Database: Embase <1974 to 2023 June 19>, OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Search Strategy:

1 (((pre or "before" or prior to or peri or undergoing) adj3 (operat* or surgery or surgical)) or preoperative or perioperative).tw. and fasting.ti. (1428)
2 (((post or intra or "after" or undergoing) adj3 (operat* or surgery or surgical)) or postoperative or perioperative).tw. and (fluid* or milk or liquid* or meal or formula or food).ti. (16886)
3 (((post or intra or "after" or undergoing) adj3 (operat* or surgery or surgical)) or postoperative or perioperative).tw. and (pain* or anaesthe* or anesthe* or narcotic* or Acetaminophen or Paracetamol or NSAID* or Nonsteroidal anti-inflammatory or Non-steroidal anti-inflammatory or Opioid*).ti. (134635)
4 (((post or intra or "after" or undergoing) adj3 (operat* or surgery or surgical)) or postoperative or perioperative).tw. and (antibiotic* or bowel preparation*).ti. (11778)
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7 or/1-6 (329306)
8 urology/ or (urological or urology or urinary).af. (1774923)
9 (Circumcision or Penile or penis or inguinal or scrotal or bladder or kidney or renal or ureter* or urethra* or prostat* or testis or testes).tw. (3662090)
10 or/8-9 (4446856)
11 7 and 10 (29002)
12 ((operation or operative or surgery or surgical or preoperative or perioperative or postoperative) and (fasting or fluid* or milk or liquid* or meal or food or formula or pain* or anaesthe* or anesthe* or narcotic* or Acetaminophen or Paracetamol or NSAID* or Nonsteroidal anti-inflammatory or Non-steroidal anti-inflammatory or Opioid* or recovery or antibiotic* or bowel preparation* or probiotic* or prokinetic* or gum or thromb*)).ti. (159629)
13 ((thrombo* or DVT or embolism or VTE or PE) and (prophyl* or prevent* or predict* or guideline* or epidemiology or systematic review or hospital* or incidence or risk factors or complications)).ti. (66879)
14 (cancer and catheter* and (thrombo* or anticoagul*)).ti. (396)
15 (Low-molecular-weight heparin* and (thromboembolism or thromboembolic or thrombo-embolism or thrombo-embolic)).tw. or (antithrombotic* or thromboprophylaxis or thrombosis or venous thromboemboic or venous thrombo-emboic or thromboembolism).ti. (198337)
16 10 and (12 or 13 or 14 or 15) (27274)
17 11 or 16 (43362)
18 exp Child/ or exp Infant/ or exp Minors/ or exp Adolescent/ or exp adolescence/ or exp Pediatrics/ or exp newborn/ or exp Puberty/ or high school/ or kindergarten/ or middle school/ or nursery school/ or primary school/ (8050383)
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21 (postmatur* or prematur* or preterm* or perinat* or boy* or girl* or teen* or minors or prepubescen* or prepuber* or pubescen* or puber*).tw. (1540092)
22 (schoolchild* or elementary school* or high school* or highschool* or kindergar* or nursery school* or primary school* or secondary school* or youth* or young or juvenil* or underage* or kinders or (under* adj age*) or under 16 or under 18).tw. (1883415)
23 or/18-22 (10896198)
24 17 and 23 (6531)
25 limit 24 to english language (5607)
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27 25 not 26 (4676)
28 case report/ or case reports/ or (case report or a rare case).ti. (5331050)
29 27 not 28 (3575)
30 note/ or editorial/ or letter/ or Comment/ or news/ or (note or editorial or letter or Comment or news).pt. (5446035)

31 29 not 30 (3490)
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33 31 not 32 (3452)
34 limit 33 to yr="2019 -Current" (945)
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36 4 or 5 or 6 or 13 or 14 or 15 (325383)
37 36 and 10 and 23 (3279)
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41 35 or 40 (1259)
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47 46 not (26 or 28 or 30 or 32) (7380)
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49 47 and 48 (1636)
50 remove duplicates from 49 (958)
51 42 or 50 (2160)
52 remove duplicates from 51 (2155)

Database: Embase <1974 to 2023 March 31>, OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Search Strategy:
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1 ((((pre or "before" or prior to or peri) adj2 (operat* or surgery or surgical)) or preoperative or perioperative) adj3 fasting).tw,kw. (2650)
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3 ((((post or intra or "after") adj2 (operat* or surgery or surgical)) or postoperative) adj3 (pain* or anaesthe* or anesthe* or narcotic* or Acetaminophen or Paracetamol or NSAID* or Nonsteroidal anti-inflammatory or Non-steroidal anti-inflammatory or Opioid*)).tw,kw. (134083)
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7 or/1-6 (154391)
8 urology/ or (urological or urology or urinary).tw,kw. (930709)
9 (Circumcision or Penile or penis or inguinal or scrotal or bladder or kidney or renal or ureter* or urethra* or prostat* or testis or testes).tw,kw. (3634525)
10 or/8-9 (4106694)
11 7 and 10 (18312)
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13 12 and 10 (6410)
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16 exp "Child Health Services"/ or exp "Child Care"/ or "Hospitals, Pediatric"/ (243286)
17 (baby or babies or child or children or pediatric* or paediatric* or peadiatric* or infan* or neonat* or newborn* or new born* or kid or kids or adolescen* or preschool or pre-school or toddler*).tw,kw. (5630575)
18 (postmatur* or prematur* or preterm* or perinat* or boy* or girl* or teen* or minors or prepubescen* or prepuber* or pubescen* or puber*).tw,kw. (1536109)
19 (schoolchild* or elementary school* or high school* or highschool* or kindergar* or nursery school* or primary school* or secondary school* or youth* or young or juvenil* or underage* or kinders or (under* adj age*) or under 16 or under 18).tw,kw. (1870389)
20 or/15-19 (10728654)
21 14 and 20 (3756)
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23 conference abstract.pt. or Congresses as Topic/ (4839481)
24 22 not 23 (2734)
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26 24 not 25 (2579)
27 note/ or editorial/ or letter/ or Comment/ or news/ or (note or editorial or letter or Comment or news).pt. (5389087)
28 26 not 27 (2555)
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sheep or lambs or pigs or piglets or rabbit or rabbits or cat or cats or dog or dogs or cattle or bovine or monkey or monkeys or trout or marmoset$1 or basic research or cell lines or in vitro or animal model or canine).tw.) not (humans/ or human/ or (men or women or patients or participants).tw.) (12928157)
30 28 not 29 (2545)
31 limit 30 to yr="2019 -Current" (671)
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34 33 and 10 and 20 (167)
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36 35 not (23 or 25 or 27 or 29) (96)
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46 44 and 45 (154)
47 remove duplicates from 46 (80)
48 47 not 39 (76)

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1.

Postoperative Pain Management in Children Undergoing Laparoscopic Appendectomy: A Scoping Review. [Review]
Alsharari AF, Alshammari FF, Salihu D, Alruwaili MM
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Healthcare. 11(6), 2023 Mar 16.
[Journal Article. Review]
UI: 36981528
Laparoscopic appendectomy (LA) is one of the most commonly performed surgical procedures in children and is associated with extreme postoperative discomfort due to peritoneal inflammation and infection. The main objective of this study was to investigate the effects of postoperative pain (POP) in children after laparoscopic appendectomy. Articles describing or evaluating the control of POP in children with LA were considered eligible. All available literature such as randomized controls, prospective controls, retrospective as well as clinical studies were considered. A comprehensive search was performed in PubMed, Medline, Embase, Cochrane Library, Clinical trials.gov, and Google scholar. The initial search took place on 23 April 2021, and was updated on 24 August 2021. There were no language or date restrictions. Each of the included articles was evaluated separately by two independent reviewers. Additional papers were found by searching the reference lists of eligible studies. Eighteen papers were considered. All papers, and many of them used different methods to treat POP in children undergoing LA, such as lidocaine infusion, different analgesic approaches, ultrasound-guided transverse abdominis blockade (UGTAP), ultrasound-guided quadratus lumborum blockade (UGQLB), and comparison of open appendectomy (OA) with local anesthetics in relation to POP management in children.

Laparoscopic appendectomy is the surgical procedure preferred by clinicians compared with open appendectomy in children. A multimodal analgesic approach is optimal and efficient surgical techniques such as UGBRSB, UGQLB, and UGTAP block might significantly impact POP in children except that there are contraindications. Dexmedetomidine proved to be an effective adjuvant that can enhance the effect of local anesthetics. The lack of a sufficient number of studies may be a factor affecting our confidence in the results of this study. Therefore, further evidence-based randomized control trials with a large sample size are needed to provide clarity.
Version ID
1
Status
PubMed-not-MEDLINE
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PMID
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10048283
Year of Publication
2023

2.

Enhanced recovery after surgery in children undergoing abdominal surgery: meta-analysis.
Hidayah BA, Toh ZA, Cheng LJ, Syahzarin BD, Zhu Y, Polkki T, He H, Mali VP
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Bjs Open. 7(1), 2023 Jan 06.
[Meta-Analysis. Journal Article]
UI: 36662629
BACKGROUND: Enhanced recovery after surgery (ERAS) is a multimodal approach that streamlines patient processes before, during, and after surgery. The goal is to reduce surgical stress responses and improve outcomes; however, the impact of ERAS programmes in paediatric abdominal surgery remains unclear. The authors aimed to review the effectiveness of ERAS on clinical outcomes in children undergoing abdominal surgery.
METHOD: CINAHL, CENTRAL, Embase, ProQuest, PubMed, and Scopus were searched for relevant studies published from inception until January 2021. The length of hospital stay (LOS), time to oral intake, time to stool, complication rates, and 30-day readmissions were measured. Meta-analyses and subgroup analyses were conducted using RevMan 5.4 with a random-effects model.
RESULTS: Among 2371 records from the initial search, 111 articles were retrieved for full-text screening and 12 were included for analyses. The pooled mean difference (MD) demonstrated reduced LOS (MD -1.96; 95 per cent c.i. -2.75 to -1.17), time to oral intake (MD -3.37; 95 per cent

c.i. -4.84 to -1.89), and time to stool (MD -4.19; 95 per cent c.i. -6.37 to -2.02). ERAS reduced postoperative complications by half and 30-day readmission by 36 per cent. Subgroup analyses for continuous outcomes suggested that ERAS was more effective in children than adolescents. CONCLUSION: ERAS was effective in improving clinical outcomes for paediatric patients undergoing abdominal surgery.

Version ID
1
Status
MEDLINE
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Hidayah, Bte Azahari, Toh, Zheng An, Cheng, Ling Jie, Syahzarin, Bin Daud, Zhu, Yi, Polkki, Tarja, He, Honggu, Mali, Vidyadhar Padmakar
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PMID
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9856339
Year of Publication
2023

3.

Error traps in the perioperative care of children with chronic pain.
D'souza G., Walia A., Agarwal R.

Embase
Paediatric Anaesthesia. (no pagination), 2023. Date of Publication: 2023.
[Review]
AN: 2021718012
Pediatric patients with a history of chronic pain frequently have complex health needs that are challenging to meet in the perioperative period. Error traps are consequences or errors that are known to occur due to either gaps in knowledge or cognitive errors. Avoiding common error traps in these children can contribute to improved patient care and patient outcomes and overall better patient and family satisfaction. In patients with chronic pain, common errors during their perioperative care included as follows: failure to adequately prepare the patient and family; failure to incorporate past pain history and therapy into current treatment plans; failure to provide adequate multimodal analgesia; and failure to provide multidisciplinary and multimodal analgesia by incorporating other services such as mental health services and physical therapy. Cognitive errors may play a role in these error traps. Recognizing and avoiding them may improve and optimize pain care and outcome.

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36785933 [https://www.ncbi.nlm.nih.gov/pubmed/?term=36785933]
Status
Article-in-Press
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Publisher
John Wiley and Sons Inc
Year of Publication
2023

4.

Pediatric morbidity after oral surgery procedures under general anaesthesia: A systematic review.
Velasco A.L., Hueso F.J.C., Silvestre F.J., Torres M.P., Vazquez-Ferreiro P.
Embase
Journal of stomatology, oral and maxillofacial surgery. 124(1) (pp 101262), 2023. Date of Publication: 01 Feb 2023.
[Article]
AN: 638731873
The aim of this study is to carry out a systematic review of the existing literature on postoperative morbidity after general anaesthesia (GA) in the dental care of paediatric patients, its frequency, characteristics and association with the intervention performed. MATERIAL AND METHODS: An exhaustive search of the literature published up to 23 February 2022 was carried out in PubMed, Web of Science, Cochrane and EBSCO, with the following strategy: (infant OR child OR adolescent) AND (Oral Surgical Procedures OR Dentistry, Operative) AND Anesthesia, General AND Postoperative Complications.
RESULT(S): The most frequent reason for the indication of general anaesthesia was dental caries and its complications (up to 91.0% of patients), followed by lack of cooperation/anxiety

and/or fear for dental procedures in the office (between 39.8 and 47.9%). There is a higher prevalence for treatments in the special patient group reaching 87.7% compared to 63.3% in healthy patients. The main comorbidities recorded were: physical or mental disability, neurological, haematological, cardiac disorders, asthma, Down's syndrome; it was not possible to establish their association with the intervention performed. Regarding complications, complaints occurred between 43.0 and 98.9% of cases within the first 24 hours, the main reason being pain (between 14.0% and 95.0%).
CONCLUSION(S): Pediatric dental procedures under GA carry a very low risk of major complications, but have a virtually universal incidence of minor complications.

PMID
35961509 [https://www.ncbi.nlm.nih.gov/pubmed/?term=35961509]
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(Vazquez-Ferreiro) Ophthalmologic Department. Hospital Virxen da Xunqueira, Cee, A Coruna, Spain
Publisher
NLM (Medline)
Year of Publication
2023

5.

Intravenous acetaminophen for postoperative pain control after open abdominal and thoracic surgery in pediatric patients: a systematic review and meta-analysis.
Archer V., Cloutier Z., Park L., Briatico D., Walton J.M.
Embase
Pediatric Surgery International. 39(1) (no pagination), 2023. Article Number: 7. Date of Publication: December 2023.
[Review]
AN: 2020312785
Pediatric opioid exposure increases short- and long-term adverse events (AE). The addition of intravenous acetaminophen (IVA) to pediatric pain regimes to may reduce opioids but is not well studied postoperatively. Our objective was to quantify the impact of IVA on postoperative pain, opioid use, and AEs in pediatric patients after major abdominal and thoracic surgery. Medline, Embase, CINAHL, Web of Science, and Cochrane Library were searched systematically for randomized controlled trials (RCTs) comparing IVA to other modalities. Five RCTs enrolling 443 patients with an average age of 2.12 years (+/- 2.81) were included. Trials comparing IVA with opioids to opioids alone were meta-analyzed. Low to very low-quality evidence demonstrated equivalent pain scores between the groups (-0.23, 95% CI -0.88 to 0.40, p 0.47) and a reduction in opioid consumption (-1.95 morphine equivalents/kg/48 h, 95% CI -3.95 to 0.05, p 0.06) and minor AEs (relative risk 0.39, 95% CI 0.11 to 1.43, p 0.15). We conclude that the addition of IVA to opioid-based regimes in pediatric patients may reduce opioid use and minor AEs without

increasing postoperative pain. Given the certainty of evidence, further research featuring patient-important outcomes and prolonged follow-up is necessary to confirm these findings.

PMID
36441255 [https://www.ncbi.nlm.nih.gov/pubmed/?term=36441255]
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Publisher
Springer Science and Business Media Deutschland GmbH
Year of Publication
2023

6.

The Perioperative Anesthetic Management of the Pediatric Patient with Special Needs: An Overview of Literature. [Review]
Ciccozzi A, Pizzi B, Vittori A, Piroli A, Marrocco G, Della Vecchia F, Cascella M, Petrucci E, Marinangeli F
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Children. 9(10), 2022 Sep 21.
[Journal Article. Review]
UI: 36291372
The perioperative management of pediatric patients with psycho-physical disorders with related relational and cognitive problems must be carefully planned, in order to make the entire hospitalization process as comfortable and as less traumatic as possible. This article reports an overview of the anesthetic management of non-cooperative patients between 6 and 14 years old. The pathologies most frequently responsible for psycho-physical disorders can be summarized into three groups: (1) collaboration difficulties (autism spectrum disorders, intellectual impairment, phobia); (2) motor dysfunction (cerebral palsy, epilepsy, other brain pathologies, neuromuscular disorders), and (3) craniofacial anomalies (Down syndrome, other genetic syndromes). Anesthesia can be performed safely and successfully due to careful management of all specific problems of these patients, such as a difficult preoperative evaluation (medical history, physical examination, blood sampling, evaluation of vital parameters and predictive indices of difficult airway) and the inapplicability of a "standard" perioperative path (timing and length of the hospitalization, anesthetic premedication, postoperative management). It is necessary to ensure a dedicated perioperative process that is safe, comfortable, tailored to specific needs, and as less traumatic as possible. At the same time, all necessary precautions must be taken to minimize possible complications.
Version ID
1
Status
PubMed-not-MEDLINE
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PMID
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9600107
Year of Publication
2022

7.

Meta-analysis of enhanced recovery after surgery protocols for the perioperative management of pediatric colorectal surgery.
Su Y., Xu L., Hu J., Musha J., Lin S.
Embase
Journal of pediatric surgery. (no pagination), 2022. Date of Publication: 06 Dec 2022.
[Review]
AN: 639982888
OBJECTIVE: This meta-analysis aimed to investigate the effects and safety of enhanced recovery after surgery (ERAS) for the management of pediatric colorectal surgery.
METHOD(S): We retrieved relevant studies from PubMed, EMBASE, the Cochrane Library, and China National Knowledgement Infrastructure (CNKI) from its inception until 20 May 2022. Meta-analysis was performed using RevMan 5.4, and power analysis was calculated using G*Power 3.1.
RESULT(S): Ten studies involving 1298 patients were included for meta-analysis. Meta-analysis suggested that ERAS protocol significantly lessened intraoperative fluids (mean difference [MD], -3.11; 95% confidence interval, -4.99 to -1.22) and postoperative opioid usage (MD, -0.58; 95% CI, -1.08 to -0.26), shortened time to bowel return (MD, -12.02; 95% CI, -20.03 to -4.02), first enteral nutrition (MD, -20.88; 95% CI, -28.34 to -13.42) and oral intake (MD, -1.40; 95% CI, -1.96 to -0.84), lowered readmission rate in 30 days (relative risk [RR], 0.61, 95% CI, 0.41 to 0.90), shortened length of hospital stay (MD, -1.50; 95% CI, -1.25 to -1.09), and reduced in-hospital costs (MD, -0.26; 95% CI, -0.34 to -0.18); however, there was a comparable rate of postoperative complications between the two groups. Sensitivity analysis significantly changed the result of the

readmission rate in 30 days. The statistical power of all outcomes ranged from 26.84% to 99.44%.
CONCLUSION(S): Our findings demonstrate the beneficial role of the ERAS protocol in accelerating rehabilitation, shortening the length of hospital stay, and decreasing in-hospital costs among pediatric patients undergoing colorectal surgery.LEVEL V.

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Publisher
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8.

Management of routine postoperative pain for children undergoing cardiac surgery: a Paediatric Acute Care Cardiology Collaborative Clinical Practice Guideline.
Gal D.B., Clyde C.O., Colvin E.L., Colyer J., Ferris A.M., Figueroa M.I., Hills B.K., Lagergren S.M., Mangum J., Mann J.L., McKeta A.S., Patel S.S., Reeves J.F., Richter M., Ring L.M., Rosenblum J.M., Tindel K., Weiner J.G., Williams K.G., Zabala L.M., Madsen N.L.
Embase
Cardiology in the young. 32(12) (pp 1881-1893), 2022. Date of Publication: 01 Dec 2022.
[Review]
AN: 639549652
BACKGROUND: Pain following surgery for cardiac disease is ubiquitous, and optimal management is important. Despite this, there is large practice variation. To address this, the Paediatric Acute Care Cardiology Collaborative undertook the effort to create this clinical practice guideline.
METHOD(S): A panel of experts consisting of paediatric cardiologists, advanced practice practitioners, pharmacists, a paediatric cardiothoracic surgeon, and a paediatric cardiac anaesthesiologist was convened. The literature was searched for relevant articles and Collaborative sites submitted centre-specific protocols for postoperative pain management. Using the modified Delphi technique, recommendations were generated and put through iterative Delphi rounds to achieve consensus.
RESULT(S): 60 recommendations achieved consensus and are included in this guideline. They address guideline use, pain assessment, general considerations, preoperative considerations, intraoperative considerations, regional anaesthesia, opioids, opioid-sparing, non-opioid medications, non-pharmaceutical pain management, and discharge considerations.
CONCLUSION(S): Postoperative pain among children following cardiac surgery is currently an area of significant practice variability despite a large body of literature and the presence of centre-specific protocols. Central to the recommendations included in this guideline is the concept that ideal pain management begins with preoperative counselling and continues through to patient

discharge. Overall, the quality of evidence supporting recommendations is low. There is ongoing need for research in this area, particularly in paediatric populations.
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9.

The Efficacy of Corticosteroids, NSAIDs, and Colchicine in the Treatment of Pediatric Postoperative Pericardial Effusion.
Somani N., Breur H.
Embase
Pediatric Cardiology. 43(2) (pp 279-289), 2022. Date of Publication: February 2022.
[Review]
AN: 2014799221

The objective of this study is to investigate and compare the efficacy of corticosteroids, NSAIDs, and colchicine in treating postoperative pericardial effusion (PPE) following cardiac surgery in the pediatric setting, on the basis of available literature. To investigate and compare the efficacy of corticosteroids, NSAIDs, and colchicine in treating postoperative pericardial effusion (PPE) following cardiac surgery in the pediatric setting, on the basis of available literature. A systematic review was conducted by carrying out a database search in PubMed on April 20th, 2021. An English language filter was added, but no time restrictions were applied. Lack of pediatric literature prompted a broadening of the search to include adult literature. One pediatric and four adult studies were included, but the pediatric evidence was not found to be of satisfactory quality, and the findings of adult literature could not be readily generalized to the pediatric setting. No well-founded conclusions could be drawn regarding the efficacy of corticosteroids, NSAIDs, or colchicine in treating PPE, as a striking lack of evidence for their efficacy in the pediatric setting were revealed. A knowledge gap was found in the literature, indicating a need for good-quality randomized controlled trials to bridge this gap.

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Publisher
Springer
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10.

Pediatric Outcomes following Cranial Vault Remodeling with Restricted Use of Postoperative Narcotics: A Retrospective Review.
Smith K.J., Cimaroli S., Loo R., Havlik R.J., Denny A.D., Klement K.A.
Embase
Plastic and reconstructive surgery. 150(6) (pp 1293e-1299e), 2022. Date of Publication: 01 Dec 2022.
[Article]
AN: 639062172
BACKGROUND: The appropriate use of narcotics for postoperative pain control is controversial because of potential medication-induced complications. The authors sought to determine the effects of narcotics in the pediatric population following cranial vault remodeling operations.
METHOD(S): A retrospective review was performed on 160 consecutive patients who underwent cranial vault remodeling for craniosynostosis.
RESULT(S): There was a statistically significant difference in total morphine equivalents in the group that experienced no emesis and those with at least one episode of emesis (0.97 morphine equivalents/kg versus 1.44 morphine equivalents/kg; p = 0.05). There was a statistically significant difference in hospital morphine equivalents in the group with documented respiratory events (average, 2.3 morphine equivalents/kg versus 1.3 morphine equivalents/kg in the nonevent group; p = 0.006). The patients who received dexmedetomidine had a trend toward a decrease in hospital narcotic administration with equivalent pain control (1.2 morphine equivalents/kg versus 1.9 morphine equivalents/kg; p = 0.09). There was a statistically significant positive correlation between total morphine equivalents for the hospitalization and hospital stay (r = 0.27, p = 0.001). The amount of morphine equivalents used in the first 24 hours was also found

to be an independent predictor of a respiratory event (p = 0.002 by multivariate logistic regression). Independent positive predictors of hospital stay were age (p < 0.001), intensive care unit time (p < 0.001), and total morphine equivalents for the hospitalization (p = 0.001) by multivariate analysis with linear regression.
CONCLUSION(S): The authors' study demonstrates improvement in outcomes with decreased use of narcotics, which establishes that there is a need to further explore postsurgical recovery outcomes with multimodal pain control. CLINICAL QUESTION/LEVEL OF EVIDENCE: Therapeutic, III.

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11.

Perioperative respiratory adverse events during ambulatory anesthesia in obese children.
Marjanovic V., Budic I., Golubovic M., Breschan C.
Embase
Irish Journal of Medical Science. 191(3) (pp 1305-1313), 2022. Date of Publication: June 2022. [Review]
AN: 2012313769
Obesity is one of the most common clinical conditions in the pediatric population with an increasing prevalence ranging from 20 to 30% worldwide. It is well known that during ambulatory anesthesia, obese children are more prone to develop perioperative respiratory adverse events (PRAEs) associated with obesity. To avoid or at least minimize these adverse effects, a thorough preoperative assessment should be undertaken as well as consideration of specific anesthetic approaches such as preoxygenation before induction of anesthesia and optimizing drug dosing. The use of short-acting opioid and nonopioid analgesics and the frequent implementation of regional anesthesia should also be included. Noninvasive airway management, protective mechanical ventilation, and complete reversion of neuromuscular blockade and awake extubation also proved to be beneficial in preventing PRAEs. During the postoperative period, continuous monitoring of oxygenation and ventilation is mandatory in obese children. In the current review, we sought to provide recommendations that might help to reduce the severity of perioperative respiratory adverse events in obese children, which could be of particular importance for reducing the rate of unplanned hospitalizations and ultimately improving the overall postoperative recovery.

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12.

Perioperative pain disparity in children: A call for action.
Tan H., Mendoza B.A., Fortier M.A., Kain Z.
Embase
Paediatric Anaesthesia. 32(12) (pp 1365-1367), 2022. Date of Publication: December 2022.
[Review]
AN: 2019279194
Racial and ethnic disparities in both healthcare management and delivery have been extensively documented in medical literature. For example, patients from non-White minority backgrounds in the United States have been found to experience worse clinical outcomes after surgery, to receive fewer surgical procedures, and to experience worse perioperative pain management compared with patients from non-minority backgrounds. A recent NIH-ACS Symposium on Surgical Disparities Research has identified an urgent need for research aimed at addressing and understanding these disparities. The present review summarizes existing literature describing perioperative pain disparities in children in the United States, as well as highlights the paucity of research in this domain. Specifically, there is a need for randomized control trials and health services research studying pediatric perioperative pain disparities. A multidisciplinary systems-based approach would help translate findings from scientific research to clinical practice and is a crucial step to ensuring all children of diverse backgrounds receive optimal perioperative care.

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Publisher
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13.

Effect of a game-based intervention on preoperative pain and anxiety in children: A systematic review and meta-analysis.
Suleiman-Martos N., Garcia-Lara R.A., Membrive-Jimenez M.J., Pradas-Hernandez L., Romero-Bejar J.L., Dominguez-Vias G., Gomez-Urquiza J.L.
Embase
Journal of clinical nursing. 31(23-24) (pp 3350-3367), 2022. Date of Publication: 01 Dec 2022.
[Article]
AN: 637118383
BACKGROUND: Games are increasingly being used as a means of alleviating pain and anxiety in paediatric patients, in the view that this form of distraction is effective, non-invasive and non-pharmacological. AIMS: To determine whether a game-based intervention (via gamification or virtual reality) during the induction of anaesthesia reduces preoperative pain and anxiety in paediatric patients.
METHOD(S): A systematic review with meta-analysis of randomised controlled trials was performed in accordance with the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines and using RevMan software. The review was based on a search of the EMBASE, CINAHL, Medline, SciELO and Scopus databases, conducted in July 2021. No restriction was placed on the year of publication.
RESULT(S): 26 studies were found, with a total study population of 2525 children. Regarding pain reduction, no significant differences were reported. For anxiety during anaesthesia induction, however, a mean difference of -10.62 (95% CI -13.85, -7.39) on the Modified Yale Preoperative Anxiety Scale, in favour of game-based intervention, was recorded.
CONCLUSION(S): Game-based interventions alleviate preoperative anxiety during the induction of anaesthesia in children. This innovative and pleasurable approach can be helpful in the care of paediatric surgical patients. RELEVANCE TO CLINICAL PRACTICE: In children, preoperative management is a challenging task for healthcare professionals, and game-based strategies could enhance results, improving patients' emotional health and boosting post-surgery recovery. Distractive games-based procedures should be considered for incorporation in the pre-surgery clinical workflow in order to optimise healthcare.

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Publisher
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14.

Pre-operative fasting in children: A guideline from the European Society of Anaesthesiology and Intensive Care.
Frykholm P., Disma N., Andersson H., Beck C., Bouvet L., Cercueil E., Elliott E., Hofmann J., Isserman R., Klaucane A., Kuhn F., de Queiroz Siqueira M., Rosen D., Rudolph D., Schmidt A.R., Schmitz A., Stocki D., Sumpelmann R., Stricker P.A., Thomas M., Veyckemans F., Afshari A.
Embase
European journal of anaesthesiology. 39(1) (pp 4-25), 2022. Date of Publication: 01 Jan 2022.
[Article]
AN: 636842816
Current paediatric anaesthetic fasting guidelines have recommended conservative fasting regimes for many years and have not altered much in the last decades. Recent publications have employed more liberal fasting regimes with no evidence of increased aspiration or regurgitation rates. In this first solely paediatric European Society of Anaesthesiology and Intensive Care (ESAIC) pre-operative fasting guideline, we aim to present aggregated and evidence-based summary recommendations to assist clinicians, healthcare providers, patients and parents. We identified six main topics for the literature search: studies comparing liberal with conservative regimens; impact of food composition; impact of comorbidity; the use of gastric ultrasound as a clinical tool; validation of gastric ultrasound for gastric content and gastric emptying studies; and early postoperative feeding. The literature search was performed by a professional librarian in collaboration with the ESAIC task force. Recommendations for reducing clear fluid fasting to 1 h, reducing breast milk fasting to 3 h, and allowing early postoperative feeding were the main results, with GRADE 1C or 1B evidence. The available evidence suggests that gastric ultrasound may be useful for clinical decision-making, and that allowing a 'light breakfast' may be well tolerated if the intake is well controlled. More research is needed in these areas as well as evaluation of how specific patient or treatment-related factors influence gastric emptying.

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15.

Comparison of different sedatives in children before general anaesthesia for selective surgery: A network meta-analysis.
Yang C.-Q., Yu K.-H., Huang R.-R., Qu S.-S., Zhang J.-M., Li Y.-L.
Embase
Journal of Clinical Pharmacy and Therapeutics. 47(10) (pp 1495-1505), 2022. Date of Publication: October 2022.
[Review]
AN: 2018802484
What is known and Objective: It is estimated that 60% of children undergoing anaesthesia develop severe preoperative anxiety. The anxiety is associated with adverse reactions. Sedatives such as dexmedetomidine, midazolam, clonidine, ketamine, and melatonin can be used as premedication against preoperative anxiety. However, no consensus has been reached on the choice of pre-anaesthetic sedatives in children before selective surgery. Therefore, the current network meta-analysis (NMA) was carried out to evaluate different sedatives in children aged between 1 and 7 before general anaesthesia for selective surgery.
Method(s): Randomized clinical trials (RCTs) were retrieved from Pubmed, Embase, Cochrane Central Register of Controlled Trials (CENTRAL), and Web of Science databases from inception to October 22, 2021. Primary outcomes showed satisfactory sedation at parent separation and also at induction or mask acceptance. Secondary outcomes were those related to added benefits and side effects. The present NMA was conducted using the R software. Results of the study were reported as Relative Risk (RR) or Mean Difference (MD) at a 95% credible intervals (CrIs).
Results and Discussion: A total of 48 trials were included in the present study. It was found that the effectiveness of dexmedetomidine, midazolam, clonidine, and ketamine were superior to that of placebo in satisfactory sedation at parent separation and induction or mask acceptance. There was no significant difference between melatonin and placebo in satisfactory sedation at induction or mask acceptance. Dexmedetomidine, ketamine, clonidine, and melatonin were superior to placebo in reducing emergence delirium (ED). In addition, midazolam prolonged the length of stay in the post anaesthesia care unit (PACU) as compared with placebo. Dexmedetomidine caused a significant reduction in systolic blood pressure (SBP) and heart rate (HR). Nevertheless, it was noted that the hemodynamic changes were roughly within safety limits. What is New and Conclusion(s): It was evident that the studied drugs can provide effective sedation with exception of melatonin and placebo. However, it was found that midazolam, ketamine, and clonidine lead to several side effects. The findings of the present study supported that dexmedetomidine, especially intranasal administration, has potential in the optimal selection of the sedatives for premedication in children. This is because the drug has effective sedation, reduced incidence of ED, side effects, and onset time.

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Publisher
John Wiley and Sons Inc
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16.

Systematic review and meta-analysis of safety and efficacy of early enteral nutrition as an isolated component of Enhanced Recovery After Surgery [ERAS] in children after bowel anastomosis surgery.
Behera B.K., Misra S., Tripathy B.B.
Embase
Journal of Pediatric Surgery. 57(8) (pp 1473-1479), 2022. Date of Publication: August 2022. [Review]
AN: 2014136425
Background: Postoperative feeding practices are not uniform in children undergoing bowel anastomosis surgery. Primary aim of this review was to evaluate the safety and efficacy of early enteral nutrition (EEN) as an isolated component of enhanced recovery in children undergoing bowel anastomosis surgery.
Method(s): Medical search engines (PubMed, CENTRAL, Google scholar) were accessed from inception to January 2021. Randomized Controlled Trials (RCT)s, non-randomized controlled trials, observational studies and retrospective studies comparing EEN, initiated within 48 h vs late enteral nutrition (LEN), initiated after 48 h in children <= 18 years undergoing bowel anastomosis surgery were included. Primary outcome measure was the incidence of postoperative complications (anastomotic leak, abdominal distension, surgical site infection, wound dehiscence, vomiting and septic complications). Secondary outcome measures were the time to passage of first feces and the length of hospital stay.
Result(s): Twelve hundred and eighty-six children from 10 studies were included in this review. No difference was seen between the EEN and LEN groups in the incidence of anastomotic leak (1.69% vs 4.13%; p = 0.06), abdominal distention (13.87% vs 12.31%; p = 0.57), wound dehiscence (3.07% vs 2.69%; p = 0.69) or vomiting (8.11% vs 8.67%; p = 0.98). The incidence of surgical site infections (7.51% vs 11.72%; p = 0.04), septic complications (14.02% vs 26.22%; p = 0.02) as well as pooled overall complications (8.11% vs 11.27%; RR 0.71; 95% CI = 0.56 to 0.89; p = 0.003; I2 = 33%) were significantly lower in the EEN group. The time to passage of first feces (MD - 17.23 h; 95% CI -23.13 to -11.34; p < 0.00001; I2 = 49%) and the length of hospital stay (MD -2.95 days; 95% CI -3.73 to -2.17; p < 0.00001; I2 = 93%) were significantly less in the EEN group.
Conclusion(s): EEN is safe and effective in children following bowel anastomosis surgery and is associated with a lower overall incidence of complications as compared to LEN. EEN also promotes early bowel recovery and hospital discharge. However, further well designed RCTs are required to validate these findings.
Level of Evidence: V

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17.

Evaluating the Impact of Cardiopulmonary Bypass Priming Fluids on Bleeding After Pediatric Cardiac Surgery: A Systematic Review and Meta-Analysis.
Siemens K., Donnelly P., Hunt B.J., Carter M.J., Murdoch I.A., Tibby S.M.
Embase
Journal of Cardiothoracic and Vascular Anesthesia. 36(6) (pp 1584-1594), 2022. Date of Publication: June 2022.
[Article]
AN: 2016382954
Objectives: Cardiopulmonary bypass (CPB) predisposes young children to coagulopathy. The authors evaluated possible effects of CPB priming fluids on perioperative bleeding in pediatric cardiac surgery.
Design(s): Meta-analysis and systematic review of previously published studies.
Setting(s): Each study was conducted in a surgical center or intensive care unit.
Participant(s): Studies investigating patients <18 years without underlying hematologic disorders were included.
Intervention(s): The authors evaluated randomized controlled trials (RCTs) published between 1980 and 2020 on MEDLINE, EMBASE, PubMed, and CENTRAL databases. The primary outcome was postoperative bleeding; secondary endpoints included blood product transfusion, mortality, and safety.
Measurements and Main Results: Twenty eligible RCTs were analyzed, with a total of 1,550 patients and a median of 66 patients per study (range 20-200). The most frequently assessed intervention was adding fresh frozen plasma (FFP) to the prime (8/20), followed by albumin (5/20), artificial colloids (5/20), and blood-based priming solutions (3/20). Ten studies with 771 patients evaluated blood loss at 24 hours in mL/kg and were included in a meta-analysis. Most of them investigated the addition of FFP to the priming fluid (7/10). No significant difference was found between intervention and control groups, with a mean difference of -0.13 (-2.61 to 2.34), p = 0.92, I2 = 69%. Further study endpoints were described but their reporting was too heterogeneous to be quantitatively analyzed.
Conclusion(s): This systematic review of current evidence did not show an effect of different CPB priming solutions on 24-hour blood loss. The analysis was limited by heterogeneity within the dataset regarding population, type of intervention, dosing, and the chosen comparator, compromising any conclusions.

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18.

Detection and assessment of postoperative pain in children with cognitive impairment: A systematic literature review and meta-analysis.
Pizzinato A., Liguoro I., Pusiol A., Cogo P., Palese A., Vidal E.
Embase
European Journal of Pain (United Kingdom). 26(5) (pp 965-979), 2022. Date of Publication: May 2022.
[Review]
AN: 2015334870
Background and Objective: Children with cognitive impairment (CI) are at risk of experiencing pain. Several specific pain rating scales have been developed to date. Thus, the aim of this meta-analysis was to estimate the degree of reliability of different pain assessment scales for the postoperative pain in children with CI. Databases and Data Treatment: PubMed, Scopus and Web of Science databases were approached: all studies validating and/or using pain assessment tool in children (0-20 years) with CI published in English from the 1st of January 2000 to the 1st of January 2022 were included. Only studies reporting the interclass correlation coefficient (ICC) to evaluate the concordance between caregivers' and external researchers' scores were eligible. Result(s): Twelve studies were included (586 children with CI, 60% males; weighted mean age 9.9 years - range 2-20). Five of them evaluated the Non-Communicating Children's Pain Checklist-Postoperative Version (NCCPC-PV) scale whereas four the original and revised Face, Legs, Activity, Cry, Consolability (FLACC) scale. The analysis showed an overall ICC value of 0.76 (0.74-0.78) for the NCCPC-PV scale, with a high heterogeneity index (I2 = 97%) and 0.87 (0.84-0.90) for the FLACC scale, with a discrete I2 index (59%).
Conclusion(s): The NCCPC-PV and FLACC pain rating scales showed the strongest evidence for validity and reliability for assessing postoperative pain in children with CI. However, due to the high heterogeneity of the studies available, these results should not be considered conclusive. Significance: This review is focused on the assessment of pain in children with CI in the postoperative period. Simplified observation-based pain assessment tools that rely on evaluating non-verbal expressions of pain should be recommended for children with difficulties to communicate their feelings. Even if there is a high degree of heterogeneity in clinical presentations among youth with CI, two tools (NCCPC-PV and FLACC) have emerged as reliable and valid in this population.

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35271756 [https://www.ncbi.nlm.nih.gov/pubmed/?term=35271756]
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Publisher
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19.

Diclofenac for acute postoperative pain in children.
Ringsten M., Kredo T., Hohlfeld A., Bruschettini M.
Embase
Cochrane Database of Systematic Reviews. 2022(4) (no pagination), 2022. Article Number: CD015087. Date of Publication: 08 Apr 2022.
[Review]
AN: 637711927
Objectives: This is a protocol for a Cochrane Review (intervention). The objectives are as follows:. To assess the efficacy and safety of diclofenac (any dose) for acute postoperative pain management in children compared with placebo, other active comparators, or diclofenac administered by either different routes (e.g. oral, rectal, etc.) or strategies (e.g. as needed versus as scheduled).

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Publisher
John Wiley and Sons Ltd
Year of Publication
2022

20.

Review of clinical evidence of caudal block for postoperative analgesia in children with ketamine added local anesthetics.
Endeshaw A.S., Aligaz E.M., Molla M.T., Mekonnen B.A., Tesema A.T., Dinku T.A., Atero K.B., Regassa T.L.
Embase
Annals of Medicine and Surgery. 75 (no pagination), 2022. Article Number: 103480. Date of Publication: March 2022.
[Review]

AN: 2017181208
Background: Adding ketamine to local anesthetics used for caudal block in children is an emerging clinical practice. This review aims to resolve controversies related to this adjuvant for a caudal block in children who underwent sub-umbilical surgeries.
Method(s): Between January 2010 and November 2021, PubMed, Cochrane Review, and Google Scholar were searched for a caudal block with ketamine added local anesthetics for children. After screening for eligibility and removing duplicates, 38,187 articles were found, 13 reviewed.
Discussion(s): Despite adding ketamine to local anesthetics used for a caudal block, it is a recent technique practiced worldwide. Ketamine showed equi-efficacious as other adjuvants used for the caudal block to control postoperative pain in children.
Conclusion(s): Ketamine with a 0.5 mg/kg dose is safe and effective to manage postoperative children's pain when used as an adjuvant to local anesthetics used for caudal block.

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Publisher
Elsevier Ltd
Year of Publication
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21.

Risk assessment and optimization strategies to reduce perioperative respiratory adverse events in pediatric anesthesia-Part 1 patient and surgical factors.
Hii J., Templeton T.W., Sommerfield D., Sommerfield A., Matava C.T., von Ungern-Sternberg B.S.
Embase
Paediatric Anaesthesia. 32(2) (pp 209-216), 2022. Date of Publication: February 2022.
[Review]
AN: 2014498046
Pediatric surgery cases are increasing worldwide. Within pediatric anesthesia, perioperative respiratory adverse events are the most common precipitant leading to serious complications. They can have intraoperative impact on the surgical procedure itself, lead to premature case termination and in addition may have postoperative impact resulting in longer hospitalization stays and costs. Although most perioperative respiratory adverse events can be promptly detected and managed, and will not lead to any sequelae, the risk of life-threatening progression remains. The incidence of respiratory adverse events increases in children with comorbid respiratory and/or nonrespiratory illnesses. Optimized perioperative patient care, risk-stratified care level choice, and practitioners with appropriate training allow for risk mitigation. This review will discuss patient and surgical risk factors with a focus on common patient comorbid illnesses and review scoring systems to quantify risk.

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Publisher
John Wiley and Sons Inc
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22.

Enhanced Recovery After Surgery for Pediatric Cleft Repair: A Systematic Review and Meta-Analysis.
Shin M., Wagner C., Prasad A., Barrette L.-X., Chorath K., Moreira A., Rajasekaran K.
Embase
The Journal of craniofacial surgery. 33(6) (pp 1709-1713), 2022. Date of Publication: 01 Sep 2022.
[Article]
AN: 638919923
OBJECTIVE: Perform a systematic review assessing the efficacy of enhanced recovery after surgery (ERAS) protocols for cleft palate repair. Primary outcomes included hospital length of stay, readmission rates, and postoperative narcotic use. Secondary outcomes included complications, time to initial postoperative oral intake, and pain scores. DATA SOURCES: Cohort and randomized studies of ERAS protocols pertaining to cleft palate repair were identified by systematic review of Medline, Scopus, Embase, and grey literature. REVIEW METHODS: Data extracted included patient demographics, clinical care protocols, complication rates, postoperative narcotic use, time to initial postoperative oral intake, hospital length of stay, family satisfaction, and 30-day readmission. Meta-analysis was used to compare outcomes between patients enrolled in ERAS protocols versus those in conventional care pathways.
RESULT(S): Eight hundred sixty-five articles were screened, and 5 studies met full inclusion criteria. A total of 425 patients were included. Patients in ERAS protocols saw a mean reduction

of - 23.96 hours in length of stay compared to controls (95% confidence interval [CI]: - 26.4, - 20.6). Patients in ERAS protocols also had decreased total morphine consumption (mean difference [MD]: - 3.88 mg; CI: - 4.31, - 3.45), and decreased time to first initial feed compared to controls (MD: - 3.88 hours; CI: - 4.3, - 3.5). There was no difference in readmission rates or complication rates between ERAS and control groups.
CONCLUSION(S): ERAS protocols have seen limited use in pediatric patients. The present study sought to assess the impact of ERAS protocols following primary palatoplasty. Our results indicate decreased hospital length of stay, postoperative opioid consumption, and time to feeding, without increasing readmission rates or complication rates.

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36054887 [https://www.ncbi.nlm.nih.gov/pubmed/?term=36054887]
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23.

Postoperative Opioid Prescribing, Use, and Disposal in Children.
Odegard M., Kelley-Quon L.I.
Embase
Advances in pediatrics. 69(1) (pp 259-271), 2022. Date of Publication: 01 Aug 2022.
[Review]
AN: 638795111
This article provides an overview of postoperative opioid prescribing, use, and disposal patterns in children and also identifies gaps in knowledge and areas for improvement. We present evidence that there is a need to tailor prescriptions to specific procedures to reduce the number of excess, unused prescription opioid pills in the home. We also explain the need to provide culturally competent care when managing a child's pain after surgery. Finally, we discuss the need for widespread provider and caregiver education about safe prescription opioid use, storage, and disposal.

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Publisher
NLM (Medline)
Year of Publication

2022

24.

Risk assessment and optimization strategies to reduce perioperative respiratory adverse events in Pediatric Anesthesia-Part 2: Anesthesia-related risk and treatment options.
Templeton T.W., Sommerfield D., Hii J., Sommerfield A., Matava C.T., von Ungern-Sternberg B.S.
Embase
Paediatric Anaesthesia. 32(2) (pp 217-227), 2022. Date of Publication: February 2022.
[Review]
AN: 2014481161
Perioperative respiratory adverse events are the most common cause of critical events in children undergoing anesthesia and surgery. While many risk factors remain unmodifiable, there are numerous anesthetic management decisions which can impact the incidence and impact of these events, especially in at-risk children. Ongoing research continues to improve our understanding of both the influence of risk factors and the effect of specific interventions. This review discusses anesthesia risk factors and outlines strategies to reduce the rate and impact of perioperative respiratory adverse events with a chronologic based inquiry into anesthetic management decisions through the perioperative period from premedication to postoperative disposition.

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Embase
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Publisher
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25.

Anesthesia in Children with Neuroblastoma, Perioperative and Operative Management. [Review]
Tognon C, Pulvirenti R, Fati F, De Corti F, Viscardi E, Volpe A, Gamba P
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Children. 8(5), 2021 May 14.
[Journal Article. Review]
UI: 34068896
Neuroblastoma (NB) is the most common extracranial, solid, pediatric malignancy and, despite the constant progress of treatment and development of innovative therapies, remains a complex, challenging disease causing major morbidity and mortality in children. There is significant variability in the management of neuroblastoma, partially due to the heterogeneity of the clinical and biological behavior, and partially secondary to the different approaches between treating institutions. Anesthesia takes an integral part in the multidisciplinary care of patients with NB, from diagnosis to surgery and pain control. This paper aims to review and discuss the critical steps of the perioperative and operative management of children undergoing surgery for neuroblastoma. Anesthesia and analgesia largely depend on tumor location, surgical approach, and extension of the surgical dissection. Attention should be paid to the physio-pathological changes on cardiovascular, gastrointestinal, and immune systems induced by the tumor or by chemotherapy. At the time of surgery meticulous patient preparation needs to be carried out to optimize intraoperative monitoring and minimize the risk of complications. The cross-sectional role of anesthesia in cancer care requires effective communication between all members of the multidisciplinary team.
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Year of Publication
2021

26.

The American Association for Thoracic Surgery Congenital Cardiac Surgery Working Group 2021 consensus document on a comprehensive perioperative approach to enhanced recovery after pediatric cardiac surgery. [Review]
Fuller S, Kumar SR, Roy N, Mahle WT, Romano JC, Nelson JS, Hammel JM, Imamura M, Zhang H, Fremes SE, McHugh-Grant S, Nicolson SC
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Journal of Thoracic & Cardiovascular Surgery. 162(3):931-954, 2021 Sep.
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Year of Publication
2021

27.

Enhanced recovery after surgery in children.
Rafeeqi T., Pearson E.G.
Embase
Translational Gastroenterology and Hepatology. 6 (no pagination), 2021. Article Number: A7. Date of Publication: July 2021.
[Review]
AN: 2013872568
Enhanced recovery after surgery (ERAS) is a systematic approach to optimize a patient's health and improve clinical outcomes, increase patient satisfaction and decrease healthcare costs. Enhanced recovery protocols have been used across a variety of surgical disciplines and patient groups to improve patient safety and reduce hospital length of stay without increasing return visits to the system. ERAS involves the application of clinical decision making throughout the patient experience with interventions in the preoperative, perioperative and post operative phases. In addition, ERAS is multidisciplinary and the success of an ERAS program is dependent on the effort and integration of stakeholders across the healthcare system. Utilization of ERAS systems have grown across the global adult surgical community over the last three decades and adoption in pediatric surgery has only occurred recently. Hospitals in both adult and pediatric surgery have found that implementation of ERAS systems lead to a shortened length of stay and reduced complications without increasing patient returns to the system. Importantly patients who have surgery within an ERAS program experience less pain, less opioid utilization, a quicker recovery and increased satisfaction. In pediatric surgery ERAS has successfully been employed across most all disciplines from congenital cardiac surgery to colorectal surgery. The evolution of ERAS continues as a paradigm of quality and safety.

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Publisher
AME Publishing Company
Year of Publication
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28.

Parental factors influencing postoperative pain in children: a systematic review / Parental factors and postoperative pain.
Van Looveren L., Berghmans J., Vanlinthout L., Goubert L.
Embase
Acta Anaesthesiologica Belgica. 72 (pp 225-234), 2021. Date of Publication: December 2021.
[Article]
AN: 2021245525
Context: Postoperative pain after surgery in children is an underestimated and complex problem. Several predictors which contribute to this poor outcome are linked to child, system, medication or parental factors. Parents are important partners in an efficient postoperative pain management.

Objective(s): To examine which specific parental factors might be associated with postoperative pain of children. Data sources: Pubmed/MEDLINE, Web of Science, Cochrane database, Embase and PsycARTICLES Study selection: Inclusion of studies written in english which examine specific parental related predictors for increased postoperative pain in children aged up to 18 years. Randomized controlled trials, observational, cohort, case-control, case series, cross sectional were included from January 1995 up until April 2021. Data extraction and Data synthesis: A data extraction form was used and due to clinical and methodological heterogeneity the findings are presented in a narrative form.
Result(s): Out of 647 search results, 22 studies were withheld in the final analysis. The parental related predictors can be grouped in five categories: culture; lack of knowledge; attitude; anxiety and parental pain catastrophizing.
Limitation(s): The results indicate a high level of heterogeneity.
Conclusion(s): Parental related risk factors found seem to be associated with worse child postoperative pain scores but additional studies are needed.

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Publisher
BeSARPP
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2021

29.

Vaping and E-Cigarette Use in Children and Adolescents: Implications on Perioperative Care from the American Society of Anesthesiologists Committee on Pediatric Anesthesia, Society for Pediatric Anesthesia, and American Academy of Pediatrics Section on Anesthesiology and Pain Medicine.
Rusy D.A., Honkanen A., Landrigan-Ossar M.F., Chatterjee D., Schwartz L.I., Lalwani K., Dollar J.R., Clark R., Diaz C.D., Deutsch N., Warner D.O., Soriano S.G.
Embase
Anesthesia and Analgesia. 133(3) (pp 562-568), 2021. Date of Publication: 01 Sep 2021. [Review]
AN: 635767641
Electronic cigarettes (e-cigarettes) or vaping use in adolescents has emerged as a public health crisis that impacts the perioperative care of this vulnerable population. E-cigarettes have become the most commonly used tobacco products among youth in the United States. Fruit and mint flavors and additives such as marijuana have enticed children and adolescents. E-cigarette, or vaping, product use-Associated lung injury (EVALI) is a newly identified lung disease linked to vaping. Clinical presentation of EVALI can be varied, but most commonly includes the respiratory system, gastrointestinal (GI) tract, and constitutional symptoms. Clinical management of EVALI has consisted of vaping cessation and supportive therapy, including supplemental oxygen, noninvasive ventilation, mechanical ventilation, glucocorticoids, and empiric antibiotics, until infectious causes are eliminated, and in the most severe cases, extracorporeal membrane

oxygenation (ECMO). Currently, although there is an insufficient evidence to determine the safety and the efficacy of e-cigarettes for perioperative smoking cessation, EVALI clearly places these patients at an increased risk of perioperative morbidity. Given the relatively recent introduction of e-cigarettes, the long-Term impact on adolescent health is unknown. As a result, the paucity of postoperative outcomes in this potentially vulnerable population does not support evidence-based recommendations for the management of these patients. Clinicians should identify "at-risk" individuals during preanesthetic evaluations and adjust the risk stratification accordingly. Our societies encourage continued education of the public and health care providers of the risks associated with vaping and nicotine use and encourage regular preoperative screening and postoperative outcome studies of patients with regard to smoking and vaping use.

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33780391 [https://www.ncbi.nlm.nih.gov/pubmed/?term=33780391]
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Publisher
Lippincott Williams and Wilkins
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2021

30.

Postoperative pain management in pediatric cleft lip and palate repair.
Flowers T., Winters R.
Embase
Current Opinion in Otolaryngology and Head and Neck Surgery. 29(4) (pp 294-298), 2021. Date of Publication: 01 Aug 2021.
[Review]
AN: 2018772301
Purpose of reviewThere has been an increased interest in the literature on methods to improve perioperative outcomes in surgical patients while minimizing opioid use. Pediatric cleft palate

repair can be a painful procedure, and this postoperative pain can lead to longer hospital stays and worse surgical outcomes.Recent findingsRecent literature has explored four key areas surrounding analgesia after cleft lip and palate repair. These areas are management of postoperative pain with nonopioid oral analgesics, peripheral nerve blockade, liposomal bupivacaine for donor-site analgesia in bone grafting, and enhanced recovery after surgery (ERAS) protocols.SummaryThe included studies indicate that patients undergoing palatoplasty may have a decreased opioid requirement if nonopioid analgesics such as acetaminophen and ibuprofen are started early in the postoperative setting. Peripheral nerve blockade is an important adjunct to analgesia in these patients. Suprazygomatic maxillary nerve blockade may improve pain management over traditional infraorbital nerve blockade. In patients undergoing alveolar bone grafting, injection of liposomal bupivacaine into the donor site can significantly decrease oral opioid requirements. Finally, ERAS protocols are emerging ways to decrease postoperative pain in cleft palate patients.

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Publisher
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Year of Publication
2021

31.

Systematic review and meta-analysis of the effects of the perioperative enhanced recovery after surgery concept on the surgical treatment of acute appendicitis in children.
Zhang A., Lu H., Chen F., Wu Y., Luo L., Sun S.
Embase
Translational Pediatrics. 10(11) (pp 3034-3045), 2021. Date of Publication: November 2021. [Review]
AN: 2015753585
Background: Enhanced recovery after surgery (ERAS), as a new concept in surgery, has dramatically changed the mode of perioperative treatment for children with acute appendicitis.
Method(s): The retrieval strategy developed by the Cochrane Collaboration was conducted using the CNKI database, Wanfang Medical Network, PubMed, EBSCO, Medline, and Cochrane database by combining subject headings and free words. A review of the randomized controlled trials on the use of the ERAS concept in the perioperative treatment of acute appendicitis in children was conducted between the establishment of the database and May 15, 2021. Keywords included enhanced recovery after surgery, fast track surgery, ERAS, FTS, child, infant, and appendicitis. The quality of the literature was evaluated according to the RevMan 5.3 software provided by the Cochrane Collaboration.
Result(s): Five randomized controlled trials on ERAS in children with acute appendicitis were finally included. The heterogeneity of postoperative stay time was tested in 4 studies using continuous variables, with Chi-squared test (Chi2) =221.52, degree of freedom (df) =3, I2=99%>50%. An overall analysis using a random effects model showed that the ERAS group was significantly different compared to the control group [Z=5.26; mean difference (MD) =-1.65; 95% CI: -2.27 to -1.03; P<0.00001]. The heterogeneity of the readmission rate was tested in 5 studies using dichotomous variables, with Chi2=5.11, df =3, I2=41%<50%, P=0.91. Overall

analysis using a fixed effects model showed no statistically significant difference between the ERAS group and the control group [Z=0.80; odds ratio (OR) =1.16; 95% CI: 0.81 to 1.66; P=0.42]. The heterogeneity of the recurrence rate was tested in 4 studies using dichotomous variables, with Chi2=3.73, df =3, I2=20%<50%, P=0.29. Overall analysis using a fixed effects model showed no statistically significant difference between the ERAS group and the control group (Z=1.14; OR =0.76; 95% CI: 0.47 to 1.22; P=0.26).
Discussion(s): The results of the meta-analysis confirmed that perioperative application of the ERAS concept in children with acute appendicitis can promote the rehabilitation of children, reduce the postoperative stay time, and reduce the readmission rate and reoperation rate.

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Publisher
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32.

Clonidine as an Additive to Local Anesthetics in Caudal Block for Postoperative Analgesia in Pediatric Surgery: A Systematic Review and Meta-Analysis.
Wang Y., Guo Q., An Q., Zhao L., Wu M., Guo Z., Zhang C.
Embase
Frontiers in Medicine. 8 (no pagination), 2021. Article Number: 723191. Date of Publication: 14 Sep 2021.
[Review]
AN: 636082240
Background: Clonidine is an anesthetic with favorable efficacy and safety profiles for caudal epidural block, but comparisons with other adjuvants need to be confirmed in pediatric patients.
Aim(s): To investigate the effects of clonidine as an adjuvant in caudal epidural block to improve the intraoperative and postoperative analgesia in pediatric surgery.
Method(s): PubMed, Embase, and the Cochrane Library were searched for available papers published up to February 2021. The outcomes were pain score, duration of analgesia, complications, and number of analgesic requirements. The meta-analysis was performed using random-effects models.
Result(s): Fifteen randomized controlled trials (RCTs) were included. There were no differences between clonidine and the control drug regarding the duration of analgesia (SMD = -0.71, 95%CI: -1.64, 0.23; I2 = 95.5%, Pheterogeneity < 0.001), pain score (SMD = 0.35, 95%CI: -0.28, 0.98; I2 = 80.8%, Pheterogeneity < 0.001), and requirement for additional analgesia (OR = 8.77, 95%CI: 0.70, 110.58, I2 = 81.9%, Pheterogeneity = 0.004), but using clonidine resulted in fewer complications than the control drugs (OR = 0.33, 95%CI: 0.20, 0.54, I2 = 21.8%, Pheterogeneity = 0.217). The sensitivity analysis showed that the results were robust. A publication bias was observed.
Conclusion(s): Clonidine has the same efficacy as the other adjuvants for caudal epidural block for pediatric surgery but fewer complications. These results support clonidine as an adjuvant to local anesthetic, but additional studies should be conducted.

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Publisher
Frontiers Media S.A.
Year of Publication
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33.

Pediatric perioperative fluid management.
Mathew A., Rai E.
Embase
Saudi Journal of Anaesthesia. 15(4) (pp 435-440), 2021. Date of Publication: October-December 2021.
[Review]
AN: 635935511
Appropriate fluid management is vital for adequate tissue perfusion and balancing the internal milieu especially in perioperative settings and critically ill children. Pediatric population is heterogeneous so one formula may not suffice and hence both the quantitative and qualitative perspective of fluid management should be based on physiology and pathology of the child along with their perioperative needs. In perioperative setup, the fluid is administered to meet fluid deficits (fasting, and other daily based losses), blood losses and third space losses. Anesthetists have always followed pediatric maintenance fluid calculations based on Holiday and Segar formula; based on studies conducted on healthy children more than 70 years ago. Recently, there has been a lot of debate about this concept, especially as there are serious concerns regarding the development of complications like hyponatremia and hyperglycemia, both of which can result in neurological damage or even mortality in a sick child. This review is an attempt to provide a historical perspective and current evidence-based approach to peri-operative pediatric fluid management. We performed a PUBMED search for articles using keywords including 'children', 'intravenous fluid therapy', 'crystalloids', 'colloids', 'fluid homeostasis', 'blood loss', 'estimation of blood loss', 'blood loss management','perioperative fluid 'to get our source articles.

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34.

The effect of acupuncture on postoperative pain, nausea and vomiting after pediatric tonsillectomy: A systematic review.
Pouy S., Etebarian A., Azizi-Qadikolaee A., Saeidi S.
Embase
International Journal of Adolescent Medicine and Health. 33(5) (no pagination), 2021. Article Number: 20180285. Date of Publication: 01 Oct 2021.
[Review]
AN: 627246830
Introduction: Tonsillectomy is one of the most commonly performed surgical procedures among children around the world and management of post tonsillectomy complications are very important.
Objective(s): The aim of this study was to evaluate the effects of acupuncture on the amount of pain, nausea and vomiting after tonsillectomy in children.
Method(s): In this study, two researchers searched individually for qualified articles on the effects of acupuncture on post-tonsillectomy pain, nausea and vomiting using PubMed, Cochrane Library, Embase, Google scholar and Ovid databases by September 2018.
Result(s): After critically appraising the searched studies, 12 studies were selected and entered into a systematic review. Among the studies, various acupuncture methods were used.
Conclusion(s): This systematic review shows that acupuncture as a complementary method can prevent and reduce the severity of complications surrounding tonsillectomy.

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Publisher
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35.

Effects of erector spinae plane block on postoperative pain in children undergoing surgery: A systematic review and meta-analysis of randomized controlled trials.
Luo R., Tong X., Yan W., Liu H., Yang L., Zuo Y.
Embase
Paediatric Anaesthesia. 31(10) (pp 1046-1055), 2021. Date of Publication: October 2021.
[Review]
AN: 2013334279
Background: The erector spinae plane block is a novel regional anesthetic technique that is gaining popularity in pediatrics. However, the efficacy of erector spinae plane block in children is unclear. The aim of the systematic review and meta-analysis was to investigate effects of erector spinae plane block on postoperative pain relief in children.

Method(s): We searched MEDLINE, Cochrane Library, EMBASE, China National Knowledge Infrastructure, and Wan fang databases for randomized controlled trials that compared erector spinae plane block with no block or other types of block in pediatric patients undergoing surgeries. The primary outcomes were pain intensity at rest within 24 h postoperatively and the number of patients requiring rescue analgesics. Data were analyzed using the fixed- or random-effects model, depending on whether the heterogeneity tested by the I2 statistic was >30%. We assessed the quality of evidence for the outcomes using the Grading of Recommendations, Assessment, Development, and Evaluation method.
Result(s): Seven randomized controlled trials involving 379 patients were reviewed. Compared with no block, erector spinae plane block slightly reduced the pain scores at 0 h (standardized mean difference [SMD]: -1.07; 95% confidence interval [CI]: -1.60 to -0.54; I2 = 52%), 6 h (SMD: -0.82; 95% CI: -1.39 to -0.25; I2 = 79%) postoperatively at rest and significantly reduced the need for rescue analgesics (odds ratio 0.09; 95% CI: 0.04 to 0.21; I2 = 16%). One trial demonstrated the analgesic effect of erector spinae plane block was similar to a quadratus lumborum block, while another trial demonstrated the analgesic effect of ESPB was superior to an ilioinguinal nerve block.
Conclusion(s): This review provides low-quality evidence that erector spinae plane block exhibits superior analgesia compared to no block in children. Due to the limited data, evidence regarding the comparison with other regional blocks remains unclear. Future large-sized and well-designed randomized controlled trials are needed.

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Publisher
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36.

Enhanced Recovery After Gastrointestinal Surgery (ERAS) in Pediatric Patients: a Systematic Review and Meta-analysis.
Arena S., Di Fabrizio D., Impellizzeri P., Gandullia P., Mattioli G., Romeo C.
Embase
Journal of gastrointestinal surgery : official journal of the Society for Surgery of the Alimentary Tract. 25(11) (pp 2976-2988), 2021. Date of Publication: 01 Nov 2021.

[Article]
AN: 635578445
AIM: To systematically review literature and to assess the status of the ERAS protocol in pediatric populations undergoing gastrointestinal surgery.
METHOD(S): Literature research was carried out for papers comparing ERAS and traditional protocol in children undergoing gastrointestinal surgery. Data on complications, hospital readmission, length of hospital stay, intraoperative fluid volume, post-operative opioid usage, time to defecation, regular diet, intravenous fluid stop, and costs were collected and analyzed. Analyses were performed using OR and CI 95%. A p value <0.05 was considered significant.
RESULT(S): A total of 8 papers met the inclusion criteria, with 943 included patients. There was no significant difference in complication occurrence and 30-day readmission. Differently, length of stay, intraoperative fluid volume, post-operative opioid use, time to first defecation, time to regular diet, time to intravenous fluid stop, and costs were significantly lower in the ERAS groups.
CONCLUSION(S): ERAS protocol is safe and feasible for children undergoing gastrointestinal surgery. Without any significant complications and hospital readmission, it decreases length of stay, ameliorates the recovery of gastrointestinal function, and reduces the needs of perioperative infusion, post-operative opioid administration, and costs.

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34244952 [https://www.ncbi.nlm.nih.gov/pubmed/?term=34244952]
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37.

Length of stay in enhanced recovery after surgery in children: A meta-analysis.
Assaker R., Fait C., Julien-Marsollier F., Idelcadi S., Houmaida F., Brasher C., Dahmani S.
Embase
European journal of anaesthesiology. 38(7) (pp 796-797), 2021. Date of Publication: 01 Jul 2021.
[Article]
AN: 635287017
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34101647 [https://www.ncbi.nlm.nih.gov/pubmed/?term=34101647]
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Publisher
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38.

The comparison of ketamine with tramadol for postoperative pain relief on children following adenotonsillectomy or tonsillectomy: A meta-analysis of randomized controlled trials.
Wang L., Guo Y., Tian J.
Embase
Medicine. 100(14) (pp e22541), 2021. Date of Publication: 09 Apr 2021.
[Article]
AN: 634777652
INTRODUCTION: The comparison of ketamine with tramadol for pain control remains controversial in pediatric adenotonsillectomy or tonsillectomy. We conduct a systematic review and meta-analysis to explore the efficacy of ketamine vs tramadol for pain relief in children following adenotonsillectomy or tonsillectomy.
METHOD(S): We have searched PubMed, EMbase, Web of science, EBSCO, and Cochrane library databases through October 2019 for randomized controlled trials (RCTs) assessing the effect of ketamine vs tramadol for pediatric adenotonsillectomy or tonsillectomy. This meta-analysis is performed using the random-effects model.
RESULT(S): Six RCTs are included in the meta-analysis. Overall, compared to ketamine group for pediatric adenotonsillectomy or tonsillectomy, tramadol is associated with substantially lower CHEOPS at 1 h (SMD = 1.56; 95% CI = 0.20-2.92; P = .02; low quality) and longer first time of additional pain medication (SMD = -0.47; 95% CI = -0.74 to -0.19; P = .0008; low quality), but demonstrates no obvious effect on CHEOPS at 6 h (SMD = 0.51; 95% CI = -1.17 to 2.19; P = .55; low quality), sedation scale at 1 h (SMD = -0.80; 95% CI = -3.07 to 1.48; P = .49; low quality) or additional pain medication (RR = 1.31; 95% CI = 0.85-2.02; P = .23; moderate quality).
CONCLUSION(S): Tramadol may be better to alleviate the postoperative pain after pediatric adenotonsillectomy or tonsillectomy.

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39.

Prevention and treatment of postoperative pain in pediatric patients undergone craniotomy: Systematic review of clinical evidence.
Kulikov A., Tere V., Sergi P.G., Bilotta F.
Embase
Clinical Neurology and Neurosurgery. 205 (no pagination), 2021. Article Number: 106627. Date of Publication: June 2021.
[Review]
AN: 2011658224
Background: Prevention and treatment of postoperative pain after craniotomy in pediatric patients is an open and challenging clinical problem due to limited epidemiological data and significant concerns on safety of the most common analgesics in neurosurgical patients. We reviewed the literature to evaluate the possible available strategies in pain management in pediatric patients.
Method(s): The systematic review was performed in accordance with PRISMA statement recommendations. PUBMED, EMBASE and Scopus databases were queried. Inclusion criteria were: randomized controlled trials, prospective and retrospective observational studies published before 2020 and reported postoperative pain management after craniotomy (i.e. including studies accomplished after craniotomy, craniectomy and reconstructive surgery) in children population (neonates to 18 years old).
Result(s): A total of 11 studies - 4 randomized controlled, 5 prospective observational and 2 retrospective met criteria for inclusion. The selected studies reported data from a total of 1077 patients, with age ranging between neonates to 18 years, 52% male and 48% female. Opioids are still the most commonly used drugs. Paracetamol and NSAIDs are frequently used as adjuvants to reduce postoperative opioid requirements. Data on potential hypocoagulation due to the antiplatelet effect of NSAIDs are lacking. Selective scalp block provides lower pain scores in early postoperative period.
Conclusion(s): Clinical evidence on prevention and treatment of postoperative pain in pediatric patients undergone craniotomy is still sparse. Available data prove that a multimodal approach, realized as the use a combination of opioids, paracetamol/NSAIDs and regional anesthesia, is effective and rarely associate with complications.

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Publisher
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40.

State of the Art: Immersive Technologies for Perioperative Anxiety, Acute, and Chronic Pain Management in Pediatric Patients.
Alqudimat M., Mesaroli G., Lalloo C., Stinson J., Matava C.

Embase
Current Anesthesiology Reports. 11(3) (pp 265-274), 2021. Date of Publication: September 2021.
[Review]
AN: 2013148172
Purpose of Review: This review summarizes and provides a comprehensive narrative synthesis of the current evidence on immersive technology's (i.e., virtual and augmented Reality) use for perioperative anxiety, acute, and chronic pain in pediatrics. Recent Findings: Researchers have increasingly studied immersive technology as a non-pharmacological alternative for perioperative anxiety, acute, and chronic pain management. We found several research studies published over the last 3 years: almost all studies examined the use of virtual reality for perioperative anxiety and pain; only one case report was about the use of augmented reality for preoperative anxiety. Most studies showed that virtual reality intervention is effective and safe for perioperative anxiety, acute, and chronic pain. However, the studies are heterogeneous with relatively small sample sizes.
Summary: This review shows that more high-quality studies (i.e., randomized controlled trials with larger sample sizes and standardized methods for measuring and reporting outcomes) are needed to examine the effectiveness and adverse effects of virtual reality intervention on perioperative anxiety, acute, and chronic pain in pediatrics.

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Publisher
Springer
Year of Publication
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41.

Enhancing recovery after minimally invasive surgery in children: A systematic review of the literature and meta-analysis.
Dagorno C., Montalva L., Ali L., Brustia R., Paye-Jaquen A., Pio L., Bonnard A.
Embase
Journal of Pediatric Surgery. 56(12) (pp 2157-2164), 2021. Date of Publication: December 2021.
[Review]
AN: 2012121008
Objective: Enhanced recovery after surgery (ERAS) has been widely implemented after minimally invasive surgeries (MIS) in adults. The aim of this study was to evaluate the current evidence available on ERAS after MIS in children.

Method(s): Using a defined search strategy (PubMed, Cochrane, Scopus), we performed a systematic review of the literature, searching for studies reporting on ERAS after MIS (thoracoscopy, laparoscopy, retroperitoneoscopy) in children (1975-2019). This study was registered with PROSPERO-international prospective register of systematic reviews. A meta-analysis was conducted using comparative studies for length of stay (LOS), complication rates, and readmission rates.
Result(s): Of 180 abstracts screened, 20 full-text articles were analyzed, and 9 were included in our systematic review (1 randomized controlled trial, 3 prospective, and 5 retrospective studies), involving a total number of 531 patients. ERAS has been applied to laparoscopy for digestive (n = 7 studies) or urologic surgeries (n = 1), as well as thoracoscopy (n = 1). Mean LOS was decreased in ERAS children compared to controls (6 studies, -1.12 days, 95%IC: -1.5 to -0.82, p < 0.00001). There was no difference in complication rates between ERAS children and control children (5 studies, 13% vs 14%, OR = 0.84, 95%CI: 0.49-1.44, p = 0.52). The 30-day readmission rate was decreased in ERAS children compared to controls (6 studies, 4% vs 10%, OR = 0.34, 95%CI: 0.18-0.66, p = 0.001).
Conclusion(s): Although the evidence regarding ERAS in MIS is scarce, these protocols seem safe and effective, by decreasing LOS and 30-day readmission rate, without increasing post-operative complication rates.

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W.B. Saunders
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42.

Pain Management in Children: NSAID Use in the Perioperative and Emergency Department Settings.
Cooney M.F.
Embase
Pediatric Drugs. 23(4) (pp 361-372), 2021. Date of Publication: July 2021.
[Review]
AN: 2011636355
Nonsteroidal anti-inflammatory drugs (NSAIDs) are often used for pediatric pain management in the emergency setting and postoperatively. This narrative literature review evaluates pain relief, opioid requirements, and adverse effects associated with NSAID use. A PubMed search was conducted to identify randomized controlled trials evaluating the use of conventional systemic NSAIDs as pain management for children in the perioperative or emergency department

(traumatic injury) setting. Trials of cyclooxygenase-2 inhibitors ("coxibs") were excluded. Search results included studies of ibuprofen (n = 12), ketoprofen (n = 5), ketorolac (n = 6), and diclofenac (n = 4). NSAIDs reduced the opioid requirement in 10 of 13 studies in which this outcome was measured. NSAID use did not compromise pain relief; NSAIDs provided improved or similar pain scores compared with opioids (or other control) in 24 of 27 studies. Adverse event frequencies were reported in 26 studies; adverse event frequencies with NSAIDs were lower than with opioids (or other control) in three of 26 studies, similar in 21 of 26 studies, and more frequent in two of 26 studies. Perioperative and emergency department use of NSAIDs may reduce opioid requirements while maintaining pain control, with similar or reduced frequencies of opioid-associated adverse events.

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43.

Cerebrospinal fluid leakage after cranial surgery in the pediatric population-a systematic review and meta-analysis.
Slot E.M.H., van Baarsen K.M., Hoving E.W., Zuithoff N.P.A., van Doormaal T.P.C.
Embase
Child's Nervous System. 37(5) (pp 1439-1447), 2021. Date of Publication: May 2021.
[Review]
AN: 2010373710
Background: Cerebrospinal fluid (CSF) leakage is a common complication after neurosurgical intervention. It is associated with substantial morbidity and increased healthcare costs. The current systematic review and meta-analysis aim to quantify the incidence of cerebrospinal fluid leakage in the pediatric population and identify its risk factors.
Method(s): The authors followed the PRISMA guidelines. The Embase, PubMed, and Cochrane database were searched for studies reporting CSF leakage after intradural cranial surgery in patients up to 18 years old. Meta-analysis of incidences was performed using a generalized linear mixed model.
Result(s): Twenty-six articles were included in this systematic review. Data were retrieved of 2929 patients who underwent a total of 3034 intradural cranial surgeries. Surprisingly, only four of the included articles reported their definition of CSF leakage. The overall CSF leakage rate was 4.4% (95% CI 2.6 to 7.3%). The odds of CSF leakage were significantly greater for craniectomy as opposed to craniotomy (OR 4.7, 95% CI 1.7 to 13.4) and infratentorial as opposed to supratentorial surgery (OR 5.9, 95% CI 1.7 to 20.6). The odds of CSF leakage were significantly lower for duraplasty use versus no duraplasty (OR 0.41 95% CI 0.2 to 0.9).
Conclusion(s): The overall CSF leakage rate after intradural cranial surgery in the pediatric population is 4.4%. Risk factors are craniectomy and infratentorial surgery. Duraplasty use is

negatively associated with CSF leak. We suggest defining a CSF leak as "leakage of CSF through the skin," as an unambiguous definition is fundamental for future research.

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Publisher
Springer Science and Business Media Deutschland GmbH
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2021

44.

Guidelines for Opioid Prescribing in Children and Adolescents after Surgery: An Expert Panel Opinion.
Kelley-Quon L.I., Kirkpatrick M.G., Ricca R.L., Baird R., Harbaugh C.M., Brady A., Garrett P., Wills H., Argo J., Diefenbach K.A., Henry M.C.W., Sola J.E., Mahdi E.M., Goldin A.B., St Peter S.D., Downard C.D., Azarow K.S., Shields T., Kim E.
Embase
JAMA Surgery. 156(1) (pp 76-90), 2021. Date of Publication: January 2021.
[Review]
AN: 633482038
Importance: Opioids are frequently prescribed to children and adolescents after surgery. Prescription opioid misuse is associated with high-risk behavior in youth. Evidence-based guidelines for opioid prescribing practices in children are lacking.
Objective(s): To assemble a multidisciplinary team of health care experts and leaders in opioid stewardship, review current literature regarding opioid use and risks unique to pediatric populations, and develop a broad framework for evidence-based opioid prescribing guidelines for children who require surgery. Evidence Review: Reviews of relevant literature were performed including all English-language articles published from January 1, 1988, to February 28, 2019, found via searches of the PubMed (MEDLINE), CINAHL, Embase, and Cochrane databases. Pediatric was defined as children younger than 18 years. Animal and experimental studies, case reports, review articles, and editorials were excluded. Selected articles were graded using tools from the Oxford Centre for Evidence-based Medicine 2011 levels of evidence. The Appraisal of Guidelines for Research & Evaluation (AGREE) II instrument was applied throughout guideline creation. Consensus was determined using a modified Delphi technique.
Finding(s): Overall, 14574 articles were screened for inclusion, with 217 unique articles included for qualitative synthesis. Twenty guideline statements were generated from a 2-day in-person meeting and subsequently reviewed, edited, and endorsed externally by pediatric surgical specialists, the American Pediatric Surgery Association Board of Governors, the American Academy of Pediatrics Section on Surgery Executive Committee, and the American College of

Surgeons Board of Regents. Review of the literature and guideline statements underscored 3 primary themes: (1) health care professionals caring for children who require surgery must recognize the risks of opioid misuse associated with prescription opioids, (2) nonopioid analgesic use should be optimized in the perioperative period, and (3) patient and family education regarding perioperative pain management and safe opioid use practices must occur both before and after surgery.
Conclusions and Relevance: These are the first opioid-prescribing guidelines to address the unique needs of children who require surgery. Health care professionals caring for children and adolescents in the perioperative period should optimize pain management and minimize risks associated with opioid use by engaging patients and families in opioid stewardship efforts.

PMID
33175130 [https://www.ncbi.nlm.nih.gov/pubmed/?term=33175130]
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Publisher
American Medical Association
Year of Publication
2021

45.

Postoperative Maladaptive Behavior, Preoperative Anxiety and Emergence Delirium in Children Undergone General Anesthesia: A Narrative Review.
Zainal Abidin H., Omar S.C., Mazlan M.Z., Hassan M.H., Isa R., Ali S., Hassan S.K., Marzuki A.
Embase
Global Pediatric Health. 8 (no pagination), 2021. Date of Publication: 2021.
[Review]
AN: 2011127303
Over the years, the number of pediatric patients undergoing surgeries are increasing steadily. The types of surgery vary between elective to emergency with involvement of multidisciplinary teams. The development of day care surgery unit is expanding where the patients will only come to the hospital on the day of surgery and discharge home after such as satisfactory parameters achieved, minimal to no pain, minimal to no bleeding from surgical site and able to tolerate fluids. Hospitalization and surgery could contribute to significant psychological disturbance to the children. These issues are not being addressed as children have difficulty in conveying their problems and fear. They do however express it through negative behavioral changes.

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Publisher
SAGE Publications Inc.
Year of Publication
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46.

Satisfaction measures in pediatric anesthesia and perioperative care.
Chua G.C.C., Cyna A.M.
Embase
Paediatric Anaesthesia. 31(7) (pp 746-754), 2021. Date of Publication: July 2021.
[Review]
AN: 2011513917
Patient satisfaction is routinely used to assess the quality of care in medicine. In the field of anesthesia, research has been primarily directed toward developing satisfaction measures in adults with little attention paid to the pediatric population. Satisfaction in pediatric anesthesia and perioperative care is poorly understood. We have identified existing satisfaction measures in pediatric perioperative care and examined their similarities and differences. A search of relevant published trials up to January 2021 identified 17 studies using 14 unique satisfaction measures of perioperative care in children. Eleven of these assessed satisfaction multidimensionally while three assessed overall satisfaction of parents with their child's anesthesia. Of the six dimensions of satisfaction identified, all were duplicated to some degree across studies. The dimensions

were: "staff rapport and communication" and "anesthetic and nursing quality of care" in eight satisfaction measures; "information giving" in seven measures; "postoperative symptom control" in six; "hospital experience" in five; and "involvement in decision-making" in three. The most important items from the parents' perspective were: "staff rapport and communication;" "information giving;" and "decision-making". No study examined all dimensions of satisfaction. Although all studies questioned parents, only three asked satisfaction questions of the child. No study was analyzed the child's direct responses. In three studies, parental involvement in decision-making was reported to be important as a satisfaction measure of their child's perioperative care. Of the few existing satisfaction measures evaluated, there is no accepted standard in current practice. Future studies identifying the important determinants of satisfaction in pediatric perioperative care, perhaps also using a Delphi approach with parents, might allow for the development of a patient-focused standardized measure in this setting.

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Publisher
Blackwell Publishing Ltd
Year of Publication
2021

47.

Best practice & research clinical anesthesiology: Safety and quality in perioperative anesthesia care. Update on safety in pediatric anesthesia.
de Graaff J.C., Johansen M.F., Hensgens M., Engelhardt T.
Embase
Best Practice and Research: Clinical Anaesthesiology. 35(1) (pp 27-39), 2021. Date of Publication: May 2021.
[Review]
AN: 2010522232
Pediatric anesthesia is large part of anesthesia clinical practice. Children, parents and anesthesiologists fear anesthesia because of the risk of acute morbidity and mortality. Modern anesthesia in otherwise healthy children above 1 year of age in developed countries has become very safe due to recent advance in pharmacology, intensive education, and training as well as centralization of care. In contrast, anesthesia in these children in low-income countries is associated with a high risk of mortality due to lack of basic resources and adequate training of health care providers. Anesthesia for neonates and toddlers is associated with significant morbidity and mortality. Anesthesia-related (near) critical incidents occur in 5% of anesthetic procedures and are largely dependent on the skills and up-to-date knowledge of the whole perioperative team in the specific needs for children. An investment in continuous medical education of the perioperative staff is required and international standard operating protocols for common procedures and critical situations should be defined.

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Year of Publication
2021

48.

Postoperative Pain Management in Pediatric Spinal Fusion Surgery for Idiopathic Scoliosis. [Review]
Lee CS, Merchant S, Chidambaran V
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Paediatric Drugs. 22(6):575-601, 2020 Dec.
[Journal Article. Review]
UI: 33094437
This article reviews and summarizes current evidence and knowledge gaps regarding postoperative analgesia after pediatric posterior spine fusion for adolescent idiopathic scoliosis, a common procedure that results in severe acute postoperative pain. Inadequate analgesia may delay recovery, cause patient dissatisfaction, and increase chronic pain risk. Despite significant adverse effects, opioids are the analgesic mainstay after scoliosis surgery. However, growing emphasis on opioid minimization and enhanced recovery has increased adoption of multimodal analgesia (MMA) regimens. While opioid adverse effects remain a concern, MMA protocols must also consider risks and benefits of adjunct medications. We discuss use of opioids via different administration routes and elaborate on the effect of MMA components on opioid/pain and recovery outcomes including upcoming regional analgesia. We also discuss risk for prolonged opioid use after surgery and chronic post-surgical pain risk in this population. Evidence supports use of neuraxial opioids at safe doses, low-dose ketorolac, and methadone for postoperative analgesia. There may be a role for low-dose ketamine in those who are opioid-tolerant or have chronic pain, but the evidence for preoperative gabapentinoids and intravenous lidocaine is currently insufficient. There is a need for further studies to evaluate pediatric-specific optimal MMA dosing regimens after scoliosis surgery. Questions remain regarding how best to prevent acute opioid tolerance, opioid-induced hyperalgesia, and chronic postsurgical pain. We anticipate that this timely update will enable clinicians to develop efficient pain regimens and provide impetus for future research to optimize recovery outcomes after spine fusion.
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1
Status
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Year of Publication
2020

49.

Perioperative Management of Pediatric Patients With Type 1 Diabetes Mellitus, Updated Recommendations for Anesthesiologists. [Review]
Martin LD, Hoagland MA, Rhodes ET, Wolfsdorf JI, Hamrick JL
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Anesthesia & Analgesia. 130(4):821-827, 2020 04.
[Guideline. Journal Article. Review]
UI: 31688079
Approximately 1 of every 300 children in the United States has type 1 diabetes mellitus (T1D), and these patients may require anesthetics for a variety of procedures. Perioperative coordination is complex, and attention to perioperative fasting, appropriate insulin administration, and management of hypo- and hyperglycemia, as well as other metabolic abnormalities, is required. Management decisions may be impacted by the patient's baseline glycemic control and home insulin regimen, the type of procedure being performed, and expected postoperative recovery. If possible, preoperative planning with input from the patient's endocrinologist is considered best practice. A multi-institutional working group was formed by the Society for Pediatric Anesthesia Quality and Safety Committee to review current guidelines in the endocrinology and anesthesia literature and provide recommendations to anesthesiologists caring for pediatric patients with T1D in the perioperative setting. Recommendations for preoperative evaluation, glucose monitoring, insulin administration, fluid management, and postoperative management are discussed, with particular attention to increasingly prevalent insulin pumps and continuous glucose monitoring (CGM).
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1
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MEDLINE
Clinical Trial Number
Society for Pediatric Anesthesia Quality and Safety Committee Diabetes Workgroup, Society for Pediatric Anesthesia Diabetes Workgroup members
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Hamrick, Jennifer L. Department of Anesthesiology, Rady Children's Hospital, San Diego, California.
Year of Publication
2020

50.

Pain assessment and management in children in the postoperative period: A review of the most commonly used postoperative pain assessment tools, new diagnostic methods and the latest guidelines for postoperative pain therapy in children.
Zielinski J., Morawska-Kochman M., Zatonski T.
Embase
Advances in Clinical and Experimental Medicine. 29(3) (pp 365-374), 2020. Date of Publication: March 2020.
[Review]
AN: 2005729351
Pain is one of the most common complaints expressed by hospital patients and is the main reason they seek medical help. Pain is always subjective, so its severity should be assessed individually for each patient. The main issue with pain management in children is the difficulty involved in evaluating it. Numerous studies have developed tools that would allow for an accurate assessment of the intensity of pain in children in the postoperative period. Adequate postoperative pain assessment in pediatric patients may significantly improve their comfort and quality of life. Postoperative pain prolongs recovery and hospitalization; therefore, the severity of the pain should be part of a routine assessment. Whichever tool is applied to measure pain, it should take into account the child's age, language, ethnicity, and cognitive ability. There is no one universal method for pain assessment which is appropriate for every pediatric patient. This article provides a review of the available subjective methods of postoperative pain assessment, including new objective diagnostic methods and the latest guidelines for postoperative pain therapy in a group of pediatric patients.

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32129952 [https://www.ncbi.nlm.nih.gov/pubmed/?term=32129952]
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Publisher
Wroclaw University of Medicine
Year of Publication
2020

51.

Enhanced recovery after pediatric scoliosis surgery: Key components and current practice.
Song B.M., Kadhim M., Shanmugam J.P., King A.G., Heffernan M.J.
Embase
Orthopedics. 43(5) (pp E338-E344), 2020. Date of Publication: August 2020.

[Review]
AN: 2007987822
With the goal of safety and efficiency in health care delivery, enhanced recovery protocols (ERPs) continue to gain traction throughout various surgical disciplines, including in pediatric scoliosis surgery. The growing body of literature reporting decreased length of stay and cost with no change in readmissions or complications has brought these protocols to the forefront. The key components of ERPs include preoperative patient counseling, perioperative pain management, and early patient mobilization. In this review, the authors aim to describe the foundational history and major components of ERPs following pediatric spine deformity surgery.

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32745223 [https://www.ncbi.nlm.nih.gov/pubmed/?term=32745223]
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Publisher
Slack Incorporated
Year of Publication
2020

52.

Pediatric obstructive sleep apnea revisited: Perioperative considerations for the pediatric Anesthesiologist.
Chandrakantan A., Mehta D., Adler A.C.
Embase
International Journal of Pediatric Otorhinolaryngology. 139 (no pagination), 2020. Article Number: 110420. Date of Publication: December 2020.
[Review]
AN: 2007993580
Pediatric obstructive sleep apnea presents in up to 7% of children and represents a constellation from nasal turbulence to cessation in gas exchange. There are numerous end organ sequelae including neurocognitive morbidity associated with persistent OSA. Adenotonsillectomy (AT), the first line therapy for pediatric OSA, has not been demonstrated to reduce all end organ morbidity, specifically neurological and behavioral morbidity. Furthermore, certain at-risk populations are at higher risk from neurocognitive morbidity. Precise knowledge and perioperative planning is required to ensure optimal evidence-based practices in children with OSA. This comprehensive review covers the seminal perioperative implications of OSA, including preoperative polysomnography, pharmacotherapeutics, and postoperative risk stratification.

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33035805 [https://www.ncbi.nlm.nih.gov/pubmed/?term=33035805]
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Publisher
Elsevier Ireland Ltd
Year of Publication
2020

53.

Respiratory and hemodynamic perioperative adverse events in intravenous versus inhalational induction in pediatric anesthesia: A systematic review and meta-analysis.
Porter L.L., Blaauwendraad S.M., Pieters B.M.
Embase
Paediatric Anaesthesia. 30(8) (pp 859-866), 2020. Date of Publication: 01 Aug 2020.
[Review]
AN: 2005154341
Perioperative respiratory and hemodynamic adverse events are still a cause of morbidity and mortality in pediatric anesthesia. It has been suggested that volatile agents might be associated with more respiratory adverse events compared to intravenous agents (eg, propofol), which have been associated with a higher risk of bradycardia compared to volatile agents. We performed a systematic review and meta-analysis to evaluate the risk of perioperative hemodynamic and respiratory adverse events, comparing intravenous induction with inhalational induction in pediatric anesthesia. We searched PubMed, Embase, and Medline up to February 12, 2020. Randomized controlled trials were included. A quality assessment was carried out using a modified version of the "Cochrane Risk of Bias Tool for Randomized Controlled Trials." Of the 1602 applicable publications, four were included in the final review. Two studies found no significant differences in perioperative respiratory or hemodynamic adverse events. Two studies found a higher risk of respiratory perioperative adverse events in inhalation versus intravenous induction, with a relative risk varying from 1.64 to 3.83. Data were heterogenous, and pooled estimates may not be reliable. The present systematic review and meta-analysis revealed no significant difference in the occurrence of perioperative respiratory adverse events between inhalation and intravenous induction. More respiratory adverse events during and after inhalation induction were found, in particular in children with multiple risk factors for respiratory adverse events. This did not reach significance. Future research should include a large randomized controlled trial comparing inhalation and intravenous induction with respiratory and hemodynamic adverse events as primary outcome and adequately blinded outcome assessors.

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Publisher
Blackwell Publishing Ltd (E-mail: info@royensoc.co.uk)
Year of Publication
2020

54.

Perioperative care of pediatric anesthesia for children with suspected or confirmed COVID-19.
Al Juhani T., Al Zughaibi N., Haroun A., Al Saad A.
Embase
Saudi Journal of Anaesthesia. 14(3) (pp 370-377), 2020. Date of Publication: July-September 2020.
[Review]
AN: 631957715
COVID-19 is a pandemic disease that recently been spreading all over the globe. Health-care bodies recognize that organized and written protocols are essential tools to help in fighting this highly contagious virus. In this review, we published our protocol and recommendations in the pediatric anesthesia department in our hospital in preparation for the management of children who are confirmed or suspected in perioperative periods.

Status
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Wolters Kluwer Medknow Publications (B9, Kanara Business Centre, off Link Road, Ghatkopar (E), Mumbai 400 075, India)
Year of Publication
2020

55.

Postoperative pain control following minimally invasive correction of pectus excavatum in pediatric patients: A systematic review.
Archer V., Robinson T., Kattail D., Fitzgerald P., Walton J.M.
Embase
Journal of Pediatric Surgery. 55(5) (pp 805-810), 2020. Date of Publication: May 2020.
[Article]
AN: 2004961920
Purpose: Surgery for pectus excavatum is associated with significant postoperative pain. The aim of this study was to summarize the current literature regarding postoperative pain control for pediatric patients undergoing minimally invasive repair of pectus excavatum (MIRPE).
Method(s): A systematic search of Medline, Embase, PubMed, CINAHL, Web of Science, and the Cochrane Library for randomized controlled trials (RCT) comparing methods of pain control in pediatric patients undergoing MIRPE was conducted. Studies were restricted to the English language.
Result(s): After screening 1304 references, 9 randomized control trials (RCTs) enrolling 485 patients were included. The average age was 11.9 years (+/- 3.1). Pain scores were decreased with ropivacaine compared to bupivacaine-based epidurals. In studies comparing ketamine to opioid based patient-controlled anesthesia (PCA) pumps, the results were variable. Intercostal and paravertebral nerve blocks had decreased pain scores in 75% of the studies compared to opioid-based PCA. Opioid consumption was decreased in 50% of the trials assessing ketamine-based infusions and 75% of the studies comparing intercostal and paravertebral nerve blocks.

Nausea was decreased in several of the ketamine-based infusion and intercostal and paravertebral nerve block studies.
Conclusion(s): Ketamine-including infusions or paravertebral and intercostal nerve blocks may represent superior methods of postoperative pain control for MIRPE. Further work is needed to confirm results.
Level of Evidence: 2A [1].

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Publisher
W.B. Saunders
Year of Publication
2020

56.

Pediatric perioperative outcomes: Protocol for a systematic literature review and identification of a core outcome set for infants, children, and young people requiring anesthesia and surgery.
Razavi C., Walker S.M., Moonesinghe S.R., Stricker P.A.
Embase
Paediatric Anaesthesia. 30(4) (pp 392-400), 2020. Date of Publication: 01 Apr 2020.
[Article]
AN: 2004277767
Clinical outcomes are measurable changes in health, function, or quality of life that are important for evaluating the quality of care and comparing the efficacy of interventions. However, clinical outcomes and related measurement tools need to be well-defined, relevant, and valid. In adults, Core Outcome Measures in Effectiveness Trials (COMET) methodology has been used to develop core outcome sets for perioperative care. Systematic literature reviews identified standardized endpoints (StEP) and valid measurement tools, and consensus across a broader range of relevant stakeholders was achieved via a Delphi process to establish Core Outcome Measures in Perioperative and Anaesthetic Care (COMPAC). Core outcome sets for pediatric perioperative care cannot be directly extrapolated from adult data. The type and weighting of endpoints within particular domains can be influenced by age-dependent differences in the indications for and/or nature of surgery and medical comorbidities, and the validity and utility of many measurement tools vary significantly with developmental stage and age. The involvement of parents/carers is essential as they frequently act as surrogate responders for preverbal and developmentally delayed children, parental response may influence child outcome, and parental and/or child ranking of outcomes may differ from those of health professionals. Here, we describe the formation of the international Pediatric Perioperative Outcomes Group, which aims to identify and create validated, broadly applicable, patient-centered outcome measures for infants, children, and young people. Methodologies parallel that of the StEP and COMPAC projects, and systematic literature searches have been performed within agreed age-dependent

subpopulations to identify reported outcomes and measurement tools. This represents the first steps for developing core outcome sets for pediatric perioperative care.

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Publisher
Blackwell Publishing Ltd
Year of Publication
2020

57.

Determine the efficacy of antibiotic prophylaxis and specific antibiotic regimens in dental implant placement for the prevention of postoperative infection (POI) in children: A systematic review and meta-analysis.
Khosravi B.A., Gravand E., Sadegholvad M., Mirza M.
Embase
International Journal of Pharmaceutical Research. 12(3) (pp 631-637), 2020. Date of Publication: July-September 2020.
[Article]
AN: 2004196852
Background and aim: Conflicting proposals on antibiotic prophylaxis in dental implant placement reveal the require for investigation of current writing on the subject and re-evaluation of related dangers and benefits. So, the aim of this systematic review and meta-analysis was determine the efficacy of antibiotic prophylaxis and specific antibiotic regimens in dental implant placement for prevention of POI in children and adults.
Method(s): MEDLINE, PubMed, Cochrane Library, Embase, ISI, google scholar were used as electronic databases to perform a systematic literature between 2015 to 2019. A commercially available software program (Endnote X9) was used for electronic title management. Searches were performed with keywords, "antibiotic", "prophylaxis"," antibiotic regimens"," dental implant", "implant" "post-operative infection OR POI", "children", "pediatric dentistry", "adults"," healthy patients". The present systematic review was performed based on the main consideration of PRISMA Statement-Preferred Reporting Items for Systematic Reviews and Meta-analysis Result: All antibiotic regimens group (RR 2.87, 95% CI 0.16 to 52.74), pre-operative only antibiotic group

(RR 4.82, 95% CI 0.24 to 98.89), pre- and post-operative antibiotic group (RR 4.55, 95% CI 0.22 to 93.38).
Conclusion(s): Antibiotic prophylaxis may not be shown for the anticipation of POIs following dental implant placement in generally healthy patients.

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Publisher
Advanced Scientific Research
Year of Publication
2020

58.

Enhanced recovery after surgery in pediatric orthopedics (ERAS-PO).
Garin C.
Embase
Orthopaedics and Traumatology: Surgery and Research. 106(1 Supplement) (pp S101-S107), 2020. Date of Publication: February 2020.
[Review]
AN: 2002868876
"Enhanced recovery after surgery" is now the official term: ERAS. Patients come to a specialized center for surgery, and early recovery is ensured by minimizing the impact of surgical stress, controlling pain and stimulating autonomy. Patient information and education concerning the process and care organization enable short hospital stay with early discharge. The expected benefits are fewer postoperative complications and shorter hospital stay. There is nothing to prevent this kind of program being implanted for children, so long as age and the parent-child relationship are taken into account. Lessons should be drawn from existing pediatric therapeutic education programs, to adapt information and training to the child's cognitive, motor and psycho-affective development. Setting up an ERAS program is the result firstly of medical and surgical reflection. All healthcare actors need to be actively involved, to set up a management program for the parent-child duo. Implementation, monitoring and assessment are the responsibilities of the physicians who initiate the program. Fewer postoperative complications, with earlier discharge and rehabilitation, should reduce costs and improve patient management in hospital. Such is, indeed, usually the case, but unfortunately drastic health expenditure curbs greatly attenuate the expected benefit in terms of care organization and cost savings.

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Elsevier Masson SAS (62 rue Camille Desmoulins, Issy les Moulineaux Cedex 92442, France)
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59.

Nonopioid analgesics for perioperative and cardiac surgery pain in children: Current evidence and knowledge gaps.
Saini A., Maher K., Deshpande S.
Embase
Annals of Pediatric Cardiology. 13(1) (pp 46-55), 2020. Date of Publication: January-March 2020. [Review]
AN: 630679103
Objective: The purpose of this review is to present the available literature on the use of nonopioid analgesics such as nonsteroidal anti-inflammatory drugs in postcardiac surgery pediatric patients, mainly to focus on patients <1 year of age, and to provide the foundation for future research.
Material(s) and Method(s): Published studies that address the use on nonopioid medications for postoperative sedation and analgesia in infants and children undergoing cardiac surgery were identified from online sources. Studies were reviewed by two authors independently to assess the quality of the data as well as the evidence. Due to limited availability of such studies, the review was then expanded to include use in noncardiac procedures as well as to expanded age groups. All studies that met the primary objective were included. Results/Data Synthesis: Majority of the studies in the population of interest were related to use of ketorolac. Five studies specifically addressed ketorolac use in cardiac patients. In addition, studies were reviewed for nonopioid analgesia in noncardiac patients and included as a part of the available evidence as in the case of acetaminophen use. Newer agents as well as agents with very limited information were also acknowledged.
Conclusion(s): Nonopioid medications appear to show promise for analgesia in infants undergoing cardiac surgery, with ketorolac being the most potent agent as a potential substitute for opioids. These agents demonstrate a reasonable safety profile even in the very young. There continue to be significant gaps in knowledge before their adoption becomes routine. However, gives the awareness regarding short-term and long-term impact of opioid use in this vulnerable population, and studies of such agents are an urgent need.

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Publisher
Wolters Kluwer Medknow Publications (B9, Kanara Business Centre, off Link Road, Ghatkopar (E), Mumbai 400 075, India)
Year of Publication
2020

60.

Point-of-care ultrasound in pediatric anesthesia: perioperative considerations.
Adler A.C., Matisoff A.J., DiNardo J.A., Miller-Hance W.C.
Embase
Current opinion in anaesthesiology. 33(3) (pp 343-353), 2020. Date of Publication: 01 Jun 2020.
[Review]
AN: 631622159
PURPOSE OF REVIEW: To review the perioperative applications of point-of-care ultrasound (POCUS). RECENT FINDINGS: The role of point-of-care ultrasonography for perioperative care is expanding with respect to perioperative application. The imaging approach can complement the physical exam and provide additional information for decision-making in pediatric perioperative medicine. This review will focus on applications in the following organ systems: airway, cardiac, pulmonary and gastric. Specifically, POCUS of the airway has been used to optimize endotracheal tube depth, aid in tube size selection and predict difficulty with laryngoscopy and intubation. Lung POCUS has been used to assess for causes hypoxemia as well as to optimize ventilatory mechanics. Cardiac POCUS has been used for assessment of hemodynamics, valvular and ventricular function. Gastric ultrasound has emerged as an evaluative mechanism of gastric content in the setting of fasting as well as to confirm placement of gastric tubes. The applications of POCUS in the perioperative setting continue to evolve as a reliable diagnostic tool that can assist in timely diagnosis, improve procedural safety and has the potential to improve patient outcomes. SUMMARY: The utility of perioperative POCUS has been well demonstrated, specifically for examination of the airway, stomach and cardiopulmonary system. It is advisable for the novice sonographer to perform POCUS within the guidelines set by the American Society of Echocardiography regarding basic POCUS. As with all diagnostic modalities, understanding the limitations of ultrasound and POCUS as well as continuous self-assessment is crucial.
PMID
32324662 [https://www.ncbi.nlm.nih.gov/pubmed/?term=32324662]
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Publisher
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Year of Publication
2020

61.

Current Evidence for Acute Pain Management of Musculoskeletal Injuries and Postoperative Pain in Pediatric and Adolescent Athletes. [Review]
Liu DV, Lin YC

OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Clinical Journal of Sport Medicine. 29(5):430-438, 2019 09.
[Journal Article. Review]
UI: 31460958
OBJECTIVE: Sports-related injuries in young athletes are increasingly prevalent with an estimated 2.6 million children and adolescents sustaining a sports-related injury annually. Acute sports-related injuries and surgical correction of sports-related injuries cause physical pain and psychological burdens on pediatric athletes and their families. This article aims to evaluate current acute pain management options in pediatric athletes and acute pain management strategies for postoperative pain after sports-related injuries. This article will also elucidate which areas of pain management for pediatric athletes are lacking evidence and help direct future clinical trials.
DATA SOURCES: We conducted a literature search through PubMed and the Cochrane Central Register of Controlled Trials to provide an extensive review of initial and postoperative pain management strategies for pediatric sports-related musculoskeletal injuries.
MAIN RESULTS: The current knowledge of acute pain management for initial sports-related injuries, postoperative pain management for orthopedic surgeries, as well as complementary and alternative medical therapies in pediatric sports-related injuries is presented. Studies evaluating conservative management, enteral and nonenteral medications, regional anesthesia, and complementary medical therapies are included.
CONCLUSIONS: Adequate pain management is important for sports injuries in children and adolescents for emotional as well as physical healing, but a balance must be achieved to provide acceptable pain relief while minimizing opioid use and side effects from analgesic medications. More studies are needed to evaluate the efficacy of nonopioid analgesic medications and complementary therapies in pediatric patients with acute sports-related injuries.
Version ID
1
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Lin, Yuan-Chi. Department of Anaesthesia, Harvard Medical School, Boston, Massachusetts.
Year of Publication
2019

62.

Outcome domains and pain outcome measures in randomized controlled trials of interventions for postoperative pain in children and adolescents.
Boric K, Jelicic Kadic A, Boric M, Zarandi-Nowroozi M, Jakus D, Cavar M, Dosenovic S, Jeric M, Batinic M, Vukovic I, Puljak L
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
European Journal of Pain. 23(2):389-396, 2019 02.
[Journal Article. Systematic Review]

UI: 30179284
BACKGROUND: We analysed outcome domains and pain outcome measures in randomized controlled trials of interventions for postoperative pain management in children and adolescents and compared them to the core outcome set recommended by the Pediatric Initiative on Methods, Measurement and Pain Assessment in Clinical Trials (PedIMMPACT).
METHODS: Systematic literature search was conducted in MEDLINE, CDSR, DARE, CINAHL and PsycINFO up to 31 January 2017. One author extracted data and second verified the extraction. Outcome domains and pain outcome measures were analysed and compared with the PedIMMPACT core outcome set.
RESULTS: We included 337 trials. Median number of reported outcomes was five (range 1-11) for the included trials and two (range 0-6) for PedIMMPACT. The most commonly analysed PedIMMPACT outcome domains were pain intensity (93%) and "symptoms and adverse events" (83%). The remaining four PedIMMPACT outcomes were present in under 30% of included randomized controlled trials. Proportion of PedIMMPACT outcome domains did not change after the PedIMMPACT was published in 2008. Of the 312 trials that reported pain intensity, 303 (97%) also specified pain assessment tools, in which the most common was the visual analogue scale (24%) followed by the Children's Hospital of Eastern Ontario Pain Scale (18%).
CONCLUSION: Analysed trials about interventions for pediatric postoperative pain insufficiently used the recommended core outcome set for acute pain in children. Relevance of the PedIMMPACT core outcome set, as well as the reasons behind its limited uptake, need to be further evaluated.
SIGNIFICANCE: Recommended core outcomes have been insufficiently used in randomized controlled trials about postoperative pain in children, which hinders comparability of studies and makes synthesis of evidence difficult.

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1
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Year of Publication
2019

63.

Impact of Anesthetics, Analgesics, and Perioperative Blood Transfusion in Pediatric Cancer Patients: A Comprehensive Review of the Literature.
Cata J.P., Owusu-Agyemang P., Kapoor R., Lonnqvist P.-A.
Embase
Anesthesia and Analgesia. 129(6) (pp 1653-1665), 2019. Date of Publication: 01 Dec 2019.
[Article]
AN: 630993366
Cancer is the leading cause of death by disease in developed countries. Children and adolescents with cancer need surgical interventions (ie, biopsy or major surgery) to diagnose, treat, or palliate their malignancies. Surgery is a period of high vulnerability because it stimulates the release of inflammatory mediators, catecholamines, and angiogenesis activators, which coincides with a period of immunosuppression. Thus, during and after surgery, dormant tumors or micrometastasis (ie, minimal residual disease) can grow and become clinically relevant metastasis. Anesthetics (ie, volatile agents, dexmedetomidine, and ketamine) and analgesics (ie, opioids) may also contribute to the growth of minimal residual disease or disease progression. For instance, volatile anesthetics have been implicated in immunosuppression and direct stimulation of cancer cell survival and proliferation. Contrarily, propofol has shown in vitro anticancer effects. In addition, perioperative blood transfusions are not uncommon in children undergoing cancer surgery. In adults, an association between perioperative blood transfusions and cancer progression has been described for some malignancies. Transfusion-related immunomodulation is one of the mechanisms by which blood transfusions can promote cancer progression. Other mechanisms include inflammation and the infusion of growth factors. In the present review, we discuss different aspects of tumorigenesis, metastasis, angiogenesis, the immune system, and the current studies about the impact of anesthetics, analgesics, and perioperative blood transfusions on pediatric cancer progression.

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31743187 [https://www.ncbi.nlm.nih.gov/pubmed/?term=31743187]
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Publisher
Lippincott Williams and Wilkins
Year of Publication
2019

64.

Pediatric postoperative opioid prescribing and the opioid crisis.
Harbaugh C.M., Gadepalli S.K.
Embase
Current opinion in pediatrics. 31(3) (pp 378-385), 2019. Date of Publication: 01 Jun 2019.
[Review]

AN: 627861808
PURPOSE OF REVIEW: The purpose of this review is to explore the effects of the opioid crisis on pediatric patients in the postoperative setting and provide recommendations for well-tolerated opioid prescribing practices. RECENT FINDINGS: Opioid overdoses have increased among all age groups, predominantly related to overprescribing and accessibility of opioids in the home. Adverse risks of prescribed opioids include respiratory depression, gastrointestinal distress, accidental ingestion, intentional misuse, new chronic use, diversion to another user, and overdose. Well-tolerated opioid prescribing practices include multimodal pain management; prescribing guided by patient need; risk assessment for potential misuse; and comprehensive patient and family education on risks, safe storage, and disposal practices. Evolving state laws will affect varying institutional policies; thus, providers must ensure their prescribing practices are current and compliant. SUMMARY: All age groups have been affected by the opioid crisis, including children and adolescents. When managing postoperative pain, clinicians must balance appropriate pain management with well-tolerated opioid stewardship to minimize harm related to postoperative care.
PMID
31090580 [https://www.ncbi.nlm.nih.gov/pubmed/?term=31090580]
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NLM (Medline)
Year of Publication
2019

65.

Effects and cost-effectiveness of postoperative oral analgesics for additional postoperative pain relief in children and adolescents undergoing dental treatment: Health technology assessment including a systematic review.
Berlin H., Vall M., Bergenas E., Ridell K., Brogardh-Roth S., Lager E., List T., Davidson T., Klingberg G.
Embase
PLoS ONE. 14(12) (no pagination), 2019. Article Number: e0227027. Date of Publication: 01 Dec 2019.
[Article]
AN: 2004475312
Background There is an uncertainty regarding how to optimally prevent and/or reduce pain after dental treatment on children and adolescents. Aim To conduct a systematic review (SR) and health technology assessment (HTA) of oral analgesics administered after dental treatment to prevent postoperative pain in children and adolescents aged 3-19 years. Design A PICO-protocol was constructed and registered in PROSPERO (CRD42017075589). Searches were conducted in PubMed, Cochrane, Scopus, Cinahl, and EMBASE, November 2018. The researchers (reading in pairs) assessed identified studies independently, according to the defined inclusion and exclusion criteria, following the PRISMA-statement. Results 3,963 scientific papers were identified, whereof 216 read in full text. None met the inclusion criteria, leading to an empty SR. Ethical issues were identified related to the recognized knowledge gap in terms of challenges to conduct studies that are well-designed from methodological as well as ethical perspectives. Conclusions There is no scientific support for the use or rejection of oral analgesics administered after dental treatment in order to prevent or reduce postoperative pain in children and adolescents. Thus, no guidelines can be formulated on this issue based solely on scientific evidence. Well-designed studies on how to prevent pain from developing after dental treatment in children and adolescents is urgently needed.

PMID
31891621 [https://www.ncbi.nlm.nih.gov/pubmed/?term=31891621]
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Publisher
Public Library of Science (E-mail: plos@plos.org)
Year of Publication
2019

66.

Perioperative fluid management in children: Can we sum it all up now.
Sumpelmann R., Becke K., Zander R., Witt L.
Embase
Current Opinion in Anaesthesiology. 32(3) (pp 384-391), 2019. Date of Publication: 2019.
[Review]
AN: 631344238
Purpose of reviewThe composition and type of intravenous fluids during paediatric anaesthesia have been subjects of debates for decades. Errors in perioperative fluid management in children may lead to serious complications and a negative outcome. Therefore, in this review, historical and recent developments and recommendations for perioperative fluid management in children are presented, based on physiology and focused on safety and efficacy.Recent findingsOptimized fasting times and liberal clear fluid intake until 1 h improve patient comfort and metabolic and haemodynamic condition after induction of anaesthesia. Physiologically composed balanced isotonic electrolyte solutions are safer than hypotonic electrolyte solutions or saline 0.9% to protect young children against the risks of hyponatraemia and hyperchloraemic acidosis. For intraoperative maintenance infusion, addition of 1-2% glucose is sufficient to avoid hypoglycaemia, lipolysis or hyperglycaemia. Modified fluid gelatine or hydroxyethyl starch in balanced electrolyte solution can safely be used to quickly normalize blood volume in case of perioperative circulatory instability and blood loss.SummaryPhysiologically composed balanced isotonic electrolyte solutions are beneficial for maintaining homeostasis, shifting the status more towards the normal range in patients with preexisting imbalances and have a wide margin of safety in case of accidental hyperinfusion.

PMID
30925513 [https://www.ncbi.nlm.nih.gov/pubmed/?term=30925513]
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Publisher
Lippincott Williams and Wilkins (E-mail: agents@lww.com)
Year of Publication
2019

67.

Perioperative Management of the Pediatric Patient on Medicinal Marijuana: What Anesthesiologists Should Know.
Flannery K.M., D'Souza G., Agarwal R.
Embase
Anesthesia and Analgesia. 129(5) (pp 1339-1343), 2019. Date of Publication: 01 Nov 2019.
[Review]
AN: 630982295
In 2018, 29 states allow the use of medicinal marijuana. In these states, minors, with parental permission, are granted access. Use has increased in some states, although there remains a paucity of clear evidence regarding usefulness and dosing. There are 2 Food and Drug Administration-approved synthetic derivatives. One purified compound was just approved by the Food and Drug Administration, and another is undergoing Food and Drug Administration review. This article will review the literature regarding the use of each of these compounds in the literature, with particular attention to data in children. The history, known pharmacology, data from nonmedicinal use, current evidence, and anesthetic considerations will be described.

PMID
30985382 [https://www.ncbi.nlm.nih.gov/pubmed/?term=30985382]
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Publisher
Lippincott Williams and Wilkins (E-mail: kathiest.clai@apta.org)
Year of Publication
2019

68.

A Systematic Review of Caudal Anesthesia and Postoperative Outcomes in Pediatric Cardiac Surgery Patients.
Maharramova M., Taylor K.
Embase
Seminars in Cardiothoracic and Vascular Anesthesia. 23(2) (pp 237-247), 2019. Date of Publication: 01 Jun 2019.

[Review]
AN: 625543899
Objectives. In pediatric cardiac surgery, does caudal anesthesia promote early extubation, reduce pain scores, reduce stress responses, and length of stay (LOS)? Design. A systematic review. Participants. Inclusion criteria included cardiac surgical procedures (with or without cardiopulmonary bypass) in any subject between the ages of full-term newborn and 18 years receiving caudal anesthesia of any medication combination. Searches were conducted with assistance of an Academic librarian from 1947 to July 2017. Methods. Relevant studies selected were randomized trials or cohort studies. Results. The total number of patients was 2159 in 17 studies. There were 8 prospective randomized clinical trials and 9 cohort studies. Caudal medications included dexmedetomidine, bupivacaine, sufentanil, morphine, fentanyl, and neostigmine. Nine studies reported earlier extubation in patients with caudal anesthesia. Cardiopulmonary bypass and surgical duration mitigated early extubation anesthetic strategies. Three of 5 studies showed reduced pain scores and need for opiates, 2 studies showed no difference. Two of 3 studies showed a reduction in stress response. Hemodynamic assessments were improved in 2 studies and unchanged in 3 studies. Four studies showed reduced hospital LOS. Studies are difficult to interpret because of the comparative techniques used. Conclusions. The data quality in this review is too poor to make recommendations regarding incorporation of caudal anesthesia into clinical practice. Caudal anesthesia may be favorable for early extubation, improved pain, and hemodynamics and reduced LOS. There are many other anesthetic alternatives to facilitate early extubation. Our review is limited by heterogeneous populations, variable pain measurement scales, and absent definitions of extubation indicators.

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30264660 [https://www.ncbi.nlm.nih.gov/pubmed/?term=30264660]
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Publisher
SAGE Publications Inc. (E-mail: claims@sagepub.com)
Year of Publication
2019

69.

Local anesthetics and regional anesthesia versus conventional analgesia for preventing persistent postoperative pain in adults and children: A Cochrane systematic review and meta-analysis update.
Levene J.L., Weinstein E.J., Cohen M.S., Andreae D.A., Chao J.Y., Johnson M., Hall C.B., Andreae M.H.
Embase
Journal of Clinical Anesthesia. 55 (pp 116-127), 2019. Date of Publication: August 2019.
[Article]
AN: 2001450179
Background: Regional anesthesia may mitigate the risk of persistent postoperative pain (PPP). This Cochrane review, published originally in 2012, was updated in 2017.
Method(s): We updated our search of Cochrane CENTRAL, PubMed, EMBASE and CINAHL to December 2017. Only RCTs investigating local anesthetics (by any route) or regional anesthesia versus any combination of systemic (opioid or non-opioid) analgesia in adults or children,

reporting any pain outcomes beyond three months were included. Data were extracted independently by at least two authors, who also appraised methodological quality with Cochrane 'Risk of bias' assessment and pooled data in surgical subgroups. We pooled studies across different follow-up intervals. As summary statistic, we reported the odds ratio (OR) with 95% confidence intervals and calculated the number needed to benefit (NNTB). We considered classical, Bayesian alternatives to our evidence synthesis. We explored heterogeneity and methodological bias.
Result(s): 40 new and seven ongoing studies, identified in this update, brought the total included RCTs to 63. We were only able to synthesize data from 39 studies enrolling 3027 participants in a balanced design. Evidence synthesis favored regional anesthesia for thoracotomy (OR 0.52 [0.32 to 0.84], moderate-quality evidence), breast cancer surgery (OR 0.43 [0.28 to 0.68], low-quality evidence), and cesarean section (OR 0.46, [0.28 to 0.78], moderate-quality evidence). Evidence synthesis favored continuous infusion of local anesthetic after breast cancer surgery (OR 0.24 [0.08 to 0.69], moderate-quality evidence), but was inconclusive after iliac crest bone graft harvesting (OR 0.20, [0.04 to 1.09], low-quality evidence).
Conclusion(s): Regional anesthesia reduces the risk of PPP. Small study size, performance, null, and attrition bias considerably weakened our conclusions. We cannot extrapolate to other interventions or to children.

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30640059 [https://www.ncbi.nlm.nih.gov/pubmed/?term=30640059]
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Publisher
Elsevier Inc. (E-mail: usjcs@elsevier.com)
Year of Publication
2019

70.

Pre-operative fasting in adults and children: clinical practice and guidelines.
Fawcett W.J., Thomas M.
Embase
Anaesthesia. 74(1) (pp 83-88), 2019. Date of Publication: January 2019.
[Review]
AN: 625313665
It is widely recognised that prolonged fasting for elective surgery in both children and adults serves no purpose, adversely affects patient well-being and can be detrimental. Although advised

fasting times for solids remain unchanged, there is good evidence to support a 1-h fast for children, with no increase in risk of pulmonary aspiration. In adults, a major focus has been the introduction of carbohydrate loading before anaesthesia, so that patients arrive for surgery not only hydrated but also in a more normal metabolic state. The latter attenuates some of the physiological responses to surgery, such as insulin resistance. As in children, there is no increase in risk of pulmonary aspiration. Further data are required to guide best practice in patients with diabetes.

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30500064 [https://www.ncbi.nlm.nih.gov/pubmed/?term=30500064]
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Publisher
Blackwell Publishing Ltd
Year of Publication
2019

71.

Antibiotics for appendicectomy in children and adolescents during the perioperative period: An integrative review.
Roque F.M.C.B., Filho A.A.M., Roque A.J.C.B., Roque H.C.B., Moreira T.M.M., Chaves E.M.C.
Embase
Revista Paulista de Pediatria. 37(4) (pp 494-502), 2019. Date of Publication: 2019.
[Article]
AN: 2003892473
Objective: To analyze the preoperative use of antibiotics in children and adolescents requiring appendectomy. Data source: Integrative review was performed in the MEDLINE, Latin American and Caribbean Health Sciences (LILACS) and Cochrane databases and the PubMed portal, with no time limit. The keywords used were: appendicitis, child, adolescent and antibacterial with Boolean AND. The articles included were published in Portuguese, English or Spanish and whose participants were under 18 years of age. Review articles and guidelines were excluded. The studies were classified according to their level of evidence and 24 papers were selected. Data Collection and Analysis: Seven randomized clinical trial studies (level of evidence II), eight cohorts (level III), seven retrospective observational studies (level V) and two historical documentary analysis (level IV) were selected. The studies addressed antibiotics used in acute appendicitis in both uncomplicated and complicated cases. Antibiotics initiated in the preoperative period showed a decrease in the rates of surgical wound infections. First-line (empiric) regimens were tested for sensitivity to microorganisms in peritoneal material cultures, however the results were controversial. Broad-spectrum antibiotics have been suggested in some studies because they have good coverage, but in others they have not been recommended because of the risk of developing bacterial resistance. Shorter administration time and earlier change to the oral route reduced hospitalization time.
Conclusion(s): There are several clinical protocols with different antibiotics. However, there is no standardization concerning the type of antibiotic drug, time of use, or route.

PMID

31291445 [https://www.ncbi.nlm.nih.gov/pubmed/?term=31291445]
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Sao Paulo Pediatric Society (Alameda Santos 211, Cerq cesar, Sao Paulo 01419-000, Brazil)
Year of Publication
2019

72.

Safety and efficacy of clonidine on postoperative vomiting and pain in pediatric ophthalmic surgery: A systematic review and meta-analysis.
Hsu Y.-P., Chu K.C.-W., Bai C.-H., Huang C.-J., Chen C., Hsu C.-W.
Embase
Paediatric Anaesthesia. 29(10) (pp 1011-1023), 2019. Date of Publication: 01 Oct 2019.
[Article]
AN: 2002475095
Background: Postoperative vomiting and pain are common, unpleasant phenomena in pediatric patients undergoing ophthalmic surgery. Clonidine has antiemetic and analgesic properties and thus may be used as premedication to reduce postoperative vomiting and pain.
Aim(s): To assess whether clonidine premedication may safely decrease postoperative vomiting and postoperative pain in pediatric patients who received an ophthalmic surgery.
Method(s): We systematically searched PubMed, EMBASE, Cochrane Library, and Scopus databases from their inception to September 2018. Randomized clinical trials comparing clonidine premedication with a placebo or an active comparator that investigated postoperative vomiting or postoperative pain in pediatric patients undergoing ophthalmic surgery were included. The primary outcome was postoperative vomiting. The secondary outcome was postoperative pain. We also evaluated the safety of clonidine premedication by tracking hemodynamic instability associated with its use.
Result(s): Ten studies with 979 patients were eligible for inclusion. Clonidine achieved a significantly lower incidence of postoperative vomiting within 6 hours postoperatively, 6-24 hours postoperatively, and at the end of the study (risk difference: -0.15; 95% confidence interval: -0.32 to -0.05; risk difference: -0.15; 95% confidence interval: -0.29 to 0.01; and risk difference: -0.23; 95% confidence interval: -0.34 to -0.12, respectively) than placebo. For the subgroup of patients who received strabismus surgery, clonidine produced a lower incidence of postoperative vomiting than placebo (risk difference: -0.19; 95% confidence interval: -0.29 to -0.05). Compared to benzodiazepine, clonidine achieved a lower incidence of postoperative vomiting at the end of the study (risk difference: -0.19; 95% confidence interval: -0.31 to -0.07); the effect was only observed in patients receiving clonidine 4 mug/kg. Furthermore, children receiving clonidine had lower postoperative pain scores, lower analgesic requirements, and more of them were pain-free compared to those who received a placebo. No patient using clonidine had any major hemodynamic instability.
Conclusion(s): Compared to placebo or benzodiazepine, clonidine premedication was effective in reducing postoperative vomiting in pediatric patients undergoing ophthalmic surgery. Clonidine premedication also provided more reduction in postoperative pain when compared to placebo. The use of clonidine premedication was not associated with adverse hemodynamic events.

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31343796 [https://www.ncbi.nlm.nih.gov/pubmed/?term=31343796]
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Embase
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Publisher
Blackwell Publishing Ltd
Year of Publication
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73.

The Rise of Value-based Care in Pediatric Surgical Patients: Perioperative Surgical Home, Enhanced Recovery After Surgery, and Coordinated Care Models.
Raman V.T.
Embase
International Anesthesiology Clinics. 57(4) (pp 15-24), 2019. Date of Publication: 01 Sep 2019.
[Review]
AN: 629515299
PMID
31503092 [https://www.ncbi.nlm.nih.gov/pubmed/?term=31503092]
Status
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Publisher
Lippincott Williams and Wilkins (E-mail: kathiest.clai@apta.org)
Year of Publication
2019

74.

Postoperative anaesthetic concerns in children: Postoperative pain, emergence delirium and postoperative nausea and vomiting.
Mehrotra S.
Embase
Indian Journal of Anaesthesia. 63(9) (pp 763-770), 2019. Date of Publication: September 2019.
[Review]
AN: 629372141
The incidence of anaesthetic complications in children is much more than in adults and sometimes with a severe outcome. Patients under one year of age, those with co-morbidities and posted for emergency surgery are at increased risk for morbidities. Sources of information on the risk involved come from institutional audit, closed claim analysis, and large-scale studies of cardiac arrest. A strategy for preventing postoperative nausea and vomiting (PONV), emergence delirium (ED) and postoperative pain should be a part of every anaesthetic plan. A planned multimodal approach should be opted consisting of nonpharmacologic and pharmacologic prophylaxis along with interventions to reduce the baseline risks. The literature in this subject is reviewed extensively to give comprehensive information to postgraduate students about the current understanding of postoperative anaesthetic concerns. Relevant articles from Pub med, review articles, meta-analysis, and editorials were the primary source of information for this article.

Published by Wolters Kluwer - Medknow.
Status
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Institution
(Mehrotra) Department of Anaesthesiology, Gandhi Medical College, Bhopal, Madhya Pradesh 462 001, India
Publisher
Wolters Kluwer Medknow Publications (B9, Kanara Business Centre, off Link Road, Ghatkopar (E), Mumbai 400 075, India)
Year of Publication
2019

75.

Perioperative fluid therapy and intraoperative blood loss in children.
Bhardwaj N.
Embase
Indian Journal of Anaesthesia. 63(9) (pp 729-736), 2019. Date of Publication: September 2019.
[Review]
AN: 629372041
Fluid and blood administration are required during surgery in children. The type, amount and tonicity of the intravenous fluids is an important aspect to be considered during anaesthesia management. The physiological differences between adults and children regarding the body water and blood volume needs to be understood. We performed a PUBMED search for English language articles using keywords including 'children', 'intravenous fluid therapy', 'crystalloids', 'colloids', 'fluid homeostasis', 'Starling equation', 'Donnan effect', 'blood loss', 'estimation of blood loss', 'blood management program'. This review discusses the physiological basis, historical background, risk of hyponatraemia, need of glucose in the intravenous fluids as well as the recent concepts in blood transfusion as related to children.

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Publisher
Wolters Kluwer Medknow Publications (B9, Kanara Business Centre, off Link Road, Ghatkopar (E), Mumbai 400 075, India)
Year of Publication
2019

76.

Addition of Intrathecal Morphine for Postoperative Pain Management in Pediatric Spine Surgery.
Musa A., Acosta F.L., Tuchman A., Movahedi R., Pendi K., Nassif L., Farhan S.A., Muallem E., Gucev G.
Embase
Clinical Spine Surgery. 32(3) (pp 104-110), 2019. Date of Publication: 01 Apr 2019.
[Review]
AN: 626478495
Study Design: Meta-analysis.
Objective(s): The objective of this study was to determine whether adjunctive intrathecal morphine (ITM) reduces postoperative analgesic consumption following pediatric spine surgery.
Summary of Background Data: Previous studies that have tested supplemental ITM to manage pain after pediatric spine surgery have been limited by small sample sizes.
Method(s): A comprehensive search of PubMed, Web of Science, Clinicaltrials.gov, and the Cochrane Central Register of Controlled Trials was performed for clinical trials and observational studies. Time to first analgesic demand, postoperative analgesic use, pain scores, and complication data were abstracted from each study. Mean difference (MD) and 95% confidence interval (CI) were used to compare continuous outcomes and odds ratios (OR) and 95% CI were used for dichotomous outcomes.
Result(s): A total of 5 studies, including 3 randomized controlled trials and 2 retrospective chart reviews, containing 636 subjects, were incorporated into meta-analysis. Subjects that were administered ITM in addition to postoperative analgesics (ITM group) were compared with those receiving postoperative analgesics only (control group). In the ITM group, time to first analgesic demand was longer (MD, 8.79; 95% CI, 4.20-13.37; P<0.001), cumulative analgesic consumption was reduced at 24 hours (MD,-0.40; 95% CI,-0.56 to-0.24; P<0.001), and cumulative analgesic consumption was reduced at 48 hours (MD,-0.43; 95% CI,-0.59 to-0.27; P<0.001). Neither postoperative pain scores at 24 hours (P=0.16) nor 48 hours (P=0.18) were significantly different between ITM and control groups. Rates of respiratory depression, nausea, vomiting, and pruritus were not different between groups (all Ps>0.05).
Conclusion(s): Addition of ITM in pediatric spine surgery produced a potent analgesic effect in the immediate postoperative period. Patients administered ITM did not request opiates as early as control and consumed fewer opiates by the second postoperative day. Furthermore, use of ITM did not increase complications such as respiratory depression, nausea, vomiting, or pruritus.

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Publisher
Lippincott Williams and Wilkins (E-mail: kathiest.clai@apta.org)
Year of Publication
2019

Database: Embase <1974 to 2023 March 31>, OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Search Strategy:
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1 ((((pre or "before" or prior to or peri) adj2 (operat* or surgery or surgical)) or preoperative or perioperative) adj3 fasting).tw,kw. (2650)
2 ((((post or intra or "after") adj2 (operat* or surgery or surgical)) or postoperative) adj3 (fluid* or milk or liquid* or meal or formula or food)).tw,kw. (9563)
3 ((((post or intra or "after") adj2 (operat* or surgery or surgical)) or postoperative) adj3 (pain* or anaesthe* or anesthe* or narcotic* or Acetaminophen or Paracetamol or NSAID* or Nonsteroidal anti-inflammatory or Non-steroidal anti-inflammatory or Opioid*)).tw,kw. (134083)
4 ((((post or intra or "after") adj2 (operat* or surgery or surgical)) or postoperative) adj3 (antibiotic* or bowel preparation*)).tw,kw. (7089)
5 ((((post or intra or "after") adj2 (operat* or surgery or surgical)) or postoperative) adj3 (thromboprophylaxis or ((trombo* or DVT or embolism or VTE or PE) adj3 (prophyl* or prevent*)))).tw,kw. (1557)
6 ((((post or intra or "after") adj2 (operat* or surgery or surgical)) or postoperative) adj3 (probiotic* or prokinetic* or gum)).tw,kw. (391)
7 or/1-6 (154391)
8 urology/ or (urological or urology or urinary).tw,kw. (930709)
9 (Circumcision or Penile or penis or inguinal or scrotal or bladder or kidney or renal or ureter* or urethra* or prostat* or testis or testes).tw,kw. (3634525)
10 or/8-9 (4106694)
11 7 and 10 (18312)
12 ((((pre or "before" or prior to or peri or post or intra or "after") and (operat* or surgery or surgical)) or preoperative or perioperative or postoperative) and (fasting or fluid* or milk or liquid* or meal or food or formula or pain* or anaesthe* or anesthe* or narcotic* or Acetaminophen or Paracetamol or NSAID* or Nonsteroidal anti-inflammatory or Non-steroidal anti-inflammatory or Opioid* or recovery or antibiotic* or bowel preparation* or ((trombo* or DVT or embolism or VTE or PE) and (prophyl* or prevent*)) or probiotic* or prokinetic* or gum)).ti. (78346)
13 12 and 10 (6410)
14 11 or 13 (21269)
15 exp Child/ or exp Infant/ or exp Minors/ or exp Adolescent/ or exp adolescence/ or exp Pediatrics/ or exp newborn/ or exp Puberty/ or high school/ or kindergarten/ or middle school/ or nursery school/ or primary school/ (7984632)
16 exp "Child Health Services"/ or exp "Child Care"/ or "Hospitals, Pediatric"/ (243286)
17 (baby or babies or child or children or pediatric* or paediatric* or peadiatric* or infan* or neonat* or newborn* or new born* or kid or kids or adolescen* or preschool or pre-school or toddler*).tw,kw. (5630575)
18 (postmatur* or prematur* or preterm* or perinat* or boy* or girl* or teen* or minors or prepubescen* or prepuber* or pubescen* or puber*).tw,kw. (1536109)
19 (schoolchild* or elementary school* or high school* or highschool* or kindergar* or nursery school* or primary school* or secondary school* or youth* or young or juvenil* or underage* or kinders or (under* adj age*) or under 16 or under 18).tw,kw. (1870389)
20 or/15-19 (10728654)
21 14 and 20 (3756)
22 limit 21 to english language (3298)
23 conference abstract.pt. or Congresses as Topic/ (4839481)
24 22 not 23 (2734)
25 case report/ or case reports/ or (case report or a rare case).ti. (5284997)
26 24 not 25 (2579)
27 note/ or editorial/ or letter/ or Comment/ or news/ or (note or editorial or letter or Comment or news).pt. (5389087)
28 26 not 27 (2555)
29 (exp animals/ or exp animal/ or exp nonhuman/ or exp animal experiment/ or animal model/ or animal tissue/ or non human/ or (rat or rats or mice or mouse or swine or porcine or murine or

sheep or lambs or pigs or piglets or rabbit or rabbits or cat or cats or dog or dogs or cattle or bovine or monkey or monkeys or trout or marmoset$1 or basic research or cell lines or in vitro or animal model or canine).tw.) not (humans/ or human/ or (men or women or patients or participants).tw.) (12928157)
30 28 not 29 (2545)
31 limit 30 to yr="2019 -Current" (671)
32 remove duplicates from 31 (403)
33 or/4-6 (9024)
34 33 and 10 and 20 (167)
35 limit 34 to english language (137)
36 35 not (23 or 25 or 27 or 29) (96)
37 remove duplicates from 36 (63)
38 32 or 37 (449)
39 remove duplicates from 38 (449)

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1.

A case of rare metachronous four primary carcinoma.
Cao Y
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Journal of Cancer Research & Clinical Oncology. 2023 Mar 24.
[Journal Article]
UI: 36959342
PURPOSE: When more than two tumors are diagnosed in the same person, it is called multiple primary cancer. It is rare to be diagnosed as four primary cancers. Here, we present one elderly male patient suffered from testicular seminoma, gastric cancer, bladder cancer and breast cancer from 1946 to 2019.
METHODS: When he was about 1.5 years old in 1946, his mother (a doctor) inadvertently found that the left scrotum of the child was enlarged. He performed left testicular resection under general anesthesia and postoperative pathological report: left testicular seminoma. In March 2007 (62 years old), the upper abdomen was distended and uncomfortable after eating, accompanied by hiccups and heartburn. He performed distal subtotal gastrectomy and postoperative pathology report: moderately and poorly differentiated adenocarcinoma of ulcer. In May 2013 (68 years old), he developed no obvious cause of painless gross hematuria. He performed robot-assisted laparoscopic radical cystectomy+pelvic lymph node dissection+bilateral ureterostomy and postoperative pathological report: invasive high-grade urothelial carcinoma at the bottom of the bladder. In February 2017 (72 years old), he found the right breast was developing, and a nodule was palpable under the skin. He performed undergo modified radical surgery in the right breast and postoperative pathological report: Invasive breast cancer.
RESULTS: During the past 70 years, he suffered from four types of tumors, all of which underwent surgical treatment. Postoperative pathology confirmed that they were malignant tumors. Genetic tumor gene testing found no pathogenic or suspected pathogenic mutations. The patient's general condition is good, with regular follow-up and no tumor recurrence
CONCLUSION: The treatment of multiple primary cancers is different from tumor recurrence. Targeted treatment for different tumors can achieve good therapeutic results. Cancer patients must be followed up regularly. Timely treatment after discovering new tumors is the key to a good prognosis.

Version ID
1
Status
Publisher
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Year of Publication
2023

2.

Ureteral Stent Placement Prior to Definitive Stone Treatment Is Associated With Higher Postoperative Emergency Department Visits and Opioid Prescriptions for Youth Having Ureteroscopy or Shock Wave Lithotripsy.
Tasian GE, Maltenfort MG, Rove K, Ching CB, Ramachandra P, DeFoor B, Fernandez N, Forrest CB, Ellison JS
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Journal of Urology. 101097JU0000000000003389, 2023 Feb 22.
[Journal Article]
UI: 36812398
PURPOSE: Little is known about the impact of ureteral stents on youth having stone surgery. We evaluated the association of ureteral stent placement before or concurrent with ureteroscopy and shock wave lithotripsy with emergency department visits and opioid prescriptions among pediatric patients.
MATERIALS AND METHODS: We conducted a retrospective cohort study of individuals aged 0-24 years who underwent ureteroscopy or shock wave lithotripsy from 2009-2021 at 6 hospitals in PEDSnet, a research network that aggregates electronic health record data from children's health systems in the United States. The exposure, primary ureteral stent placement, was defined as a stent placed concurrent with or within 60 days before ureteroscopy or shock wave lithotripsy. Associations between primary stent placement and stone-related ED visits and opioid prescriptions within 120 days of the index procedure were evaluated with mixed-effects Poisson regression.
RESULTS: Two-thousand ninety-three patients (60% female; median age 15 years, IQR 11-17) had 2,477 surgical episodes; 2,144 were ureteroscopy and 333 were shock wave lithotripsy. Primary stents were placed in 1,698 (79%) ureteroscopy episodes and 33 (10%) shock wave lithotripsy episodes. Ureteral stents were associated with a 33% higher rate of emergency department visits (IRR 1.33; 95% CI 1.02-1.73) and a 30% higher rate of opioid prescriptions (IRR 1.30; 95% CI 1.10-1.53). The magnitudes of both associations were greater for shock wave lithotripsy. Results were similar for age <18 and were lost when restricted to concurrent stent placement.
CONCLUSIONS: Primary ureteral stent placement was associated with more frequent emergency department visits and opioid prescriptions, driven by pre-stenting. These results support elucidating situations where stents are not necessary for youth with nephrolithiasis.
Version ID
1

Status
Publisher
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Ellison, Jonathan S. Department of Urology, Children's Wisconsin & Medical College of Wisconsin, Milwaukee, Wisconsin.
Year of Publication
2023

3.

Tolvaptan for Treatment of Syndrome of Inappropriate Antidiuretic Hormone Secretion (SIADH) in a Child with Corpus Callosum Agenesis.
Meena AK, Nanda PM, Sharma R, Chakrabarty B, Gulati S
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Indian Journal of Pediatrics. 2023 Feb 09.
[Journal Article]
UI: 36757652
Syndrome of inappropriate antidiuretic hormone secretion (SIADH) is one of the common causes of euvolemic hyponatremia (serum Na+ < 135 mEq/L) in hospitalized children. It is characterized by increased serum ADH, leading to water retention via its action on V2 receptors in the distal renal tubules. Various conditions such as pain, the postoperative state, drugs, central nervous system infections, tumors, malformations, and pneumonia can predispose a person to SIADH. The conventional treatment of SIADH includes fluid restriction and salt supplementation. Occasionally, this may fail to control hyponatremia, mandating pharmacological therapy. V2-receptor antagonists are an FDA-approved therapy for adults with euvolemic and hypervolemic hyponatremia. However, there is limited experience with their use in the pediatric population.

Here, the authors present a girl with corpus callosum agenesis with severe symptomatic hyponatremia due to SIADH who was successfully managed with the V2-receptor antagonist tolvaptan.

Version ID
1
Status
Publisher
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Year of Publication
2023

4.

To Compare Short-term Surgical Outcome among Patients given Continuous Postoperative Antibiotic Prophylaxis and those given no Postoperative Antibiotics after Urethroplasty for Hypospadias: A Pilot Study.
Manchanda V, Sengar M, Kumar P
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Journal of Indian Association of Pediatric Surgeons. 28(1):9-13, 2023 Jan-Feb.
[Journal Article]
UI: 36910289
Introduction: There is no well-accepted guideline or uniform practice for the usage of prophylactic antibiotics along with urethroplasty for hypospadias. As antibiotic resistance is growing, it is imperative to rationalize the usage of antibiotics when a patient is operated for hypospadias.
Aims and Objectives: The study is aimed at finding if there is any difference in outcome if prophylactic antibiotics are given after urethroplasty for hypospadias.
Study Design: Prospective randomized controlled study.
Material and Methods: Forty patients between 6 months and 12 years of age were included in the pilot study. All patients received a single preoperative antibiotic and surgery as per the discretion of the operating surgeon. The participants were randomly assigned to Group A or B, Group A not receiving any prophylactic antibiotic after surgery, and Group B receiving prophylactic antibiotics till indwelling urethral catheter was in situ as per the present antibiotic policy of the institute. The patients were followed up clinically at catheter removal, 1 week after surgery and 1 month after

surgery. Urine was analyzed at the start of surgery and after catheter removal. Data were tabulated and analyzed using nonparametric Fischer's exact test with help of Epi Info TM v5.5.8.
Results: Twenty-four patients were included in Group A and 16 in Group B. The clinical profile is presented in the detailed manuscript. Although pus cells could be demonstrated on urine examination in 82.5% of the study participants, only 10% grew organisms on culture media. No difference could be demonstrated among the two groups statistically. On following up with the patients for 1 month, the groups were comparable with respect to surgical site infections, and surgical complications such as urethrocutaneous fistula/dehiscence and thin stream. [Table: see text].
Discussion: There was a wide variability among practicing pediatric urologists in prescribing antibiotic prophylaxis for patients undergoing urethroplasty for hypospadias. In the Urologic Surgery Antimicrobial Prophylaxis Policy by the American Urology Association, no recommendation has been made with respect to urethroplasty. Our results are in concurrence with the available English literature which has not shown any benefit of prophylactic antibiotics after hypospadias repair.
Conclusions: Antibiotics may not have a definite role in the prevention of surgical complications and it may be imperative to avoid unnecessary antibiotics to reduce antibiotic resistance.

Version ID
1
Status
PubMed-not-MEDLINE
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Kumar, Parveen. Department of Pediatric Surgery, Chacha Nehru Bal Chikitsalaya, New Delhi, India.
PMID
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9997588
Year of Publication
2023

5.

Glycemic Stress Index: Does It Correlate with the Intensive Care Length of Stay?.
Georges M, Engelhardt T, Ingelmo P, Mentegazzi F, Bertolizio G
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Children. 10(2), 2023 Feb 09.
[Journal Article]
UI: 36832457
Postoperative hyperglycemia is an independent risk factor for postoperative complications. In adults, perioperative hyperglycemia is influenced by prolonged fasting, but data in children are lacking. The Glycemic Stress Index (GSI) has been shown to predict prolonged Pediatric Intensive Care Unit (PICU) stays in neurosurgical patients. This study aimed to confirm the correlation between GSI and duration of intubation, PICU stay, and postoperative complications in infants undergoing elective open heart surgery. The correlation between preoperative fasting and GSI was also investigated.

METHODS: A retrospective chart review of 85 infants <= 6 months undergoing elective open heart surgery was performed. GSI values >= 3.9 and 4.5 were tested to determine whether they carried a higher incidence of postoperative complications (metabolic uncoupling, kidney injury, ECMO, and death). The correlation between GSI and the length of intubation, PICU stay, and duration of fasting were also investigated. Perioperative factors such as age, weight, blood gas analysis, use of inotropes, and risk adjustment for congenital heart surgery were also analyzed as possible predictors.
RESULTS: GSI correlated with the duration of intubation and PICU stay. A GSI >= 4.5, but not 3.9, was associated with a higher incidence of metabolic uncoupling. GSI was not influenced by preoperative fasting. None of the preoperative patient factors analyzed was associated with prolonged intubation, PICU stay, or PICU complications. An abnormal creatinine before surgery increased the risk of developing acute kidney injury postoperatively.
CONCLUSIONS: GSI may be valuable to predict prolonged intubation, PICU stay, and metabolic derangement in infants undergoing cardiac surgery. Fasting does not appear to affect GSI.
Version ID
1
Status
PubMed-not-MEDLINE
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PMID
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9954865
Year of Publication
2023

6.

Measuring enhanced recovery in obstetrics: a narrative review.
Ciechanowicz S, Ke JXC, Sharawi N, Sultan P
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
AJOG Global Reports. 3(1):100152, 2023 Feb.
[Journal Article]
UI: 36699096
Enhanced recovery after cesarean delivery is a protocolized approach to perioperative care, with the aim to optimize maternal recovery after surgery. It is associated with improved maternal and neonatal outcomes, including decreased length of hospital stay, opioid consumption, pain scores,

complications, increased maternal satisfaction, and increased breastfeeding success. However, the pace and enthusiasm of adoption of enhanced recovery after cesarean delivery internationally has not yet been matched with high-quality evidence demonstrating its benefit, and current studies provide low- to very low-quality evidence in support of enhanced recovery after cesarean delivery. This article provides a summary of current measures of enhanced recovery after cesarean delivery success, and optimal measures of inpatient and outpatient postpartum recovery. We summarize outcomes from 22 published enhanced recovery after cesarean delivery implementation studies and 2 meta-analyses. A variety of disparate metrics have been used to measure enhanced recovery after cesarean delivery success, including process measures (length of hospital stay, bundle compliance, preoperative fasting time, time to first mobilization, time to urinary catheter removal), maternal outcomes (patient-reported outcome measures, complications, opioid consumption, satisfaction), neonatal outcomes (breastfeeding success, Apgar scores, maternal-neonatal bonding), cost savings, and complication rates (maternal readmission rate, urinary recatheterization rate, neonatal readmission rate). A core outcome set for use in enhanced recovery after cesarean delivery studies has been developed through Delphi consensus, involving stakeholders including obstetricians, anesthesiologists, patients, and a midwife. Fifteen measures covering key aspects of enhanced recovery after cesarean delivery adoption are recommended for use in future enhanced recovery after cesarean delivery implementation studies. The use of these outcome measures could improve the quality of evidence surrounding enhanced recovery after cesarean delivery. Using evidence-based evaluation guidelines developed by the COSMIN (COnsensus-based Standards for the selection of health Measurement INstruments) group, the Obstetric Quality of Recovery score (ObsQoR) was identified as the best patient-reported outcome measure for inpatient postpartum recovery. Advances in our understanding of postpartum recovery as a multidimensional and dynamic construct have opened new avenues for the identification of optimum patient-reported outcome measures in this context. The use of standardized measures such as these will facilitate pooling of data in future studies and improve overall levels of evidence surrounding enhanced recovery after cesarean delivery. Larger studies with optimal study designs, using recommended outcomes including patient-reported outcome measures, will reduce variation and improve data quality to help guide future recommendations.

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7.

Reducing Opioid Prescriptions after Common Outpatient Pediatric Urologic Surgeries: A Quality Improvement Assessment.
Stout M, Alpert S, Kersey K, Ching C, Dajusta D, Fuchs M, McLeod D, Jayanthi R
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Pediatric Quality & Safety. 8(1):e623, 2023 Jan-Feb.
[Journal Article]
UI: 36698439
Pediatric patients undergoing outpatient surgeries often receive prescriptions for postoperative pain, including opioid medications. As a result, the American Academy of Pediatrics formally challenged all pediatric surgeons to decrease opioid prescribing for common specialty-specific outpatient procedures at discharge. To meet this challenge, we designed a quality improvement project to decrease the average number of opioid doses administered to pediatric patients undergoing 3 common outpatient urologic surgeries: circumcision, orchiopexy, and inguinal hernia repair (IHR).
Methods: We formally challenged providers at our institution to reduce opioid doses per prescription and administration to patients overall. We performed a retrospective chart review at our single pediatric institution to establish baseline opioid prescribing values from July 2017 to March 2018. We aimed to reduce this value by 50% in 6 months and sustain this decrease throughout the project duration.
Results: We performed 1,518 orchiopexies, 1,505 circumcisions, and 531 IHRs. The percent change in the average number of opioid doses prescribed per patient from baseline values assessed to 2021 was statistically significant for orchiopexies ($P < 0.0001$), IHRs ($P < 0.0001$), and circumcisions ($P < 0.0001$). In addition, the change in the percentage of patients prescribed opioids from baseline was statistically significant for all 3 procedures ($P < 0.001$).
Conclusions: This project demonstrated that through an organized quality improvement initiative, the average number of opioid medications prescribed and the total percentage of patients prescribed opioids following common outpatient pediatric urologic procedures can be decreased by at least 50% and sustained through project duration.

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8.

Ultrasound-guided Techniques for Perioperative Analgesia in Pediatric Lower Abdominal Surgeries: Quadratus Lumborum Block with Bupivacaine versus Caudal Bupivacaine and Neostigmine.
Ashoor TM, Zain EM, Reyad MK, Hasseb AM, Esmat IM
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Pain Physician. 26(2):137-147, 2023 Mar.
[Randomized Controlled Trial. Journal Article]
UI: 36988360
BACKGROUND: Ultrasound-guided regional anesthesia techniques for perioperative analgesia in pediatric patients scheduled for lower abdominal surgeries can be achieved either by quadratus lumborum block (QLB) or caudal block (CB). Neostigmine was co-administered with caudal bupivacaine to shorten the onset and extend the duration of analgesia.
OBJECTIVES: This study aimed to compare between 2 ultrasound-guided techniques used for perioperative analgesia (QLB with bupivacaine vs. CB with bupivacaine/neostigmine) regarding the total amount of rescue analgesic (acetaminophen mg/kg) used for pain relief at 24 hours postsurgery in pediatric patients undergoing lower abdominal surgeries in a developing country and to discuss existing barriers during the implementation of both techniques.
STUDY DESIGN: A randomized, double-blind, prospective, single-center study.
SETTING: Ain-Shams University Hospitals.
METHODS: Eighty pediatric patients scheduled for lower abdominal surgeries under general anesthesia were randomly allocated to receive either ultrasound-guided QLB using bupivacaine or ultrasound-guided CB using a bupivacaine/neostigmine mixture. The total amount of rescue analgesic (acetaminophen mg/kg) 24 hours postsurgery was considered as the primary outcome while the time to first rescue analgesia, pain score, postoperative nausea and vomiting, bradycardia, hypotension, and urinary retention were considered as secondary outcomes.
RESULTS: In the QLB group, the time to first rescue analgesia was longer whereas the total analgesic dose (mg/kg) was lower than the CB group ($P < 0.001$, $P = 0.007$, respectively). While, on the other hand, in CB group, the time to perform the block was shorter and Parents Satisfaction Score 24 h postsurgery was lower than the QLB group ($P < 0.001$, $P < 0.001$, respectively). Side effects were infrequent and comparable between the study groups.
LIMITATIONS: First, the researchers did not assess the dermatomal level before or after the operation in either group. Second, the investigators should have noticed the first voiding time to demonstrate accurately the incidence of urine retention. Third, a cost-effectiveness analysis of perioperative costs (drugs, staff, resources being used) of these regional anesthesia techniques when applied in an ambulatory setting should have been done, which would be helpful for those in resource-limited settings.
CONCLUSIONS: Postoperative analgesia for pediatric patients undergoing lower abdominal surgeries can be safely and effectively achieved by QLB with bupivacaine and a CB with a bupivacaine/neostigmine mixture with priority given to CB, especially in resource-limited settings.
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1
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9.

Psychological disorders in patients with chronic postoperative inguinal pain.
Miller BT, Scheman J, Petro CC, Beffa LRA, Prabhu AS, Rosen MJ, Krpata DM
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Hernia. 27(1):35-40, 2023 02.
[Journal Article]
UI: 35960385
PURPOSE: Chronic postoperative inguinal pain (CPIP), a complication of inguinal hernia repair, may negatively affect mental health. The rates of psychological disorders in patients with CPIP are unknown. We aimed to describe the prevalence of psychological disorders coinciding with CPIP.
METHODS: A retrospective chart review was performed of all patients seen at the Cleveland Clinic Center for Abdominal Core Health's inter-disciplinary Chronic Groin Pain Clinic. This clinic is unique in that all patients are evaluated by a surgeon, a sonographer and radiologist, and a behavioral medicine psychologist. Patient psychological history and treatment, Depression Anxiety and Stress Scale (DASS) scores, pain catastrophizing, and trauma or abuse history were captured.
RESULTS: From January 2018 to January 2022, 61 patients were evaluated and included in the study. Psychological treatment had been provided to 37 (61%) patients (present: 16 (27%), past: 21 (35%)). The most common psychological disorders represented were depression (N = 13, 22%), anxiety (N = 10, 17%), and post-traumatic stress disorder (N = 5, 8%). DASS scores indicated that 20 (33%) patients were reporting symptoms of depression and 16 (27%) patients were reporting symptoms of anxiety. Of the 40 patients assessed for pain catastrophizing, 28 (70%) reported rumination, 9 (23%) reported magnification, and 23 (58%) reported feelings of helplessness. A childhood history of emotional or physical abuse was reported by 11 (18%) patients.
CONCLUSION: An inter-disciplinary groin pain clinic has revealed that patients with CPIP frequently have pre-existing complex psychosocial issues. A multi-specialty approach to CPIP may improve preoperative assessments and identify patients who may benefit from further psychological evaluation and treatment.

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10.

Robotic repair of pediatric hernias: Current techniques and practices.
Scrushy MG, Jacobson JC, Pandya SR, Gillory LA
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Seminars in Pediatric Surgery. 32(1):151261, 2023 Feb.
[Journal Article]
UI: 36736163
The use of minimally invasive surgical techniques has gained popularity in pediatric surgery due to decreased length of stay, improved post-operative pain and smaller incisions. Laparoscopic assisted robotic surgical procedures are becoming more common in adults as they carry all of the benefits of traditional MIS but also allow for improved dexterity, visualization and surgeon ergonomics. In adults, hernia repairs are one of the most commonly performed robotic cases but adaption to pediatric repairs has been slower. Case reports and small case series have described a number of various types of pediatric hernia repairs including congenital diaphragmatic hernias, paraesophageal hernias and inguinal hernias. These cases have demonstrated that robotic repair of pediatric hernias is safe and feasible with minimal documented post-operative complications or recurrence. Future directions should focus on larger patient volume in order to assess outcomes between traditional laparoscopic and robotic approaches.

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1
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Year of Publication
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11.

Arthroscopic rotator cuff repair performed with intra-articular tranexamic acid: could it provide improved visual clarity and less postoperative pain? A prospective, double-blind, randomized study of 63 patients.
Bildik C, Pehlivanoglu T
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Journal of Shoulder & Elbow Surgery. 32(2):223-231, 2023 Feb.
[Randomized Controlled Trial. Journal Article]
UI: 36403924
BACKGROUND: Tranexamic acid (TXA) has been widely used in orthopedic surgery with the aim of reducing intraoperative and postoperative bleeding, as well as bleeding-related complications. The purpose of this study was to assess whether intra-articular use of TXA during arthroscopic rotator cuff tear (RCT) repair could improve visual clarity, shorten the duration of the operation, and provide superior pain management as compared with placebo.
METHODS: We conducted a prospective, randomized, double-blind, placebo-controlled study. Patients aged >=18 years with a magnetic resonance imaging-confirmed RCT and a history of failed conservative treatment for >=6 months were included. Patients with a history of coagulopathy; a history of cardiac, renal, or hepatic disease; a history of conservative treatment for <6 months; and/or acute RCTs were excluded. Visual clarity as the primary outcome was assessed using an arthroscopic visual scale comprising 5 grades-ranging from grade 1, best visual clarity, to grade 5, worst visual clarity (requiring conversion to open surgery)-after the procedure by the operating surgeon every 10 minutes throughout the video of the operation. Secondary outcomes were operative duration and postoperative pain scores.
RESULTS: A total of 63 patients with similar demographic data (age and sex) and intraoperative mean arterial pressure were enrolled and randomized into 2 groups: The TXA group comprised 32 patients with a mean age of 56.46 years, and the placebo group comprised 31 patients with a mean age of 57.83 years. The TXA group was reported to have significantly superior visual clarity (mean arthroscopic visual scale score, 1.5 +/- 0.5 vs. 2.86 +/- 1.7; P < .001), with a significantly higher percentage of grade 1 visual clarity (78.1% vs. 32.2%, P < .001) and a significantly lower percentage of grade 4 visual clarity (0% vs. 3.2%, P = .003). Grade 5 visual clarity was not recorded in any patient in either group. The TXA group showed a significantly shorter operative duration (55.73 minutes vs. 67.26 minutes, P = .001) and superior pain scores at 8 hours (2.3 vs. 3.6, P = .002) and 24 hours (1.6 vs. 2.4, P < .001) postoperatively. No complications were recorded in either group.
CONCLUSIONS: This study showed that during arthroscopic rotator cuff repair procedures, intra-articular use of TXA was able to provide superior arthroscopic visual clarity while shortening the total operative duration significantly and providing significantly superior pain management in the first 8 and 24 hours postoperatively as compared with placebo. This study underlines the safety and efficacy of intra-articular TXA use in arthroscopic rotator cuff repair.

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12.

Early postoperative weight-based fluid overload is associated with worse outcomes after neonatal cardiac surgery.
Brandewie K.L., Selewski D.T., Bailly D.K., Bhat P.N., Diddle J.W., Ghbeis M., Krawczeski C.D., Mah K.E., Neumayr T.M., Raymond T.T., Reichle G., Zang H., Alten J.A.
Embase
Pediatric nephrology (Berlin, Germany). (no pagination), 2023. Date of Publication: 27 Mar 2023. [Article]
AN: 640885684
OBJECTIVES: Evaluate the association of postoperative day (POD) 2 weight-based fluid balance (FB-W)>10% with outcomes after neonatal cardiac surgery.
METHOD(S): Retrospective cohort study of 22 hospitals in the NEonatal and Pediatric Heart and Renal Outcomes Network (NEPHRON) registry from September 2015 to January 2018. Of 2240 eligible patients, 997 neonates (cardiopulmonary bypass (CPB) n=658, non-CPB n=339) were weighed on POD2 and included.
RESULT(S): Forty-five percent (n=444) of patients had FB-W>10%. Patients with POD2 FB-W>10% had higher acuity of illness and worse outcomes. Hospital mortality was 2.8% (n=28) and not independently associated with POD2 FB-W>10% (OR 1.04; 95% CI 0.29-3.68). POD2 FB-W>10% was associated with all utilization outcomes, including duration of mechanical ventilation (multiplicative rate of 1.19; 95% CI 1.04-1.36), respiratory support (1.28; 95% CI 1.07-1.54), inotropic support (1.38; 95% CI 1.10-1.73), and postoperative hospital length of stay (LOS 1.15; 95% CI 1.03-1.27). In secondary analyses, POD2 FB-W as a continuous variable demonstrated association with prolonged durations of mechanical ventilation (OR 1.04; 95% CI 1.02-1.06], respiratory support (1.03; 95% CI 1.01-1.05), inotropic support (1.03; 95% CI 1.00-1.05), and postoperative hospital LOS (1.02; 95% CI 1.00-1.04). POD2 intake-output based fluid balance (FB-IO) was not associated with any outcome.
CONCLUSION(S): POD2 weight-based fluid balance>10% occurs frequently after neonatal cardiac surgery and is associated with longer cardiorespiratory support and postoperative hospital LOS. However, POD2 FB-IO was not associated with clinical outcomes. Mitigating early postoperative fluid accumulation may improve outcomes but requires safely weighing neonates in the early postoperative period. A higher resolution version of the Graphical abstract is available as Supplementary information.

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13.

Ultrasound-guided transversalis fascia plane block versus lateral quadratus lumborum plane block for analgesia after inguinal herniotomy in children: a randomized controlled non-inferiority study.
Abdelbaser I., Salah D.M., Ateyya A.A., Abdo M.I.
Embase
BMC Anesthesiology. 23(1) (no pagination), 2023. Article Number: 82. Date of Publication: December 2023.
[Article]
AN: 2022116236
Background: Surgical repair of inguinal hernia is one of the most common day case surgeries in the pediatric population. This study compared the postoperative analgesic effects of transversalis fascia plane block (TFB) versus quadratus lumborum block (QLB) in children scheduled for open unilateral inguinal herniotomy.
Method(s): In this prospective, randomized, double-blind, controlled non-inferiority study, 76 eligible patients were recruited. Patients were randomly allocated to either the TFB or QLB group. The primary outcome measure was the proportion of patients who needed rescue analgesia during the first postoperative 12 h. The secondary outcomes were, the time needed to perform the block, the postoperative FLACC score, intraoperative heart rate (HR) and mean arterial pressure (MAP).
Result(s): The proportion of patients who required a rescue analgesic was comparable (p = 1.000) between the TFB group (7/34, 20.5%) and the QLB group (6/34, 17.6%). The median [Q1-Q3] time needed to perform the block (min) was significantly longer (p < 0.001) in the QLB group

(5[5]) compared with the TFB group. The postoperative FLACC pain scale was comparable between the two groups at all-time points of assessment. There is no difference regarding the heart rate and mean arterial blood pressure values at the time points that the values were recorded. (P > 0.005).
Conclusion(s): Both TFB and QLB similarly provide good postoperative analgesia by reducing the proportion of patients who required rescue analgesia, pain scores and analgesic consumption. Moreover, TFB is technically easier than QLB.

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14.

Fluid balance in pediatric postoperative liver transplant recipients.
Winters J.M., Brocks R., Chapin C.A., Lemoine C.P., Superina R., Brandt K.A., Sanchez-Pinto L.N., Barhight M.F.
Embase
Pediatric Transplantation. (no pagination), 2023. Date of Publication: 2023.
[Article]
AN: 2022215130
Background: Positive fluid balance (FB) is associated with poor outcomes in critically ill children but has not been studied in pediatric liver transplant (LT) recipients. Our goal is to investigate the relationship between postoperative FB and outcomes in pediatric LT recipients.
Method(s): We performed a retrospective cohort study of first-time pediatric LT recipients at a quaternary care children's hospital. Patients were stratified into three groups based on their FB in the first 72 h postoperatively: <10%, 10-20%, and > 20%. Outcomes were pediatric intensive care unit (PICU) and hospital length of stay, ventilator-free days (VFD) at 28 days, day 3 severe acute kidney injury, and postoperative complications. Multivariate analyses were adjusted for age, preoperative admission status, and Pediatric Risk of Mortality (PRISM)-III score.
Result(s): We included 129 patients with median PRISM-III score of 9 (interquartile range, IQR 7-15) and calculated Pediatric End-stage Liver Disease score of 15 (IQR 2-23). A total of 37 patients (28.7%) had 10-20% FB, and 26 (20.2%) had >20% FB. Greater than 20% FB was associated with an increased likelihood of an additional PICU day (adjusted incident rate ratio [aIRR] 1.62, 95% CI: 1.18-2.24), an additional hospital day (aIRR 1.39, 95% CI: 1.10-1.77), and lower likelihood of a VFD at 28 days (aIRR 0.85, 95% CI: 0.74-0.97). There were no differences between groups in the likelihood of postoperative complications.
Conclusion(s): In pediatric LT recipients, >20% FB at 72 h postoperatively is associated with increased morbidities, independent of age and severity of illness. Additional studies are needed to explore the impact of fluid management strategies on outcomes.

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15.

Analgesic efficacy of ultrasound-guided bilateral transversus abdominis plane block in children: retrospective analysis of 97 cases.
Pampal H.K., Erel S., Turhan S., Ugras Dikmen A., Isik B.
Embase
Turkish Journal of Medical Sciences. 53(1) (pp 374-381), 2023. Date of Publication: 2023.
[Article]
AN: 2022866806
Background/aim: Transversus abdominis plane (TAP) block is a method for postoperative pain management. Studies on children are gradually increasing. The aim of this retrospective study was to evaluate effectiveness of TAP block on pain control, its side effects, and parental satisfaction levels in children.
Material(s) and Method(s): Study included patients operated between January 2019 and December 2020 in Gazi University Faculty of Medicine. Total of 97 patients (35 girls, 62 boys) between 5 and 18 years who had an ultrasound guided TAP block for lower abdominal or inguinal surgery were examined retrospectively. TAP block application time, hemodynamic variables, postoperative pain scores, postoperative analgesic requirement, sex, surgical history and satisfaction levels were evaluated.
Result(s): The average application time of TAP block was 9.48 +/- 3.4 and the time between TAP block and surgical incision was 12.06 +/- 6.1 min. Pain scores in postanesthesia care unit (PACU) and at the postoperative first hour decreased as the time between TAP block and surgical incision increased ($p < 0.05$). Girls have higher pain scores at PACU than boys ($p < 0.05$). Previous surgical history increased postoperative 1st hour pain scores (OR: 13.8; 95% CI 1.7-113.3; $p = 0.01$). There was a significant negative correlation between pain scores at PACU, postoperative

1st, 2nd, 4th, 6th, 12th and satisfaction levels (r = -0.45, r = -0.56, r = -0.60, r = -0.54, r = -0.52, r = -0,43, respectively, p < 0.05).
Conclusion(s): Ultrasound-guided TAP blocks can be performed safely in children in lower abdominal surgeries. However, the efficacy of TAP block on late term postoperative pain scores is limited. Time interval between the TAP block and the incision, sex, and pain memory, as well as other factors that may improve the quality of TAP block should be considered.

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16.

Febrile urinary tract infection after Double-J stent removal is associated with restenosis after laparoscopic pyeloplasty: A propensity score matched analysis of 503 children.
Liu P., Li J., Fan S., Li Z., Yang Z., Wang X., Song H., Zhang W.
Embase
Journal of Pediatric Urology. 19(2) (pp 200.e1-200.e7), 2023. Date of Publication: April 2023.
[Article]
AN: 2022076131
Objective: To analyze the association between the febrile urinary tract infection (fUTI) after Double-J (DJ) stents removal and restenosis after laparoscopic pyeloplasty (LP). Study design: We retrospectively reviewed the clinical data of patients who were treated with transperitoneal LP for ureteropelvic junction obstruction from 2016 to 2020. Patients were divided into two groups according to whether they developed fUTI after DJ stent removal within 48 h. The 1:3 Propensity Score Matched (PSM) method was used to balance confounding variables.
Result(s): 503 patients were included in the study. 28 (5.57%) patients developed fUTI after DJ stent removal. Compared with the non-fUTI group, age was younger, and weight was lower (P < 0.05) in the fUTI group. Restenosis occurred in 11 (2.2%) patients, of which six patients developed fUTI after DJ stent removal. The revision surgery rate in the fUTI group was significantly higher than in the non-fUTI group (21.4% vs. 1.1%, P < 0.01). After PSM, the results remained consistent. For 492 patients without restenosis, 22 patients developed fUTI. Compared with the non-fUTI group, the larger anteroposterior diameter (APD) and higher APD/cortical thickness (P/C) ratio were observed in the fUTI group at three months and six months postoperatively (P < 0.05), but the difference vanished at 12 months and 24 months after surgery (Figure).
Discussion(s): FUTI after DJ stent removal is not uncommon after LP, and surgeons are often concerned about the possibility of restenosis. In the present study, although our results demonstrated a significant association between them, restenosis patients comprise only about 20% of fUTI patients. Based on our clinical observations, fUTI is often developed in children from 1 to 6 years of age, and the younger patients may be afraid of voiding because of the postoperative pain after DJ stent removal. Besides, intraoperative manipulation of DJ stent

removal may lead to transient edema in the anastomotic site, causing the fUTI. For patients who develop fUTI after DJ stent removal but without persistent symptoms, the transient worsening of hydronephrosis during the early postoperative period may not impact long-term outcomes (As shown in Figure). Additional follow-up is needed to prevent the deterioration of renal function. Conclusion(s): Our result demonstrated that fUTI after DJ stent removal is associated with restenosis after LP. For fUTI patients without restenosis, APD and P/C ratio exhibited transient worsening at three months and six months postoperatively, decreasing gradually during follow-up. Patients who develop fUTI after DJ stent removal should be monitored.

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Elsevier Ltd
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17.

Effects of ultrasound guided caudal epidural and transversus abdominis plane block on postoperative analgesia in pediatric inguinal hernia repair surgeries.
Polat H., Senturk E., Savran Karadeniz M., Bingul E.S., Emre Demirel E., Erginel B., Tugrul K.M.
Embase
Journal of Pediatric Urology. 19(2) (pp 213.e1-213.e7), 2023. Date of Publication: April 2023.
[Article]
AN: 2021363867
Introduction: Ultrasound guided caudal epidural block (CEB) and transversus abdominis plane block (TAPB) are two techniques which are used for pain management after inguinal hernia surgeries (IHR). CEB is accepted as gold standard for lower abdominal surgeries while TAPB is more popular.
Objective(s): It is aimed to compare ultrasound guided CEB and TAPB for postoperative pain scores, additional analgesic requirement and chronic pain development in pediatric bilateral open IHR. Study design: Seventy patients aged 1-7 years undergoing bilateral open IHR were included in this prospective, randomized, double-blinded study. Patients were randomized into group T (Bilateral TAPB) and group C (CEB). Postoperative FLACC (Face, Legs, Activity, Cry, Consolability) scores were evaluated for pain density. Additional analgesic requirement, length of hospital stay was also recorded. Chronic pain is evaluated within a subgroup by using "revised Bieri faces pain scale" in the postoperative second month.
Result(s): Postoperative 15th, 30th, 45th min, first, second hour FLACC scores were similar in both groups ($P > 0.05$). In group C, FLACC scores at postoperative sixth and 24th were significantly higher than group T (1 (0-5) vs 0 (0-2); 1 (0-3) vs 0 (0-2), respectively; $P < 0.001$). Additional analgesic requirement in the postoperative 24 h was found to be statistically higher in Group C (56.7%) than in Group T (20%) ($P < 0.01$). Chronic pain development did not differ between the groups ($P > 0.05$). Length of hospital stay was found to be shorter in patients in Group T compared to patients in Group C [10 (5-14) vs 16 (5-18) hours, respectively; $P < 0.01$)].

Discussion(s): Our results exhibited that TAPB and CEB for bilateral IHR have similar early analgesic efficacy in children. However; CEB patients experienced higher FLACC scores at the postoperative sixth and 24th hours, and the need for additional analgesics was higher and the length of hospital stay was longer comparing to TAPB. Of note, chronic pain was not observed in any of our subgroup patients (n = 21) who are older than four years.
Conclusion(s): For bilateral IHR, US-guided CEB and TAPB have similar analgesic efficacy in the first six hours, postoperatively, However, TAPB appears to be slightly superior than CEB in terms of subacute pain and length of stay which is still not clinically distinctive.[Formula presented]

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18.

Vaginoscopic Management of OHVIRA (Obstructive Hemivagina and Ipsilateral Renal Agenesis).
Paul P.G., Sudhakar M., Shah M., Chowdary V.S., Paul G.
Embase
Journal of Minimally Invasive Gynecology. (no pagination), 2023. Date of Publication: 2023.
[Article]
AN: 2023343563
Objective: To describe the vaginoscopic management of longitudinal vaginal septum in the case of obstructive hemivagina and ipsilateral renal agenesis (OHVIRA) syndrome.
Design(s): Surgical video describing step-by-step management.
Setting(s): OHVIRA syndrome also known as Herlyn-Werner-Wunderlich syndrome is a triad of obstructed hemivagina, uterus didelphys, and ipsilateral renal anomaly [1] (Supplimentary Video 1). Patients usually present after menarche with progressive dysmenorrhea, lower abdominal pain, a paravaginal mass, foul mucopurulent discharge, and intermenstrual bleeding due to hemi hematocolpos [2]. Magnetic resonance imaging is the choice of investigation [3]. Surgical resection of the septum is the choice of treatment, which can be done vaginoscopically to reduce postoperative pain and promote enhanced recovery [4]. In this video, we will demonstrate a case of a 28-years old, nulliparous woman diagnosed with uterine didelphys having lower abdominal pain and persistent vaginal discharge.
Intervention(s): The video demonstrates the technique of vaginoscopic excision of the right hemi-vaginal septum that resulted in complete visualization of both cervices. Diagnostic laparoscopy confirmed uterine didelphys. The left cervix was visualized and the hysteroscope was negotiated

into the cervical canal (Supplimentary Video 2). The left cavity was normal with left ostia. Intraoperative transrectal-ultrasound was done to localize the cystic collection in the right hemivagina. Needle aspiration of cystic collection was done over the bulging portion of the right hemivagina and mucoid material was aspirated. Longitudinal obstructive vaginal septum was incised using a collins knife and mucoid secretions were drained (Supplimentary Video 3). Hysteroscope inserted into opened right hemivagina, negotiated through the right cervix and right hemiuterus with right ostia was visualized. The residual septum was resected with a loop electrode and hemostasis was ensured. Cystoscopy done, left ureteric orifice with urine reflux visualized. Vaginal examination showed both cervices with near normal reconstructed vagina.
Conclusion(s): The possibility of OHVIRA syndrome should be considered in all cases of uterine didelphys. Vaginoscopic management is a safe and effective method with a minimally invasive approach.

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19.

Systemic opioids versus other analgesics and sedatives for postoperative pain in neonates.
Kinoshita M., Stempel K.S., Borges do Nascimento I.J., Bruschettini M.
Embase
Cochrane Database of Systematic Reviews. 2023(3) (no pagination), 2023. Article Number: CD014876. Date of Publication: 03 Mar 2023.
[Review]
AN: 640792941
Background: Neonates may undergo surgery because of malformations such as diaphragmatic hernia, gastroschisis, congenital heart disease, and hypertrophic pyloric stenosis, or complications of prematurity, such as necrotizing enterocolitis, spontaneous intestinal perforation, and retinopathy of prematurity that require surgical treatment. Options for treatment of postoperative pain include opioids, non-pharmacological interventions, and other drugs. Morphine, fentanyl, and remifentanil are the opioids most often used in neonates. However, negative impact of opioids on the structure and function of the developing brain has been reported. The assessment of the effects of opioids is of utmost importance, especially for neonates in substantial pain during the postoperative period.
Objective(s): To evaluate the benefits and harms of systemic opioid analgesics in neonates who underwent surgery on all-cause mortality, pain, and significant neurodevelopmental disability compared to no intervention, placebo, non-pharmacological interventions, different types of opioids, or other drugs.
Search Method(s): We searched Cochrane CENTRAL, MEDLINE via PubMed and CINAHL in May 2021. We searched the WHO ICTRP, clinicaltrials.gov, and ICTRP trial registries. We

searched conference proceedings, and the reference lists of retrieved articles for RCTs and quasi-RCTs.
Selection Criteria: We included randomized controlled trials (RCTs) conducted in preterm and term infants of a postmenstrual age up to 46 weeks and 0 days with postoperative pain where systemic opioids were compared to 1) placebo or no intervention; 2) non-pharmacological interventions; 3) different types of opioids; or 4) other drugs.
Data Collection and Analysis: We used standard Cochrane methods. Our primary outcomes were pain assessed with validated methods, all-cause mortality during initial hospitalization, major neurodevelopmental disability, and cognitive and educational outcomes in children more than five years old. We used the fixed-effect model with risk ratio (RR) and risk difference (RD) for dichotomous data and mean difference (MD) for continuous data. We used GRADE to assess the certainty of evidence for each outcome.
Main Result(s): We included four RCTs enrolling 331 infants in four countries across different continents. Most studies considered patients undergoing large or medium surgical procedures (including major thoracic or abdominal surgery), who potentially required pain control through opioid administration after surgery. The randomized trials did not consider patients undergoing minor surgery (including inguinal hernia repair) and those individuals exposed to opioids before the beginning of the trial. Two RCTs compared opioids with placebo; one fentanyl with tramadol; and one morphine with paracetamol. No meta-analyses could be performed because the included RCTs reported no more than three outcomes within the prespecified comparisons. Certainty of the evidence was very low for all outcomes due to imprecision of the estimates (downgrade by two levels) and study limitations (downgrade by one level). Comparison 1: opioids versus no treatment or placebo. Two trials were included in this comparison, comparing either tramadol or tapentadol with placebo. No data were reported on the following critical outcomes: pain; major neurodevelopmental disability; or cognitive and educational outcomes in children more than five years old. The evidence is very uncertain about the effect of tramadol compared with placebo on all-cause mortality during initial hospitalization (RR 0.32, 95% Confidence Interval (CI) 0.01 to 7.70; RD -0.03, 95% CI -0.10 to 0.05, 71 participants, 1 study; I2 = not applicable). No data were reported on: retinopathy of prematurity; or intraventricular hemorrhage. Comparison 2: opioids versus non-pharmacological interventions. No trials were included in this comparison. Comparison 3: head-to-head comparisons of different opioids. One trial comparing fentanyl with tramadol was included in this comparison. No data were reported on the following critical outcomes: pain; major neurodevelopmental disability; or cognitive and educational outcomes in children more than five years old. The evidence is very uncertain about the effect of fentanyl compared with tramadol on all-cause mortality during initial hospitalization (RR 0.99, 95% CI 0.59 to 1.64; RD 0.00, 95% CI -0.13 to 0.13, 171 participants, 1 study; I2 = not applicable). No data were reported on: retinopathy of prematurity; or intraventricular hemorrhage. Comparison 4: opioids versus other analgesics and sedatives. One trial comparing morphine with paracetamol was included in this comparison. The evidence is very uncertain about the effect of morphine compared with paracetamol on COMFORT pain scores (MD 0.10, 95% CI -0.85 to 1.05; 71 participants, 1 study; I2 = not applicable). No data were reported on the other critical outcomes, i.e. major neurodevelopmental disability; cognitive and educational outcomes in children more than five years old, all-cause mortality during initial hospitalization; retinopathy of prematurity; or intraventricular hemorrhage. Authors' conclusions: Limited evidence is available on opioid administration for postoperative pain in newborn infants compared to either placebo, other opioids, or paracetamol. We are uncertain whether tramadol reduces mortality compared to placebo; none of the studies reported pain scores, major neurodevelopmental disability, cognitive and educational outcomes in children older than five years old, retinopathy of prematurity, or intraventricular hemorrhage. We are uncertain whether fentanyl reduces mortality compared to tramadol; none of the studies reported pain scores, major neurodevelopmental disability, cognitive and educational outcomes in children older than five years old, retinopathy of prematurity, or intraventricular hemorrhage. We are uncertain whether morphine reduces pain compared to paracetamol; none of the studies reported major neurodevelopmental disability, cognitive and educational outcomes in children more than five years old, all-cause mortality during initial hospitalization, retinopathy of prematurity, or intraventricular hemorrhage. We identified no studies comparing opioids versus non-pharmacological interventions.

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20.

Patient-reported outcomes in pain management after ambulatory pediatric general and urologic surgery.

Pace D., Mack S.J., Gong J., Sadacharam K., Lang R.S., Burke B., Fishlock K., Berman L.
Embase
Journal of Pediatric Surgery. (no pagination), 2023. Date of Publication: 2023.
[Article]
AN: 2023196792
Background: Many studies evaluating opioid stewardship interventions' effects on postoperative pain rely on emergency department (ED) visits or readmissions, but patient-reported pain scores represent a more complete picture of the postoperative experience. This study compares patient-reported pain scores after ambulatory pediatric and urologic procedures and the effect of an opioid stewardship intervention that nearly eliminated the use of outpatient narcotics.
Method(s): This is a retrospective comparative study including 3173 pediatric patients who underwent ambulatory procedures from 2015 to 2019, during which there was an intervention to reduce narcotic prescriptions. Postoperative day one phone calls assessed pain levels using a four-point scale (no pain, mild pain, moderate pain controlled with medication, or severe pain uncontrolled with medication). We quantified the proportion of patients prescribed opioids pre- versus post-intervention and compared pain scores for patients receiving opioid versus non-opioid regimens.
Result(s): Opioid prescription rates demonstrated a 6.5-fold reduction after opioid stewardship efforts. The majority of patients (2838) received non-opioids, with only 335 patients receiving opioids. Opioid patients reported moderate/severe pain slightly more than non-opioid patients (14.1% vs. 10.4%, p = 0.04). On by-procedure analyses, there were no subgroups in which non-opioid patients reported significantly higher pain scores.
Conclusion(s): Non-opioid postoperative pain regimens appear to be effective, with only 10.4% of patients reporting moderate/severe pain after ambulatory procedures. Future studies assessing patient-reported outcomes are necessary to optimize pain control for all patients and to determine whether there is ever an indication for opioid prescription after ambulatory general pediatric or urologic surgery.

Type of Study: Retrospective comparative study.
Level of Evidence: Level III.

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Publisher
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21.

Bleeding and Ketorolac Use in Pediatric Circumcision.
Lee J., Zhou E., Davis R.L., Ouyang Y., Lin H.-M., Yudkowitz F.S.
Embase
Paediatric anaesthesia. (no pagination), 2023. Date of Publication: 09 Mar 2023.
[Article]
AN: 640536973
BACKGROUND: Circumcision is a common surgical procedure performed among pediatric male patients. Ketorolac is an effective adjunct in multimodal regimens for postoperative pain control. However, many urologists and anesthesiologists refrain from administering ketorolac due to concern for postoperative bleeding. AIMS: Compare the risk of clinically significant bleeding after circumcision with and without intraoperative ketorolac administration.
METHOD(S): A single center, retrospective cohort study was conducted of pediatric patients 1-18years of age who underwent isolated circumcision by one urologist from 2016 to 2020. Clinically significant bleeding was defined as bleeding requiring intervention within the first 24 hours of circumcision. Interventions included use of absorbable hemostats, placement of sutures, or return to the operating room.
RESULT(S): Of 743 patients, 314 (42.3%) did not receive ketorolac and 429 (57.7%) received intraoperative ketorolac 0.5 mg/kg. Postoperative bleeding requiring intervention occurred in one patient (0.32%) in the non-ketorolac group versus four patients (0.93%) in the ketorolac group (Difference 0.6%, 95% CI (-0.8%, 2.0%), p=0.403).
CONCLUSION(S): There was one patient (0.32%) with postoperative bleeding requiring intervention in the non-ketorolac group versus four patients (0.93%) in the ketorolac group (Difference 0.6%, 95% CI (-0.8%, 2.0%), p=0.403). As bleeding was a rare outcome, this study was not powered to detect a statistically significant difference between the two groups. Future studies regarding the association between ketorolac and postoperative bleeding are needed.

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22.

Can pyeloplasty restore normal renal function in patients with severe unilateral ureteropelvic junction obstruction and DRF < 35 %.
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Embase
Journal of Pediatric Urology. (no pagination), 2023. Date of Publication: 2023.
[Article]
AN: 2023109548
Purpose: To assess the outcome of successful pyeloplasty in infants with Ureteropelvic Junction Obstruction (UPJO) and a differential renal function of (DRF) < 35% whether they can attain normal postoperative renal function or not.
Method(s): All children who were diagnosed with antenatal hydronephrosis due to UPJO were presented to our institutions and were prospectively followed up. Pyeloplasty was performed based on predefined indications such as: initial DRF <=40%, progression of hydronephrosis, and febrile urinary tract infection (UTI). A total of 173 children, who had successful surgical intervention due to impaired DFR, were divided according to their pre-intervention DRF value as follows: DRF <35% (group I) and DRF 35-40% (group II). The renal morphology and function changes were recorded and used for comparison between both groups.
Result(s): Group I was comprised of 79 patients, and group II included 94 patients. Pyeloplasty achieved significant improvement in the anatomical and functional indices in both groups (p-value <0.001). The degree of improvement in Anteroposterior diameter (APD) and cortical thickness was comparable in both groups (P-value, 0.64 and 0.44 respectively). While the improvement in the DRF was significantly higher in group I (16.06 +/- 6.6) than in group II (6.25 +/- 2.66) (P-value <0.001). Despite that, a significantly higher percentage of infants in group II (61.7%) achieved normal final DRF compared with only (10.1%) in group I (Figure).
Conclusion(s): Even in severely impaired renal function (<35%), successful pyeloplasty can recover a significant part of lost renal function. However, most of these patients do not achieve normal postoperative renal function.[Formula presented]

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23.

The Asia-Pacific AMS800 artificial urinary sphincter consensus statement.
Chung E., Liao L., Kim J.H., Wang Z., Kitta T., Lin A.T.-L., Lee K.-S., Ye L., Chu P., Kaiho Y., Takei M., Jiang H., Lee J., Masuda H., Tse V.
Embase
International Journal of Urology. 30(2) (pp 128-138), 2023. Date of Publication: February 2023.
[Article]
AN: 2020121621
This Asia-Pacific (AP) AMS 800TM artificial urinary sphincter (AUS) consensus statement aims to provide a set of practical recommendations to assist surgeons with the AMS 800 device surgery. The AP consensus committee consisted of key opinion leaders with extensive experience with AMS 800 surgery across several AP countries. The panel reviewed and discussed relevant findings with emphasis on locoregional and specific clinical challenges relevant to the AP region. Recommendations were made in key areas namely (1) patient selection and informed consent process; (2) preoperative assessment; (3) dealing with co-existing urological disorders; (4) surgical principles and intraoperative troubleshooting; (5) postoperative care; (6) special populations; and (7) cost analysis and comparative review. The AMS 800 device should be offered to males with moderate to severe stress urinary incontinence (SUI). Full informed consent should be undertaken, and emphasis is placed on surgical contraindications and high-risk candidates. The presence of a surgical mentor or referral to experts is recommended in complex AUS candidates. Preoperative cystoscopy with or without multichannel urodynamic study is necessary and patients with pre-existing urological disorders should be treated adequately and clinically stable before surgery. Adherence to strict patient selection and safe surgical principles are critical to ensure excellent clinical outcomes and minimize complications. Given that InhibiZone-coated device is not available in many AP countries, the use of prophylactic antibiotics pre-and post-operatively are recommended. The AMS 800 device should be prepared according to the manufacturer's guidelines and remains a cost-effective treatment for male SUI. The AMS 800 device remains the surgical benchmark for male SUI but is associated with certain mechanical limitations and a unique set of complications.

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24.

Common Inflammatory Markers and Outcome After Pediatric Cardiac Surgery With High Thoracic Epidural Anesthesia: A Randomized Controlled Study.
Kumar A., Ghotra G.S., Dwivedi D., Bhargava D.V., Joshi A., Tiwari N., Ramamurthy H.R.
Embase
World Journal for Pediatric and Congenital Heart Surgery. (no pagination), 2023. Date of Publication: 2023.
[Article]
AN: 2021799114
Background: High thoracic epidural analgesia (HTEA) plays a pivotal role in reducing stress and neuroendocrine response in cardiac surgeries.
Aim(s): The primary objective is to assess the effect of HTEA, in pediatric cardiac surgery, on inflammatory markers (interleukin [IL]-6, IL-8, and tumor necrosis factor-alpha). The secondary objectives are to assess its effect on various organ systems, that is, pulmonary (PaO2, P/F ratio), renal (Creatinine clearance, somatic near infrared spectroscopy [NIRS], serum neutrophil gelatinase-associated lipocalin values), cardiac (cardiac index, serum Trop-I, and lactate levels), mechanical ventilation duration, and length of stay in hospital (LOS).
Method(s): The study included 188 pediatric patients, who underwent, on-pump cardiac surgery randomized into the Epidural Group (n = 92) and Non-Epidural Group (n = 96). After general anesthesia, a 23 G epidural catheter was placed at the T4-5 level with a Bupivacaine infusion while the Non-epidural Group received fentanyl infusion. Blood samples were collected at four-time points, T0(preop), T1(4 h), and on the first and second postoperative days (T2 and T3).

Result(s): The inflammatory markers were reduced, while the outcomes variables of mechanical ventilation (MV) duration had lower values in the epidural group (19.5 h vs 47.3 h, P =.002). LOS was shorter (10.1 days vs 13.3 days, P =.016). pO2, PF ratio, and renal NIRS values were better in the Epidural Gp, while other parameters were comparable. Non-epidural Gp had more complications esp. Acute kidney injury requires RRT.
Conclusion(s): HTEA use in pediatric, on-pump cardiac surgery offers a favorable profile in terms of reduction in the inflammatory markers and positive effect on the organ systems with lesser MV duration and the LOS.

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25.

Comparison between modified French Ambulatory Cesarean Section (mFAUCS) to the standard cesarean technique - a randomized double blind controlled trial.
Shlomi S., Inna B., Rabia B., Amir P., Samira T., Orna C., Rami S., Lena S.-D.
Embase
American journal of obstetrics & gynecology MFM. (pp 100910), 2023. Date of Publication: 22 Feb 2023.
[Article]
AN: 640415978
BACKGROUND: The French AmbUlatory Cesarean Section (FAUCS) is a cesarean section (CS) technique which includes vertical fascial incision to the left of linea alba and extraperitoneal approach to the uterus. The presumed benefits of this technique are decreased postoperative pain and accelerated recovery. However, evidence supporting these impressions is scarce.
OBJECTIVE(S): To compare maternal recovery following FAUCS vs. standard CS technique.
STUDY DESIGN: In this double-blind randomized controlled trial, women undergoing elective CS at term were allocated into FAUCS vs. standard CS technique. A modified FAUCS operation was utilized (mFAUCS), adhering to all FAUCS operative steps except for the extraperitoneal approach. In both groups, intravenous hydration, intrathecal morphine and bladder catheter were avoided, and all women were encouraged to stand and walk 3-4 hours after the operation. The

primary adverse composite outcome included either of the following: VAS score >6 at 3-4 hours, inability to stand up and walk to the restroom 3-4 hours, and Quality of Recovery (QoR) score-15 of <90 at 24 hours. The women were followed for 6 weeks.
RESULT(S): Overall, 116 women were included in the trial (58 in each group). The adverse composite outcome did not differ between the two groups - 38.9% for mFAUCS group vs. 53.8% for regular CS cohort (p=0.172). In both groups, over 90% of the women were able to get up and walk 3-4 hours after the operation. In the mFAUCS group, longer duration of the operation was noted (54.4+/-11.3 vs. 43.7+/-11.2 minutes, p<0.001), as well as higher rate of intraoperative complications (13.8% vs. 0.0%, p=0.006), and higher rate of umbilical cord pH < 7.2 (17.2% vs. 3.4%, p=0.029). Phone-call evaluation one week following the operation showed better QoR scores in the mFAUCS group (24.6+/-8.0 vs. 27.1+/-8.4, p=0.043). Other secondary outcomes did not differ between the two groups.
CONCLUSION(S): Since excellent maternal recovery was noted in both groups, we believe that the main factor affecting this recovery is the perioperative management (including avoidance of intraoperative intravenous hydration, intrathecal morphine and bladder catheter, with early postoperative mobilization). The maternal and neonatal safety of the FAUCS operation remain to be proven by larger-scale high-quality randomized controlled trials.

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26.

Comparison of closure versus non-closure of the intraoral buccal mucosa graft site in urethroplasties. A systematic review and meta-analysis.
Guler Y.
Embase
Arab Journal of Urology. 21(1) (pp 18-30), 2023. Date of Publication: 2023.
[Review]
AN: 2018279347
Aim: To assess postoperative oral morbidity through meta-analysis of comparative studies for closure or non-closure of the buccal mucosa graft harvest area in patients undergoing urethroplasty.
Method(s): A systematic literature review was conducted in January 2022. Randomized controlled studies were assessed according to the Cochrane collaboration guidelines. Postoperative pain, difficult mouth opening, alteration of oral salivation, perioral numbness, and tolerance of solid and liquid intake results were assessed. Standard mean differences and risk ratios with 95%

confidence intervals were estimated for relative risk. Assessment was performed with subgroup analyses according to time points.
Result(s): This meta-analysis included 373 patients in 7 randomized studies. The oral pain overall pooled effect estimates were investigated for the time points of day 0-1, day 3-7 and months 1-6. According to corrected effect estimates after sensitivity analysis, at the day 0-1 time point, the non-closure group was significantly superior compared to the closure group. But there was no difference at the other time points and in total. The overall pooled effect estimates for difficult mouth opening were investigated at 4 time points (day 1, days 5-7, months 1-3 and months 6). After sensitivity analysis, the overall pooled effect estimates at 6 months were significantly superior for the non-closure group. There were no significant differences between the non-closed and closed groups based on the overall pooled-effect estimates for oral numbness, salivary secretion alteration, and tolerance of liquid and solid food variants.
Conclusion(s): The non-closure group was more advantageous in terms of oral pain in the early postoperative period. There were no differences between the groups in terms of alteration of salivation, oral numbness and toleration of liquid/solid food. Although the non-closed group seems more advantageous in terms of ease in mouth movements, more studies are needed to prove this.

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27.

Ureteral Stent Placement Prior to Definitive Stone Treatment is Associated with Higher Post-Operative Emergency Department Visits and Opioid Prescriptions for Youth Having Ureteroscopy or Shockwave Lithotripsy.
Tasian G.E., Maltenfort M.G., Rove K., Ching C.B., Ramachandra P., DeFoor B., Fernandez N., Forrest C.B., Ellison J.S.
Embase
The Journal of urology. (pp 101097JU0000000000003389), 2023. Date of Publication: 22 Feb 2023.
[Article]
AN: 640394540
BACKGROUND: Little is known about the impact of ureteral stents on youth having stone surgery. We evaluated the association of ureteral stent placement before or concurrent with ureteroscopy (URS) and shockwave lithotripsy (SWL) with emergency department (ED) visits and opioid prescriptions among pediatric patients.
METHOD(S): We conducted a retrospective cohort study of individuals aged 0-24 years who underwent URS or SWL from 2009-2021 at 6 hospitals in PEDSnet, a research network that aggregates electronic health record data from children's health systems in the United States. The exposure, primary ureteral stent placement, was defined as a stent placed concurrent with or within 60 days before URS or SWL. Associations between primary stent placement and stone-

related ED visits and opioid prescriptions within 120 days of the index procedure were evaluated with mixed-effects Poisson regression.
RESULT(S): Two-thousand ninety-three patients (60% female; median age 15 years, IQR 11-17) had 2,477 surgical episodes; 2,144 were URS and 333 were SWL. Primary stents were placed in 1,698 (79%) of URS episodes and 33 (10%) of SWL episodes. Ureteral stents were associated with a 33% higher rate of ED visits (IRR 1.33; 95% CI 1.02-1.73) and a 30% higher rate of opioid prescriptions (IRR 1.30; 95% CI 1.10-1.53). The magnitudes of both associations were greater for SWL. Results were similar for age <18 and were lost when restricted to concurrent stent placement.
CONCLUSION(S): Primary ureteral stent placement was associated with more frequent ED visits and opioid prescriptions, driven by pre-stenting. These results support elucidating situations where stents are not necessary for youth with nephrolithiasis.
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28.

Assessment of fluid balance after neonatal cardiac surgery: a description of intake/output vs. weight-based methods.
Neumayr T.M., Alten J.A., Bailly D.K., Bhat P.N., Brandewie K.L., Diddle J.W., Ghbeis M., Krawczeski C.D., Mah K.E., Raymond T.T., Reichle G., Zang H., Selewski D.T., Prodhan P., Garcia X., Ramer S., Albertson M., Gaies M., Cooper D.S., Rodriquez Z., Lukacs M., Zanaboni D., de Toledo J.S., Domnina Y.A., Saenz L., Baust T., Kluck J., Duncan L., Koch J.D., Freytag J.,

Sammons A., Abraha H., Butcher J., Sasaki J., Bertrandt R.A., Buckley J.R., Schroeder L., Raees A., Sosa L.J., Afonso N.S., O'Neal E.R., Lasa J.J., Phillips P.A., Ardisana A., Gonzalez K., Doman T., Viers S., Zhang W., Hock K.M., Borasino S., Blinder J.J.
Embase
Pediatric Nephrology. 38(4) (pp 1355-1364), 2023. Date of Publication: April 2023.
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Background: Fluid overload associates with poor outcomes after neonatal cardiac surgery, but consensus does not exist for the most clinically relevant method of measuring fluid balance (FB). While weight change-based FB (FB-W) is standard in neonatal intensive care units, weighing infants after cardiac surgery may be challenging. We aimed to identify characteristics associated with obtaining weights and to understand how intake/output-based FB (FB-IO) and FB-W compare in the early postoperative period in this population.
Method(s): Observational retrospective study of 2235 neonates undergoing cardiac surgery from 22 hospitals comprising the NEonatal and Pediatric Heart and Renal Outcomes Network (NEPHRON) database.
Result(s): Forty-five percent (n = 998) of patients were weighed on postoperative day (POD) 2, varying from 2 to 98% among centers. Odds of being weighed were lower for STAT categories 4 and 5 (OR 0.72; 95% CI 0.53-0.98), cardiopulmonary bypass (0.59; 0.42-0.83), delayed sternal closure (0.27; 0.19-0.38), prophylactic peritoneal dialysis use (0.58; 0.34-0.99), and mechanical ventilation on POD 2 (0.23; 0.16-0.33). Correlation between FB-IO and FB-W was weak for every POD 1-6 and within the entire cohort (correlation coefficient 0.15; 95% CI 0.12-0.17). FB-W measured higher than paired FB-IO (mean bias 12.5%; 95% CI 11.6-13.4%) with wide 95% limits of agreement (- 15.4-40.4%).
Conclusion(s): Weighing neonates early after cardiac surgery is uncommon, with significant practice variation among centers. Patients with increased severity of illness are less likely to be weighed. FB-W and FB-IO have weak correlation, and further study is needed to determine which cumulative FB metric most associates with adverse outcomes. Graphical abstract: A higher resolution version of the Graphical abstract is available as Supplementary information. [Figure not available: see fulltext.].

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29.

Enhanced recovery after surgery in pediatric urology: Current evidence and future practice.
Fung A.C.-H., Chu F.Y.-T., Chan I.H.-Y., Wong K.K.-Y.
Embase
Journal of Pediatric Urology. 19(1) (pp 98-106), 2023. Date of Publication: February 2023.
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AN: 2019845712
Purpose: To offer an up-to-date appraisal of the current status of enhanced recovery after surgery (ERAS) protocols in pediatric urology and to provide a guide for the clinical urologist.
Material(s) and Method(s): We performed a comprehensive literature search and scoping review on ERAS protocols in pediatric urology using Pubmed (from 1946), Cochrane library, and MEDLINE to December 2021 with the terms "enhanced recovery", "protocolised care", "post-operative protocol", "fast-track surgery" and "pediatric urology". Studies were excluded if they did not include perioperative intervention related to urological procedures, no full-text available and in non-English language.
Result(s): To date, eight clinical studies (involving 1153 patients) have been published on ERAS protocols in pediatric urology. The patients involved ranged from neonates to adolescents, and the urological procedures included bladder augmentation, the Mitrofanoff procedure, laparoscopic pyeloplasty, laparoscopic nephrectomy, hypospadias repair, etc. Multidisciplinary components such as surgical and anesthetic considerations have been employed in ERAS protocols. The length of hospital stay was significantly lower in the ERAS groups with earlier enteral feeding resumption and return of bowel function in pediatric urology patients. The implementation of ERAS protocols does not result in higher complication and readmission rates; instead, some studies have even demonstrated a significant reduction in complication occurrence.
Conclusion(s): ERAS is novel to pediatric urology with a limited scale of published data in the literature. Initial clinical studies revealed that ERAS appears to be efficacious in the field of pediatric urology. Further prospective studies formulating a standardized multimodal protocol are encouraged to better understand key components of ERAS and incorporate ERAS into clinical practice to optimize surgical outcomes for pediatric urology procedures.

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30.

Intrathecal opioids for the management of post-operative pain.
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Embase
Best Practice and Research: Clinical Anaesthesiology. (no pagination), 2023. Date of Publication: 2023.
[Review]
AN: 2022877847
Intrathecal opioids are highly effective in the management of post-operative pain. The technique is simple with a very low risk of technical failure or complications, and it does not require additional training or expensive equipment such as ultrasound machines and, therefore, is widely practised around the world. The high-quality pain relief is not associated with sensory, motor or autonomic deficits. This study focuses on intrathecal morphine (ITM) which is the only US Food and Drug Administration-approved opioid for intrathecal administration and remains the most commonly used as well as extensively studied. The use of ITM is associated with prolonged analgesia lasting 20-48 h after a variety of surgical procedures. ITM has a well-established role in thoracic, abdominal, spinal, urological and orthopaedic surgeries. It is considered the 'gold standard' analgesia technique for caesarean delivery which is generally performed under spinal anaesthesia. As the role of epidural technique in post-operative pain management continues to decrease, ITM has emerged as the neuraxial technique of choice for pain management after a major surgery as a component of multimodal analgesia in Enhanced Recovery After Surgery (ERAS) protocols. ITM is recommended by many scientific groups and societies such as ERAS, PROSPECT, the National Institute for Health and Care Excellence and the Society of Obstetric Anesthesiology and Perinatology. The doses of ITM have decreased successively; today they are a fraction of those used in the early 1980s. With these dose reductions, the risks have decreased; current evidence shows that the risk of the much-feared respiratory depression with low-dose ITM (up to 150 mcg) is no greater than that with systemic opioids used in routine clinical practice. Patients receiving low-dose ITM can be nursed in regular surgical wards. The monitoring recommendations from societies such as the European Society of Regional Anaesthesia and Pain Therapy (ESRA), the American Society of Regional Anesthesia and Pain Medicine and the American Society of Anesthesiologists need to be updated so that the requirements for extended or continuous monitoring at postoperative care units (PACUs), step-down units, high-dependency units, and intensive care units can be eliminated, thereby reducing additional costs and inconvenience and making this simple, versatile and highly effective analgesia technique available to a wider patient population in resource-limited settings.

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31.

Scrotal flap phalloplasty as temporary neophallus in infants and children with penile agenesis: Multi-institutional experience and long-term follow-up.
Cezarino B.N., Arceo R., Leslie J.A., Koyle M., Denes F.T., Prieto J.C.
Embase
Journal of Pediatric Urology. 19(1) (pp 53.e1-53.e6), 2023. Date of Publication: February 2023.
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AN: 2020808074
Introduction: Aphallia is a rare congenital disorder pertaining to genotypic males. Early surgical creation of a neophallus is recommended to reinforce the child's male gender-identity, favoring proper psychosexual development. Modern microsurgical techniques used to create a neophallus in adults are not recommended in children due to the invasiveness and complexity of the procedures, along with high complication rates. Scrotal flap phalloplasty is a simple and reproducible technique to create a temporary neophallus in prepubertal boys with aphallia.
Objective(s): We present a multi-institutional experience, ten years after the initial description of the scrotal flap phalloplasty (SFP) technique, in which a flap from the well-developed scrotum is used to build a temporary neophallus, without obvious scars in patients with aphallia. Study design: The records of surgical neophalloplasty for aphallia patients from 4 centers between 2011 and 2021 were reviewed. All patients had at least one year follow-up to assess for short and long-term complications. Age at initial operation, associated anomalies, and other related surgical procedures were analyzed.
Result(s): The post-operative aesthetic result in all patients was satisfactory and has been maintained in the long-term follow-up, with all patients presenting a cylindrical structure resembling an uncircumcised penis, without evidence of significant contraction or loss of length. (Summary Figure) Discussion: Non-microsurgical neophalloplasty techniques in patients with penile agenesis are temporary procedures that help to establish the body image and preserve the psychosexual development of the patient with aphallia. These techniques do not involve tissue transplant from a distant region, and are simpler to perform, with less scarring at the donor sites. Due to significant donor scars and considerable morbidity and complexity associated with the definitive phalloplasty techniques, we created a simple, reproducible and straightforward procedure to serve as a temporary neophallus in young boys with aphallia. As affected patients usually have a well-formed scrotum with normal and orthotopic testicles, it is the ideal donor site for a temporary neo-phallus in childhood. Furthermore, other donor sites are preserved for a definitive phalloplasty. There are limitations to this study, as quality of life could not be assessed and psychological or gender-identity investigations have not been carried out. None of these children have reached puberty, and hence decision and outcomes of definitive neophallus reconstruction has not been considered to date.
Conclusion(s): Scrotal flap phalloplasty is a minimally invasive, simple and reproducible technique used to create a temporary neophallus in boys with aphallia, while waiting for definitive reconstructive surgery after puberty.[Formula presented]

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32.

The Analgesic Effects of the Addition of Intravenous Ibuprofen to a Multimodal Analgesia Regimen for Pain Management After Pediatric Cardiac Surgery: A Randomized Controlled Study.
Abdelbaser I., Abo-Zeid M., Hayes S., Taman H.I.
Embase
Journal of Cardiothoracic and Vascular Anesthesia. 37(3) (pp 445-450), 2023. Date of Publication: March 2023.
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AN: 2022087792
Objective: Intravenous ibuprofen is used to control fever and pain. This study aimed to assess the analgesic effects of the addition of intravenous ibuprofen to a multimodal analgesia regimen for pain management after pediatric cardiac surgery.
Design(s): A randomized, controlled, double-blinded, superiority study.
Setting(s): University hospital.
Participant(s): Seventy-eight pediatric patients who underwent open cardiac surgery using midline sternotomy incision were screened for eligibility; 10 patients were excluded, leaving 68 patients (34 patients in the ibuprofen group and 34 patients in the control group) for final data analysis.
Intervention(s): Patients were randomly allocated to either the ibuprofen group, in which the patient received intravenous ibuprofen infusion of 10 mg/kg/6 hours for 24 hours, or the control group, in which the patient received a placebo 0.9% saline.
Measurements and Main Results: The primary endpoint was the 24-hour postoperative fentanyl consumption, and the secondary endpoints were postoperative modified objective pain score and the incidence of ibuprofen-related side effects (eg, vomiting, epigastric pain, bleeding, and renal dysfunction). The mean total fentanyl consumption (mug/kg) during the first postoperative 24 hours after extubation was significantly lower ($p<0.001$) in the ibuprofen group (3.5 +/- 1.3) than the control group (5.1 +/- 1.4). The median postoperative modified objective pain score was significantly lower ($p < 0.05$) in the ibuprofen group than the control group at 0 hours, 2 hours, 12 hours, 16 hours, 20 hours, and 24 hours postoperatively. Ibuprofen did not cause significant increases in the incidences of bleeding, epigastric pain, and vomiting. Postoperative renal dysfunction was not reported in any patient.
Conclusion(s): The addition of intravenous ibuprofen to a multimodal analgesia regimen for pain management after pediatric cardiac surgery improved postoperative analgesia in terms of reduction of opioid consumption and pain scores.

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33.

What we know and what we don't know about the perioperative use of methadone in children and adolescents.
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Embase
Paediatric Anaesthesia. 33(3) (pp 185-192), 2023. Date of Publication: March 2023.
[Article]
AN: 2020079927
Postoperative pain control is essential to optimizing patient outcomes, improving satisfaction, and allowing patients to resume their baseline functional activities. Methadone, a synthetic mu-opioid agonist, has multiple pharmacologic properties that may be optimal for perioperative use. Compared to other opioids, methadone has a longer duration of action, rapid onset, extended dosing intervals, high oral bioavailability, low cost, lack of active metabolites, and action on multiple receptors. The current literature examining the use of methadone in the perioperative care of children and adolescents is limited and most often reported within the context of spine or cardiothoracic surgery. Overall, these studies support the hypothesis that perioperative methadone in pediatric patients may decrease postoperative pain, opioid consumption, length-of-stay, and the incidence of some opioid-related side effects, like constipation and urinary retention. A variety of protocols for the perioperative use of methadone have been described, including a single intraoperative dose as well as multiple small doses within multimodal pain protocols. The superiority of these protocols has not been established. Like all opioids, methadone has a side effect profile which includes nausea, vomiting, reduced GI motility, sedation, and respiratory depression at high doses. There is also a concern that it can cause QTc prolongation in patients. The primary aim of this educational review is to examine the pharmacologic data, published perioperative protocols, dosing considerations, and risks and benefits associated with inclusion of methadone in analgesic regimens for surgical patients. A secondary aim is to introduce opportunities for research around the perioperative use of methadone in children and adolescents. Based on our review, we would prioritize establishing optimal procedure-specific methadone protocols, determining generalizability for use in routine pediatric surgeries, and investigating methadone safety and efficacy prospectively as the primary opioid for pain management in the postanesthesia care unit or postsurgical floors.

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34.

Anesthesia and pain management of pediatric cytoreductive surgery with hyperthermic intraperitoneal chemotherapy.
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Embase
Paediatric Anaesthesia. 33(3) (pp 193-200), 2023. Date of Publication: March 2023.
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AN: 2018987377
Background: Cytoreductive surgery with hyperthermic intraperitoneal chemotherapy has shown to improve survival in patients with extensive or refractory abdominal tumors of many different histologies. Postoperative pain control can be challenging as the surgical procedure is performed through a midline laparotomy incision from xiphoid to symphysis pubis, and patients are usually nothing by mouth for the first 8-10 postoperative days.
Aim(s): We present the anesthetic management and postoperative pain control strategies for cytoreductive surgery with hyperthermic intraperitoneal chemotherapy using a multimodal, opioid-sparing, and total intravenous anesthetic technique with a tunneled thoracic epidural.
Method(s): A single institution retrospective review of anesthetic management, intraoperative fluid and blood administration, and postoperative pain control for pediatric patients undergoing cytoreductive surgery with hyperthermic intraperitoneal chemotherapy between July 2018 and December 2020 was conducted. We employed a novel anesthetic and analgesia protocol consisting of premedication with gabapentin followed by intraoperative infusions of propofol, dexmedetomidine, ketamine, and cisatracurium. A tunneled thoracic epidural catheter was placed for management of pain.
Result(s): We reviewed and analyzed the first 25 patient records. The most common diagnosis was desmoplastic small round cell tumor (n = 12). Median age of patients was 14 years (range 21 months-22 years). All patients were extubated in the operating room and no patients required reintubation. There were no incidences of acute kidney injury. Epidural infusions were used for a median of 8 days (range 2-14 days). Median postoperative intravenous opioid use (morphine equivalent) through postoperative day 10 was 0.02 mg/kg/day (range 0-0.86 mg/kg/day) administered for a median of 2 days (range 0-17 days). Nine patients (36%) did not require any intravenous opioids in the postoperative period.
Conclusion(s): Utilizing a multimodal, opioid-sparing, total intravenous anesthetic technique in conjunction with a tunneled thoracic epidural catheter, we were able to avoid the need for postoperative mechanical ventilation and minimize both intraoperative and postoperative opioid requirements.

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35.

Current Indications for Robotic Surgery in Pediatric Urology.
FitzGibbon T., Daugherty M.
Embase
Current Treatment Options in Pediatrics. 9(1) (pp 11-22), 2023. Date of Publication: March 2023. [Review]
AN: 2021303169
Purpose of review: Over the last decade, the use of the robotic surgical system has significantly increased in the pediatric population and new indications for the robot are being developed. We aim to explore the current indications for robotic urologic surgery in children. Recent findings: Robotic surgeries in urology has been found to have similar outcomes to equivalent open surgeries while also providing decreased post-operative length of hospitalization and post-operative narcotic usage. Recent results suggest that robotic incisions do not grow significantly as patients grow and may have better cosmetic outcomes in the long term. Robotic pyeloplasty and extravesical ureteral reimplantation have shown to have excellent results, including in complicated and re-operative cases. Urologic reconstruction techniques are described using the robotic surgical system as well with promising early results though techniques are still developing. Overall, robotic surgery is generally more expensive than open surgery.
Summary: Robotic surgery in urology has many indications, including pyeloplasty, ureteral reimplantation, nephrectomy or partial nephrectomy, oncology, and reconstruction for neurogenic bowel and bladder. The use of the robotic system is safe and effective for these procedures with similar outcomes and operative metrics to open surgeries while conferring the advantage of decreased length of post-operative hospitalization and decreased post-operative narcotic usage.

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Publisher
Springer Science and Business Media Deutschland GmbH
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36.

Laparoscopic versus Open Inguinal Hernia Repair Is Feasible in Infants with Caudal Anesthesia and Spontaneous Respiration.

Kiblawi R., Beck C., Keil O., Schukfeh N., Hofmann A.D., Ure B.M., Kuebler J.F.
Embase
European Journal of Pediatric Surgery. 33(1) (pp 26-34), 2023. Date of Publication: February 2023.
[Article]
AN: 2020875658
Introduction Minimally invasive surgery (i.e., laparoscopy) and minimally invasive anesthesia (i.e., caudal anesthesia with spontaneous respiration) have separately shown benefits for inguinal hernia repair in infants, yet to what degree these techniques can be combined remains unknown. This study investigated whether laparoscopy impacts the feasibility of performing caudal anesthesia with spontaneous respiration in infants. Methods Prospectively collected data of all infants less than 12 months old and over 3 kg weight who underwent laparoscopic indirect hernia repair (LAP) at our department from 2019 to 2021 were compared with a historical control-matched group of infants who underwent open repair (OPEN) from 2017 to 2021. We assessed the patients' characteristics, anesthesia, and surgical data as well as intra- and postoperative complications. Results A total of 87 infants were included (LAP n = 29, OPEN n = 58). Caudal anesthesia with spontaneous respiration was feasible in 62.1% of cases (LAP n = 55.2%, OPEN n = 65.5%; nonsignificant). Neither group registered anesthetic intra- or postoperative complications. Sedatives were utilized in 97% of LAP patients versus 56.9% of OPEN patients (p < 0.00001). The airway was secured with a laryngeal mask in 89.7% of patients during LAP versus 41.4% during OPEN (p < 0.00001). No significant differences were found regarding the use frequency of opioids (48.3% LAP vs. 34.5% OPEN; nonsignificant) or neuromuscular blockers (6.9% LAP vs. 5.2% OPEN; nonsignificant). Conclusion This is the first comparative study on caudal anesthesia and spontaneous respiration in infants undergoing laparoscopic versus open inguinal hernia surgery. Laparoscopy increased the need for ventilatory support and sedatives but did not significantly impair the feasibility of caudal anesthesia and spontaneous respiration.

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Publisher
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37.

Perioperative fluid management and associated complications in children receiving kidney transplants in the UK.
Wyatt N., Norman K., Ryan K., Shenoy M., Malina M., Weerassoriya L., Merritt J., Balasubramanian R., Hayes W.

Embase
Pediatric Nephrology. 38(4) (pp 1299-1307), 2023. Date of Publication: April 2023.
[Article]
AN: 2018668578
Background: Intravenous fluid administration is an essential part of perioperative care for children receiving a kidney transplant. There is a paucity of evidence to guide optimal perioperative fluid management. This study aimed to identify the volume of perioperative fluids administered across 5 UK paediatric kidney transplant centres and explore associations between fluid volume administered, graft function, and fluid-related adverse events.
Method(s): Data were collected from five UK paediatric kidney transplant centres on perioperative fluid volumes administered, and incidence of pulmonary oedema, systemic hypertension, and requirement for intensive care support. Children < 18 years of age who received a kidney-only transplant between 1st January 2020 and 31st December 2021 were included.
Result(s): Complete data from 102 children were analysed. The median total volume of fluid administered in 72 h was 377 ml/kg (IQR 149 ml/kg) with a high degree of variability. A negative relationship between total fluid volume administered and day 7 eGFR was noted ($p < 0.001$). Association between urine volume post-transplant and day 7 eGFR was also negative ($p < 0.001$). Adverse events were frequent but no significant difference was found in the fluid volume administered to those who developed an adverse event, vs those who did not.
Conclusion(s): This study describes a high degree of variability in perioperative fluid volumes administered to children receiving kidney transplants. Both fluid volume and urine output were negatively associated with short-term graft function. These data contrast traditional interpretation of high urine output as a marker of graft health, and highlight the need for prospective clinical trials to optimise perioperative fluid administration for this group. Graphical Abstract: A higher resolution version of the Graphical abstract is available as Supplementary information [Figure not available: see fulltext.]

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38.

Laparoscopic versus robot-assisted pyeloplasty in infants and young children.
Sun L., Zhao D., Shen Y., Tang D., Chen G., Zhu L., Yang Y., Tao C.
Embase
Asian journal of surgery. 46(2) (pp 868-873), 2023. Date of Publication: 01 Feb 2023.
[Article]
AN: 639190098
OBJECTIVE: To compare the characteristics of conventional laparoscopic pyeloplasty (LP) and robotic-assisted laparoscopic pyeloplasty (RALP) in infants and young children with ureteropelvic junction obstruction (UPJO).
METHOD(S): We performed a retrospective study of patients (age: 0-36 months) who underwent dismembered pyeloplasty (Anderson-Hynes) with the fourth-generation RALP or traditional LP between April 2020 and December 2020.
RESULT(S): A total of 33 patients with UPJO were enrolled: 12 underwent RALP (9 left side; 3 right side) and 21 underwent LP (18 left side; 3 right side). In the RALP group, the median patient age was 17 months (range: 5-36 months). In the LP group, the median patient age was 9 months (range: 2-36 months) (P = 0.182). The mean operation times were 120.25 +/- 37.54 min (RALP) and 156.10 +/- 51.11 min (LP) (P = 0.042), and the mean lengths of hospital stay were 6.42 +/- 1.62 days (RALP) and 8.19 +/- 2.25 days (LP) (P = 0.023). Removal of the drainage tube was performed after 3.08 +/- 0.69 days (RALP) and after 4.76 +/- 1.81 days (LP) (P = 0.001). The postoperative pain showed no significant difference. The mean hospitalization costs were 61464.75 +/- 2800.53 yuan (RALP) and 22169.52 +/- 3442.15 yuan (LP) (P < 0.001). The mean follow-up time was 10-18 months. Significant improvements in the anteroposterior diameter and parenchymal thickness were observed after surgery. Conversion to laparotomy was not performed. No short-term complications occurred during postoperative hospitalization and follow-up.
CONCLUSION(S): RALP has the advantages of less trauma and faster recovery. It can be safely and effectively performed in infants and young children, and its effectiveness is similar to that of traditional LP.

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Publisher
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39.

Comparative Study of Laparoscopic versus Open Pyeloplasty in the Management of Primary Uretero-Pelvic Junction Obstruction.
Manohar G., Shitiri A., Panda A.P., Manogna G.
Embase

International Journal of Pharmaceutical and Clinical Research. 15(1) (pp 215-226), 2023. Date of Publication: 2023.
[Article]
AN: 2019114668
Pelvi-ureteric junction obstruction (PUJO) is a functional or anatomic obstruction of urine flow from the renal pelvis into the ureter. The causes of PUJO are congenital, acquired, intrinsic and extrinsic. Pelvi-ureteric junction obstruction ultimately will lead to hydronephrosis which can progress to permanent renal impairment. The standard procedure to relieve obstruction is open, laparoscopic or robotic pyeloplasty. In our study 30 patients with primary PUJO were randomised into two groups of 15 each using a computer-generated randomised table. Anderson Hynes Open pyeloplasty was performed on 15 patients, and laparoscopic pyeloplasty was performed on 15 patients. Both procedures were compared for efficacy in terms of subjective outcomes (post-operative pain, activity level) and objective outcomes (operative time, complications, recovery time/hospital stay, improvement in renal function, cosmesis, success rate). Standard inclusion and exclusion criteria were followed. Laparoscopic pyeloplasty has a comparable success rate to open pyeloplasty and is an effective minimally invasive treatment option for PUJ obstruction. Laparoscopic pyeloplasty is emerging as the new standard of care for PUJ obstruction.

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Publisher
Dr Yashwant Research Labs Pvt Ltd
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40.

Opioids and pediatric urology: A prospective study evaluating prescribing habits and patient postoperative pain and narcotic utilization.
Lence T., Thinnes R., Foster A.J., Cooper C.C., Lockwood G., Eyck P.T., Rye Z., Wu C., Juhr D., Storm D.W.
Embase
Journal of Pediatric Urology. (no pagination), 2023. Date of Publication: 2023.
[Article]
AN: 2022454130
Introduction: Few pediatric urologists believe patients require a majority of the doses of opioids prescribed to them postoperatively. Seeking a better understanding of postoperative pain and analgesia in pediatric urology patients may help reduce opioid over prescription while still adequately managing postoperative pain.
Objective(s): We sought to better understand: 1) the postoperative pain levels experienced by pediatric urology patients, 2) the factors that correlate with postoperative pain and number of opioids consumed following pediatric urologic procedures, and 3) the patients who do not require opioids after surgery. Study design: Pediatric patients undergoing circumcision, inguinal hernia repair, orchidopexy, or hypospadias repair were eligible to participate. Patients were enrolled in the prospective cohort on the day of the procedure. For each of the first 7 postoperative days, patients' parents completed a text message-based questionnaire, quantifying their child's pain level and the doses of pain medication the child consumed.

Result(s): 165 participants were enrolled. 57 patients underwent circumcision, 54 underwent orchiopexy, 32 underwent hypospadias repair, and 22 underwent inguinal hernia repair. For all procedure types, pain scores ($p < 0.01$) and doses of oxycodone consumed were highest on postoperative day one and steadily declined thereafter. Overall, average 7-day pain score (2.02; 0.86-5.14) and doses of narcotics consumed (3.50; 0-5) were low. Patients in each surgical subgroup were prescribed narcotics in excess of what was consumed. There was an average excess of 10.9 doses (0-39.0) for hypospadias repair, 8.6 (1.0-30.0) for circumcision, 9.0 (3.0-21.0) for inguinal hernia repair, and 6.1 (0-22.0) for orchiopexy.
Discussion(s): Overall, reported pain scores and number of narcotics consumed were low regardless of surgery type. Opioids were overprescribed regardless of surgery type.
Conclusion(s): Our findings indicate that level of pain and opioid use varies by procedure type, but that number of narcotics prescribed greatly exceeds number needed.[Formula presented]

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41.

Caudal Block versus Wound Infiltration for Inguinal Procedures in Young Children: A Randomized Clinical Study.
Zundel S., Conz F., Fuchs J., Blumenstock G., Guerrero-Rodrigues A., Grasshoff C., Schlisio B.
Embase
European journal of pediatric surgery : official journal of Austrian Association of Pediatric Surgery ... [et al] = Zeitschrift fur Kinderchirurgie. (no pagination), 2023. Date of Publication: 31 Jan 2023.
[Article]
AN: 640225891
INTRODUCTION: Inguinal procedures in children are frequent and typically performed in an outpatient setting. We aimed to analyze whether there is a difference in postoperative pain scores and setup time (start of anesthesia management to incision time) when comparing caudal block (CB) with local wound infiltration. MATERIALS AND METHODS: We enrolled pediatric outpatients scheduled for inguinal procedures. Patients were randomized to receive either preincision CBs or end-of-procedure local wound infiltration. Postoperative pain scores until 24hours postoperatively and setup time were analyzed.
RESULT(S): Fifty-two patients were included in the study. Thirty patients received a CB, and 22 patients received local infiltration (LI). There was no significant difference in postoperative pain scores. Setup time was significantly higher in the CB group: median 22.5 minutes IQR (16-46 minutes) compared with 17 minutes in the LI group IQR (10-35 minutes), p-value of 0.0026.
CONCLUSION(S): Both CB and LI result in good postoperative pain control after inguinal procedures in pediatric outpatients. Since LI is less time consuming and has lower risks for

complications, we recommend this technique for inguinal procedures in pediatric outpatients. Our findings will need to be confirmed in larger cohorts, but we believe the evidence generated with this study has the potential to positively influence patient care, operating room efficiency, and costs.

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Article-in-Press
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42.

Low Dose Bupivacaine (0.25%) with Fentanyl vs Ropivacaine (0.25%) with Fentanyl for Caudal Analgesia in Paediatric Patients: A Randomised Clinical Study.
Rekhi B.K., Kumar P., Mishra K., Singh M., Gandhi G.S.
Embase
Journal of Clinical and Diagnostic Research. 17(1) (pp UC01-UC04), 2023. Date of Publication: January 2023.
[Article]
AN: 2022034385
Introduction: Caudal epidural block is one of the most common regional techniques in paediatric anaesthesia for infraumbilical surgeries. Though bupivacaine is widely used because of its long duration, ropivacaine is a newly emerging drug having differential neuraxial blockade with less motor block and reduced cardiovascular and Central Nervous System (CNS) toxicity. To further increase the duration and quality various adjuvants have been added.
Aim(s): To compare low dose bupivacaine-fentanyl with ropivacaine-fentanyl in terms of hemodynamic stability, duration of analgesia, postoperative pain, level of sedation, and side-effects profile among patients undergoing infraumbilical surgery.
Material(s) and Method(s): A double-blind, randomised study was conducted on 60 children undergoing elective infraumbilical surgery. Patients were randomly divided into two groups of 30 each into Bupivacaine-Fentanyl (BF) group and Ropivacaine-Fentanyl (RF) group, using a simple envelope method. After securing airway, caudal block was given. Group BF received 0.25% bupivacaine 0.5 mL/kg with fentanyl 0.5 mcg/kg and Group RF received 0.25% ropivacaine 0.5 mL/kg with fentanyl 0.5 mcg/kg. Postoperative pain was assessed using the Face, Legs, Activity, Cry, Consolability (FLACC) pain assessment scale, for 12 hours. The hemodynamics, duration of analgesia, rescue analgesia requirement and side effects (bradycardia, hypotension, respiratory depression, retching, urinary retention, vomiting) were noted and analysed statistically.
Result(s): The mean duration of analgesia in the BF group was 270+/-46.60 minutes and in the RF group was 430+/-68.83 minutes (p-value <0.001). Patients requiring rescue analgesia were 12 in Group BF and 5 in Group RF. Mean FLACC reached >=4 at 4.5 hours in group BF and at 7 hours in group RF. There was no significant difference in hemodynamics and side-effects profile

(bradycardia, hypotension, respiratory depression, retching, urinary retention, vomiting) between the two groups.
Conclusion(s): Low dose caudal ropivacaine-fentanyl combination is superior to that of caudal bupivacaine-fentanyl with respect to duration and intensity of intraoperative and postoperative analgesia.

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Embase
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43.

A STUDY COMPARING CAUDAL BLOCK AND PENILE BLOCK USING ROPIVACAINE FOR POST OPERATIVE ANALGESIA IN PEDIATRIC PATIENT POSTED FOR CIRCUMCISION".
Jayakar S., Aravindaraghavan E., Satvika P.
Embase
European Journal of Molecular and Clinical Medicine. 10(1) (pp 2112-2120), 2023. Date of Publication: December 2023.
[Article]
AN: 2022248330
Introduction: Circumcision is a painful procedure in children for which various methods are being used for pain relief. The aim of this study was to compare caudal block and penile block using ropivacaine for post-operative analgesia in paediatric patient posted for circumcision. Methods and Materials: It was a prospective, randomised, double blinded study over a period of 6 months in 40 male patients, age between 1-7 years. The patients were divided in to two groups 20 each. GROUP C received caudal block with 0.2ml/kg of 0.25% ropivacaine by 23-G 11/2 needle through sacral hiatus. GROUP P received penile block with 0.2ml/kg of 0.25% ropivacaine by 23G needle. The postoperative pain was evaluated by FLACC (Face, Legs, Activity, Crying and Consolability) pain Scale. The patient's Postoperative pain was recorded using emergence numerical pain score on a scale of 0-10: The Facial expression, Leg activity, Crying and Consolability and on Visual Analogue Scale (VAS) score.
Result(s): We found that the mean pulse rate in Group C was less than Group P which was statistically significant at 4, 8, 24 hours. But the changes were not clinically significant. It was found that the mean VAS Scores were on lower side in Group C when compared to Group P. The mean VAS Score ranged from 2.5 to 4.75 in Group C and 3.4 to 5.45 in Group P.
Conclusion(s): We have demonstrated that although penile block is a safe and effective method of providing post-circumcision analgesia, Caudal block is superior in terms of its reliability, prolonged duration of action and in reducing post-operative pain score.

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Publisher

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44.

Comparison of subcutaneous analgesic system and epidural analgesia for postoperative pain control in open pediatric oncology operations: A randomized controlled trial.
Mehl S.C., Johnson B., Patel N., Todd H., Vasudevan S., Nuchtern J., Naik-Mathuria B.
Embase
Journal of Pediatric Surgery. 58(1) (pp 153-160), 2023. Date of Publication: January 2023.
[Article]
AN: 2020851619
Purpose: Children undergoing open oncologic surgery can have significant post-operative pain. The purpose of this trial was to compare a surgeon-placed subcutaneous analgesic system (SAS) to epidural analgesia.
Method(s): Single center randomized controlled trial including children <=18 years undergoing open tumor resection between October 2018 and April 2021. Randomization to SAS or epidural was done preoperatively and perioperative pain management was standardized. Families were blinded to the modality. Comparisons of oral morphine equivalents (OME) and pain scores for three postoperative days, clinical outcome parameters, and parental satisfaction following unblinding were completed using non-parametric analyses.
Result(s): Of 36 patients (SAS 18, Epidural 18), median age was 5 years (range <1-17). The Epidural cohort had less OME demand on postoperative day one (SAS 0.76 mg/kg, Epidural 0.11 mg/kg; p<0.01) and two (SAS 0.48 mg/kg, Epidural 0.07 mg/kg, p = 0.03). Pain scores were similar on postoperative days 1-3 (0-2 in both groups). The Epidural cohort had more device complications (SAS 11%, Epidural 50%; p = 0.03) and higher urinary catheter use (SAS 50%, Epidural 89%; p = 0.03). More than 80% of parents would use the same device in the future (SAS 100%, Epidural 84%, p = 0.23).
Conclusion(s): For children undergoing open oncologic abdominal or thoracic surgery, early post-operative pain control appears to be better with epidural analgesia; however, SAS has decreased incidence of device complications and urinary catheter use. Parental satisfaction is excellent with both modalities. SAS could be considered as an alternative to epidural, especially in settings when epidural placement is not available or contraindicated.
Type of Study: Treatment study, Randomized controlled trial.
Level of Evidence: Level 1.

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45.

Comparative analysis on the outcomes in circumcising children using modified Chinese ShangRing and conventional surgical circumcision.
Zhang Q., Gao L., Liu D., Song G., Gao P., Zhang S., Zhang J., Han D., Xu Y.
Embase
Pediatric Surgery International. 39(1) (no pagination), 2023. Article Number: 59. Date of Publication: December 2023.
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AN: 2020820647
Objective: To compare the differences and outcomes of surgical procedures, clinical effect, complications and patients' satisfaction between disposable oval-shaped circumcision device (Modified Chinese ShangRing series, Kiddie love) and conventional circumcision in the treatment of children with phimosis or redundant prepuce.
Method(s): The clinical data were retrospectively analyzed in 114 children with phimosis or redundant foreskin undergone circumcision using a disposable oval-shaped circumcision device, a modified Chinese ShangRing series, Kiddie Love (Kiddie Love group) in our hospital between January 2018 and February 2020, and another 114 children with similar conditions circumcised by conventional surgical procedure before January 2018 (conventional group). The two groups were compared regarding the operative time, intraoperative blood loss, postoperative pain scores, healing time, the incidence of complications and guardian's satisfaction.
Result(s): Circumcision was successfully completed in children in both groups. The operative time, intraoperative blood loss, postoperative pain scoring in 24 h by VAS, pain at the removal of the device or stitches and wound healing were (6.4 +/- 1.6) min, (34.1 +/- 6.4) min; (0.7 +/- 0.2) ml, (2.6 +/- 0.6) ml; (2.2 +/- 1.0) points, (1.3 +/- 0.5) points; (23.7 +/- 3.9)day, (15.9 +/- 2.8)day, respectively for Kiddie Love group and conventional group(either $P < 0.05$ or $P > 0.05$). The two groups were significantly different in the incidence of hematoma, edema and incision dehiscenceyet were insignificant in incision infection. Children in both groups were followed up from 6 to 31 months (mean: 23 months), and the satisfaction rate was 94.7% (108/114) in parents of the children circumcised by the ShangRing and 83.3% (95/114) in those of children treated by conventional circumcision ($P < 0.05$).
Conclusion(s): Modified Chinese ShangRing, Kiddie Love, has superiorities, including simpler procedure, shorter operative time, less blood loss, fewer complications, better cosmetic results and higher satisfaction of patients over conventional circumcision in the treatment of children with phimosis or redundant foreskin, and worthy of wider clinical recommendation.

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Year of Publication
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46.

European Enhanced Recovery After Surgery (ERAS) gynecologic oncology survey: Status of ERAS protocol implementation across Europe.
Gomez-Hidalgo N.R., Pletnev A., Razumova Z., Bizzarri N., Selcuk I., Theofanakis C., Zalewski K., Nikolova T., Lanner M., Kacperczyk-Bartnik J., El Hajj H., Perez-Benavente A., Nelson G., Gil-Moreno A., Fotopoulou C., Sanchez-Iglesias J.L.
Embase
International Journal of Gynecology and Obstetrics. 160(1) (pp 306-312), 2023. Date of Publication: January 2023.
[Article]
AN: 2018718944
Objective: To acquire a comprehensive assessment of the current status of implementation of Enhanced Recovery After Surgery (ERAS) protocols across Europe.
Method(s): The survey was launched by The European Network of Young Gynecologic Oncologists (ENYGO). A 45-item survey was disseminated online through the European Society of Gynecological Oncology (ESGO) Network database.
Result(s): A total of 116 ESGO centers participated in the survey between December 2020 and June 2021. Overall, 80 (70%) centers reported that ERAS was implemented at their institution: 63% reported a length of stay (LOS) for advanced ovarian cancer surgery between 5 and 7 days; 57 (81%) centers reported a LOS between 2 and 4 days in patients who underwent an early-stage gynecologic cancer surgery. The ERAS items with high reported compliance (>75% "normally-always") included deep vein thrombosis prophylaxis (89%), antibiotic prophylaxis (79%), prevention of hypothermia (55%), and early mobilization (55%). The ERAS items that were poorly adhered to (less than 50%) included early removal of urinary catheter (33%), and avoidance of drains (25%).
Conclusion(s): This survey shows broad implementation of ERAS protocols across Europe; however, a wide variation in adherence to the various ERAS protocol items was reported.

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47.

Postoperative Urinary Catheterization in Children Treated with or without Epidural Analgesia after Orthopedic Surgery: A Retrospective Review of Practice.
Lior Y, Haim S, Katz I, Danino B, Bar-Yosef Y, Ekstein M
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Children. 9(9), 2022 Aug 29.
[Journal Article]
UI: 36138625
Epidural analgesia is effective and an accepted treatment for postoperative pain. Urinary retention is a known complication, but its description is mostly in the adult literature. Management of urinary catheter (UC) placement and removal is an important consideration in children receiving epidural analgesia. This is a single-center, retrospective observational study which examined UC management in children undergoing lower extremity orthopedic surgery under general anesthesia with or without epidural analgesia from January 2019-June 2021. Of 239 children included, epidural analgesia was used in 57 (23.8%). They were significantly younger and had more co-morbidities. In total, 75 UCs were placed in the OR, 9 in the ward, and 7 re-inserted. UC placement in the epidural group was more common (93% vs. 17%, $p < 0.001$) and remained longer (3 days vs. 1 day, $p = 0.01$). Among children without intra-operative UC, ward placement was more common in the epidural cohort (60% vs. 1.6%, $p = 0.007$). OR UC placement and ward re-insertion were more common in children with neuromuscular disease (61% vs. 22%, $p < 0.001$), (17% vs. 3%, $p = 0.001$), respectively. Based on these findings, we hypothesize that it is justifiable to routinely place a UC intra-operatively in children who undergo hip or lower extremity surgery and are treated with epidural analgesia, and caution is advised before early UC removal in orthopedic children with NMD.
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1
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48.

Caudal Morphine in Pediatric Patients: A Comparison of Two Different Doses in Children Undergoing Infraumbilical Surgery - A Prospective, Randomized, Double-Blind Study.
Das S, Acharya R, Patro M, Moda N, Mounika G
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Anesthesia: Essays and Researches. 16(3):360-365, 2022 Jul-Sep.
[Journal Article]
UI: 36620099
Background: One of the most feared symptoms of any disease is PAIN. It is a complex phenomenal experience, especially in children. Various methods and medications have been administered through different routes. Regional anesthesia produces marvelous postoperative analgesia and cessation of stress response in infants and children. Caudal epidural analgesia is the most acceptable and popular method of providing intra- and postoperative analgesia for abdominal, perineal, and lower limb surgeries in children. The use of preservative-free morphine as an adjunct to ropivacaine increases the quality and duration of analgesia despite the various side effects. Various articles use various doses of morphine as an adjuvant in caudal epidural analgesia. Hence, we conducted the study to compare the two dosages of morphine that is 20 mug.kg-1 and 30 mug.kg-1 of caudal epidural morphine for infraumblical surgeries with regard to its efficacy and safety and side effect profiles.
Materials and Methods: The study is a prospective, randomized, double-blinded study. Sixty patients were divided into two groups. Group A: 20 mug.kg-1 of morphine was added to 0.2% ropivacaine 1 mL.kg-1 and the solution was made. Group B: 30 mug.kg-1 of morphine was added to 1 mL.kg-1 of 0.2% ropivacaine. Heart rate, systolic blood pressure, diastolic blood pressure, SPO2, pain score, and sedation score were recorded immediately, after 15 min, 30 min, 45 min, 1 h, 2 h, 4 h, 8 h, 12 h, 16 h, 18 h, and 24 h were recorded.
Results: The mean duration of analgesia is similar in both groups (P = 0.011). The mean duration was 20.517 +/- 1.9143 h in Group A and 22.233 +/- 1.6853 h in Group B. Children with the requirement of one dose of rescue analgesia in Group A was 83.3% which was higher than Group B being 66.7%. Children with no analgesic requirement were 16.7% in Group A and 33.3% in Group B. The incidence of side effects was more in Group B (8 [26.7%] children with nausea

and vomiting; 1 [3.3%] children with urinary retention) than in Group A (2 [6.6%] children with nausea and vomiting.
Conclusion: From the above observations, it can be concluded that morphine of less dosage (20 mug.kg-1) when added to 0.2% ropivacaine for the caudal epidural block has better efficacy than morphine of higher dosage (30 mug.kg-1) as the duration of analgesia is similar with decreased incidence of side effects.

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1
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49.

Pediatric Groin Surgeries: A Comparison of Analgesic Effects of Caudal Block and Inguinal Field Block Using Plain Bupivacaine.
Kalu UA, Odi TO, Taiwo JO, Abdur-Rahman LO, Oyewole EO, Ibiyeye TT
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Journal of the West African Colleges of Surgeons. 12(3):96-103, 2022 Jul-Sep.
[Journal Article]
UI: 36388745
Introduction: There is a paucity of studies in the West African sub-region which have compared both the intraoperative and postoperative analgesic effects of caudal block and inguinal field block using plain bupivacaine in groin surgeries in children. The study aimed to compare the duration of analgesia and complications of caudal block and inguinal field block in pediatric groin surgeries.
Patients and Methods: This was a prospective, double-blind randomized study conducted at a tertiary health institution in North Central, Nigeria, over a period of 6 months. A total of 74 children scheduled for day case groin surgeries for inguinal hernia, hydrocoele and palpable undescended testis were recruited into the study. The effectiveness of the analgesic effect was assessed by measuring serum cortisol levels before surgery (i.e. baseline at 8am), 5minutes after caudal block or inguinal field block, and 1-hour after surgery. Post-operative pain was determined using FLACC score (Face, Legs, Activity, Crying and Consolability) every 15 minutes till 6 hours after surgery when the patients were discharged home and the caregivers measured the patients' pain scores using the FLACC score every 1 hour to a maximum duration of 10 hours after surgery.

Data obtained from the study was entered into the study proforma and analysed using IBM SPSS version 21.0. The P value was considered statistically significant at <0.05.
Results: A total of 74 patients were recruited for this study, with 68 males (91.9%) and 6 females (8.1%). The children's age range was 6 months to 7 years, with a mean age of 3.35 +/- 1.90 years. The mean basal serum cortisol levels of the caudal block group and inguinal block group were 11.15 +/- 5.38 microg/dL and 10.79 +/- 4.92microg/d respectively (p-value = 0.767). Five minutes after caudal block, the mean serum cortisol level was 10.50 +/- 5.39microg/dL while inguinal field block was 10.63 +/- 4.68microg/dL (p-value = 0.288). The mean serum cortisol level obtained one hour after each procedure was 9.34 +/- 4.05 microg/dL for the caudal block group and 10.00 +/- 3.56 microg/dL in the inguinal field block group with p-value = 0.275.Using the FLACC score, the mean duration of analgesia in caudal block group was 372.00 +/- 71.55 minutes and was inguinal field block group was 387.43 +/- 62.65 minutes with a p-value = 0.116. There was no anaesthetic technique related complications that was recorded in both caudal block group and inguinal group during the study period.
Conclusion: This study demonstrated that caudal block and inguinal field block using plain bupivacaine provided comparable duration of analgesia in paediatric groin surgeries. Therefore, caudal block or inguinal field block using plain bupivacaine should be recommended for both intraoperative and postoperative analgesia in elective paediatric groin surgeries.

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1
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50.

Opioids in Urology: How Well Are We Preventing Opioid Dependence and How Can We Do Better?.
Anderson DJ, Cao DY, Zhou J, McDonald M, Razzak AN, Hasoon J, Viswanath O, Kaye AD, Urits I
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Health Psychology Research. 10(3):38243, 2022.
[Journal Article]
UI: 36118983
Urologic procedures (both open and minimally invasive) can cause pain due to the surgery itself, devices placed, and post-operative issues. Thus, pain management is important for every post-

procedure recovery period. Opioid use post-surgery is common and often over-prescribed contributing to persistent use by patients. In this article, we review the extent of opioid use in pediatric urologic procedures, vasectomy, endourologic procedures, penile implantation, urogynecologic procedures, prostatectomy, nephrectomy, cystectomy, and scrotal/testicular cancer surgery. Generally, we have found that institutions do not have a standardized protocol with a set regimen to prescribe opioids, resulting in more opioids being prescribed than needed and patients not properly disposing of their unused prescriptions. However, many institutions recognize their opioid overuse and are implementing new multimodal opioid-sparing analgesics methods such as non-opioid peri-operative medications, minimally invasive robotic surgery, and nerve blocks or local anesthetics with varying degrees of success. By shedding light on these opioid-free methods and prescription protocols, along with improved patient education and counselling, we hope to bring awareness to institutions and decrease unnecessary opioid use.
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1
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51.

Musculoskeletal and Esthetic Complications after Neonatal Thoracotomy: Revisited.
Divya G, Kundal VK, Debnath PR, Addagatla RS, Garbhapu AK, Saha AK, Meena AK, Shah S, Sen A
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Journal of Indian Association of Pediatric Surgeons. 27(3):293-296, 2022 May-Jun.
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UI: 35733596

Aim: The aim is to study the complications of neonatal thoracotomy and its preventive measures.
Methods: We retrospectively reviewed 53 neonates who underwent thoracotomy from January 2017 to December 2019 for a period of 3 years. Patient demographic data, primary disease for which they underwent thoracotomy, postoperative complications (immediate and delayed) during follow-up were documented.
Results: During 3-year period, 53 neonates underwent thoracotomy for various surgical pathologies. The indications were esophageal atresia with tracheoesophageal fistula (n = 49), eventration of diaphragm (n = 3), congenital lobar emphysema of left upper lobe of lung (n = 1). Most of them were right posterolateral thoracotomies (n = 48, 90.56%) and left posterolateral thoracotomy was done in only 5 cases (9.43%). Associated anomalies were seen in 22 cases, such as cardiac (n = 19), renal (n = 4) and gastrointestinal (n = 5). Associated comorbidities seen in 14 cases; preterm (n = 4), low birth weight (n = 13), delayed presentation (n = 6). Early postoperative complications such as pneumonia (34%, n = 18) and wound infection (11.3%, n = 6) were noted. Delayed complications include musculoskeletal abnormalities (n = 19, 35.8%) and esthetic complications such as asymmetry of chest (5.6%).
Conclusion: Neonatal thoracotomy is associated with complications such as pneumonia, wound infections, and musculoskeletal abnormalities such as asymmetry of chest and scoliosis. These can be prevented by adequate postoperative pain relief, muscle-sparing thoracotomies, avoiding tight closures, and nerve injuries. Long-term follow-up is required because these complications may manifest later on also. Early detection and institution of physiotherapy may help.

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1
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52.

Outcomes of Mini-Percutaneous Nephrolithotomy in Children and Adolescents: A 10-Year Single-Centre Experience From Kuwait.
Zeid M, Sayedin H, Alsaid A, Sridharan N, Narayanaswa A, Giri S, Abul F, Almousawi S
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Cureus. 14(5):e25022, 2022 May.
[Journal Article]
UI: 35712329
The current study retrospectively reviewed data for all children and adolescents who underwent mini-percutaneous nephrolithotomy (PCNL) at Ibn Sina Hospital and Sabah Al Ahmad Urology Centre in Kuwait over 10 years. Accordingly, the 40 patients underwent mini-PCNL. Among them, 21 patients (52.5%) had varying degrees of hydronephrosis, with mild to moderate severity accounting for nearly half of them, whereas six (15%) had multiple stones. The median operative time was 54.5 (43.3-64) minutes. Moreover, 11 patients needed flexible ureteroscopy (URS) and double-J (DJ) ureteric stent, and one patient required DJ ureteric stent only. None of the cases developed intraoperative bleeding. The median hospital stay of the included patients was three (2.3-4) days. Residual stone was observed in 11 patients (27.5%), with a median size of 3 (2 to 7) mm. The incidence of postoperative complications was 27.5% (n = 11 patients), with three patients experiencing postoperative bleeding (7.5%) and eight patients developing a fever (20%). All patients had mild postoperative pain. However, no leakage, sepsis, or pelvic injury occurred. None of the patients required revision. In conclusion, mini-PCNL was a safe and effective procedure in children and adolescents with renal stones.

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1
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https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9197546
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53.

Outcome of tubeless percutaneous nephrolithotomy in elder patients: A single-center experience from a developing country.
Iqbal N, Iqbal S, Hasan A, Iqbal A, Blair KAA, Milstein DMJ, Akhter S

OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Journal of Clinical & Translational Research. 8(2):160-165, 2022 Apr 29.
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UI: 35475270
Background: Percutaneous nephrolithotomy (PCNL) has evolved as a standard procedure to treat large-sized renal stones. A nephrostomy tube is used frequently in this procedure; however, data regarding tubeless PCNL procedures in elder patients is scarce.
Aim: The aim of this study was to review the results and outcomes associated with tubeless PCNL procedures in the elderly population.
Materials and Methods: A retrospective review of patients aged >=60 years at our hospital that was treated for renal stones by PCNL procedure. The patients were separated into two groups: Group 1 underwent tubed PCNL procedures and Group 2 received tubeless PCNL procedures. Information regarding variables were recorded in specified pro forma and then processed in Statistical Package for the Social Sciences statistics analyses. Statistical tests were utilized for continuous and categorical variables and a P<0.05 was considered statistically significant.
Results: 121 patients with a mean age of 65+/-5 years were included in the analysis. Mean stone size and body mass index were 3.4+/-1.5 cm and 26.2+/-4.3 kg/m2, respectively. Mean operative time was longer in tubed PCNL as compared to the tubeless group. Mean hospital stay was similar among the tubed and tubeless PCNL treated groups. Mean analgesic doses were significantly lower in the tubeless group. The overall stone-free rate was 89/121 patients (74%).
Conclusion: Tubeless PCNL can be safely undertaken in geriatric patients and has potential advantages associated with shorter operative times and reduced necessity for analgesia.
Relevance for Patients: Tubeless PCNL is considered advantageous as it can reduce post-operative pain and analgesia necessity; shorten hospitalization and lower cost in young patients. However, there is no clear evidence with reference to virtue of tubeless PCNL in the elderly age groups. This study will analyze and review results and outcomes associated with tubeless PCNL in a cohort of elderly patients.

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1
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Year of Publication
2022

54.

An Opioid Sparing Anesthesia Protocol for Pediatric Open Inguinal Hernia Repair: A Quality Improvement Project.
Chiem JL, Franz A, Bishop N, Liston D, Low DK
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Pediatric Quality & Safety. 7(2):e548, 2022 Mar-Apr.
[Journal Article]
UI: 35369423
Using plan-do-study-act (PDSA) cycles, this quality improvement (QI) project aimed to standardize an anesthetic protocol to optimize multimodal pain management for pediatric open inguinal hernia repair (OIHR).
Methods: PDSA cycle 1: in December 2017, we standardized the intraoperative OIHR anesthesia protocol by replacing transversus abdominis plane (TAP) or ilioinguinal-iliohypogastric (II) blocks and fentanyl with exclusively II blocks and fentanyl. PDSA cycle 2: in January 2019, we used an opioid sparing strategy, replacing II blocks and fentanyl with II blocks and dexmedetomidine. We used statistical process control (SPC) charts to analyze data from the medical record. Outcome measures included the percent of patients requiring rescue morphine in the postanesthesia care unit (PACU), maximum PACU pain score, PACU length of stay (LOS), and anesthesia preparation duration.
Results: The team performed a total of 641 pediatric OIHRs between July 2015 and June 2021. The three groups included 203 patients in our baseline group, 127 patients in the PDSA cycle 1 group, and 311 patients in the PDSA cycle 2 group. Special cause variation (SCV) occurred for the percent of patients requiring rescue morphine, anesthesia preparation duration, and PACU LOS. The percent of patients requiring rescue morphine showed improvement. Anesthesia preparation duration improved compared to baseline. There was no SCV detected in the SPC chart for maximum PACU pain score.
Conclusion: We implemented an opioid sparing anesthetic protocol for pediatric OIHR utilizing II blocks and dexmedetomidine without adversely affecting postoperative pain score or morphine rescue rate over 6 years.

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1
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55.

Regional Anesthesia in Circumcision Surgery: Which of the Two Things Is Better?.
Comez MS, Aydin P
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
The Eurasian Journal of Medicine. 54(1):4-7, 2022 Feb.
[Journal Article]
UI: 35307620
OBJECTIVE: Postcircumcision pain in children can cause restlessness, crying and bleeding due to trauma. However, there are various methods to prevent postoperative pain, caudal and penile blocks are in the foreground. The primary objective of this study is to evaluate the effectiveness of CB and PB for the relief of postcircumcision pain. The secondary aim is to evaluate the postoperative additional analgesic requirement and side effects of these blocks.
MATERIALS AND METHODS: A total of 148 children between the ages of 2 and 10 who underwent circumcision surgery were randomly assigned to two groups in terms of postoperative analgesia. 1) A group of caudal block (0,5 ml/kg %0.25 levobupivacaine) and 2) A group of penile block (0,3 ml/kg %0,25 levobupivacaine). Premedication and sedoanalgesia were standardized. The pain (FLACC Pain Score), analgesic consumption, motor block (Bromage Scale) and side effects (vomiting, hematoma, urinary retention) were assessed postoperatively for 4 hours.
RESULTS: Postoperative FLACC scores were lower for caudale block group in the 1st, 3rd and 4th hours. There was no significant difference in postoperative analgesic consumption between the groups. The most common postoperative side effect was vomiting in both groups.
CONCLUSION: Caudal block provided more effective analgesia than penile block in postcircumcision pain control.
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1
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56.

Association of Anesthesiologist Staffing Ratio With Surgical Patient Morbidity and Mortality.
Burns ML, Saager L, Cassidy RB, Mentz G, Mashour GA, Kheterpal S
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
JAMA Surgery. 157(9):807-815, 2022 09 01.

[Journal Article. Multicenter Study. Research Support, Non-U.S. Gov't. Research Support, N.I.H., Extramural]
UI: 35857304
Importance: Recent studies have investigated the effect of overlapping surgeon responsibilities or nurse to patient staffing ratios on patient outcomes, but the association of overlapping anesthesiologist responsibilities with patient outcomes remains unexplored to our knowledge.
Objective: To examine the association between different levels of anesthesiologist staffing ratios and surgical patient morbidity and mortality.
Design, Setting, and Participants: A retrospective, matched cohort study consisting of major noncardiac inpatient surgical procedures performed from January 1, 2010, to October 31, 2017, was conducted in 23 US academic and private hospitals. A total of 866453 adult patients (aged >=18 years) undergoing major inpatient surgery within the Multicenter Perioperative Outcomes Group electronic health record registry were included. Anesthesiologist sign-in and sign-out times were used to calculate a continuous time-weighted average staffing ratio variable for each operation. Propensity score-matching methods were applied to create balanced sample groups with respect to patient-, operative-, and hospital-level confounders and resulted in 4 groups based on anesthesiologist staffing ratio. Groups consisted of patients receiving care from an anesthesiologist covering 1 operation (group 1), more than 1 to no more than 2 overlapping operations (group 1-2), more than 2 to no more than 3 overlapping operations (group 2-3), and more than 3 to no more than 4 overlapping operations (group 3-4). Data analysis was performed from October 2019 to October 2021.
Exposure: Undergoing a major inpatient surgical operation that involved an anesthesiologist providing care for up to 4 overlapping operations.
Main Outcomes and Measures: The primary composite outcome was 30-day mortality and 6 major surgical morbidities (cardiac, respiratory, gastrointestinal, urinary, bleeding, and infectious complications) derived from International Classification of Diseases, Ninth Revision and International Statistical Classification of Diseases and Related Health Problems, Tenth Revision discharge diagnosis codes.
Results: In all, 578815 adult patients (mean [SD] age, 55.7 [16.2] years; 55.1% female) were analyzed. After matching operations according to anesthesiologist staffing ratio, 48555 patients were in group 1; 247057, group 1-2; 216193, group 2-3; and 67010, group 3-4. Increasing anesthesiologist coverage responsibilities was associated with an increase in risk-adjusted surgical patient morbidity and mortality. Compared with patients in group 1-2, those in group 2-3 had a 4% relative increase in risk-adjusted mortality and morbidity (5.06% vs 5.25%; adjusted odds ratio [AOR], 1.04; 95% CI, 1.01-1.08; P = .02) and those in group 3-4 had a 14% increase in risk-adjusted mortality and morbidity (5.06% vs 5.75%; AOR, 1.15; 95% CI, 1.09-1.21; P < .001).
Conclusions and Relevance: This study's findings suggest that increasing overlapping coverage by anesthesiologists is associated with increased surgical patient morbidity and mortality. Therefore, the potential effects of staffing ratios in perioperative team models should be considered in clinical coverage efforts.
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1
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57.

Association Between Changes in Postoperative Opioid Utilization and Long-Term Health Care Spending Among Surgical Patients With Chronic Opioid Utilization.
Sun EC, Rishel CA, Jena AB
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Anesthesia & Analgesia. 134(3):515-523, 2022 03 01.
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UI: 35180168
BACKGROUND: There is growing interest in identifying and developing interventions aimed at reducing the risk of increased, long-term opioid use among surgical patients. While understanding how these interventions impact health care spending has important policy implications and may facilitate the widespread adoption of these interventions, the extent to which they may impact health care spending among surgical patients who utilize opioids chronically is unknown.
METHODS: This study was a retrospective analysis of administrative health care claims data for privately insured patients. We identified 53,847 patients undergoing 1 of 10 procedures between January 1, 2004, and September 30, 2018 (total knee arthroplasty, total hip arthroplasty, laparoscopic cholecystectomy, open cholecystectomy, laparoscopic appendectomy, open appendectomy, cesarean delivery, functional endoscopic sinus surgery, transurethral resection of the prostate, or simple mastectomy) who had chronic opioid utilization (>=10 prescriptions or >=120-day supply in the year before surgery). Patients were classified into 3 groups based on differences in opioid utilization, measured in average daily oral morphine milligram equivalents (MMEs), between the first postoperative year and the year before surgery: "stable" (<20% change), "increasing" (>=20% increase), or "decreasing" (>=20% decrease). We then examined the association between these 3 groups and health care spending during the first postoperative year, using a multivariable regression to adjust for observable confounders, such as patient demographics, medical comorbidities, and preoperative health care utilization.
RESULTS: The average age of the sample was 62.0 (standard deviation [SD] 13.1) years, and there were 35,715 (66.3%) women. Based on the change in average daily MME between the first postoperative year and the year before surgery, 16,961 (31.5%) patients were classified as "stable," 15,463 (28.7%) were classified as "increasing," and 21,423 (39.8%) patients were classified as "decreasing." After adjusting for potential confounders, "increasing" patients had higher health care spending ($37,437) than "stable" patients ($31,061), a difference that was statistically significant ($6377; 95% confidence interval [CI], $5669-$7084; P < .001), while "decreasing" patients had lower health care spending ($29,990), a difference (-$1070) that was also statistically significant (95% CI, -$1679 to -$462; P = .001). These results were generally consistent across an array of subgroup and sensitivity analyses.
CONCLUSIONS: Among patients with chronic opioid utilization before surgery, subsequent increases in opioid utilization during the first postoperative year were associated with increased health care spending during that timeframe, while subsequent decreases in opioid utilization were associated with decreased health care spending.

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1
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58.

Comparative evaluation of the analgesic efficacy of ultrasound-guided erector spinae plane block versus intrathecal morphine in patients undergoing percutaneous nephrolithotomy surgery: A prospective randomized pilot study.
Baishya M, Pandey RK, Sharma A, Punj J, Darlong V, Rewari V, Sinha R, Dehran M, Goswami D, Bhoi D, Singh P, Maitra S, Ranjith K, Nayak B, Yadav P
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International Journal of Urology. 29(7):668-674, 2022 07.
[Journal Article. Randomized Controlled Trial]
UI: 35322474
OBJECTIVES: Existing research on erector spinae plane block and intrathecal morphine in patients undergoing percutaneous nephrolithotomy surgery is limited.
METHODS: In this prospective, randomized study, 60 patients aged between 18 and 60 years were randomized into two groups (erector spinae plane block and intrathecal morphine). In the erector spinae plane block group, ultrasound-guided erector spinae plane block was performed, following which a mixture of 20 mL of 0.375% ropivacaine and 0.5 mcg/kg of clonidine was injected. In the intrathecal morphine group, 150 mcg preservative-free morphine with 2 mL of normal saline was administered intrathecally. The primary outcome was to evaluate the perioperative opioid consumption in the first 24 h. The secondary outcomes were to evaluate hemodynamic response to surgical stimulus, visual analogue scale score, time to first analgesic requirement, postoperative nausea and vomiting, postoperative opioid consumption, urethral irritation, and incidence of drug-related adverse effects.
RESULTS: Total perioperative opioid consumption in the erector spinae plane block group was 355.0 (265.0, 485.0) mug and 240.0 (145.0, 370.0) mug in the intrathecal morphine group (P = 0.09). However, the patients in the erector spinae plane block group had significantly greater postoperative fentanyl consumption (235.0 [120.0, 345.0] mug) compared with those in the intrathecal morphine group (105.0 [30.0, 225.0] mug). There were no statistically significant differences noted for intraoperative opioid consumption, postoperative visual analogue scale score, time to first analgesic request, postoperative nausea and vomiting, and catheter irritation between the two groups.
CONCLUSIONS: Although no statistically significant difference in intraoperative opioid consumption was seen between the erector spinae plane block and intrathecal morphine groups, postoperative opioid consumption was significantly higher in the erector spinae plane block group

than in the intrathecal morphine group in patients undergoing percutaneous nephrolithotomy surgery.

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1
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59.

Preoperative embolization in surgical treatment of spinal metastases originating from non-hypervascular primary tumors: a propensity score matched study using 495 patients.
Groot OQ, van Steijn NJ, Ogink PT, Pierik RJ, Bongers MER, Zijlstra H, de Groot TM, An TJ, Rabinov JD, Verlaan JJ, Schwab JH
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Spine Journal: Official Journal of the North American Spine Society. 22(8):1334-1344, 2022 08.
[Journal Article]
UI: 35263662
BACKGROUND CONTEXT: Preoperative embolization (PE) reduces intraoperative blood loss during surgery for spinal metastases of hypervascular primary tumors such as thyroid and renal cell tumors. However, most spinal metastases originate from primary breast, prostate, and lung tumors and it remains unclear whether these and other spinal metastases benefit from PE.
PURPOSE: To assess the (1) efficacy of PE on the amount of intraoperative blood loss and safety in patients with spinal metastases originating from non-hypervascular primary tumors, and (2) secondary outcomes including perioperative allogeneic blood transfusion, anesthesia time, hospitalization, postoperative complication within 30 days, reoperation, 90-day mortality, and 1-year mortality.
STUDY DESIGN: Retrospective propensity-score matched, case-control study at 2 academic tertiary medical centers.
PATIENT SAMPLE: Patients 18 years of age or older undergoing surgery for spinal metastases originating from primary non-thyroid, non-renal cell, and non-hepatocellular tumors between January 1, 2002 and December 31, 2016 were included.
OUTCOME MEASURES: The primary outcomes were estimated amount of intraoperative blood loss and complications attributable to PE, such as neurologic injury, wound infection, thrombosis, or dissection. The secondary outcomes included perioperative allogeneic blood transfusion, anesthesia time, hospitalization, postoperative complication within 30 days, reoperation, 90-day mortality, and 1-year mortality.
METHODS: In total, 495 patients were identified, of which 54 (11%) underwent PE. After propensity score matching on 21 variables, including primary tumor, number of spinal levels, and surgical treatment, 53 non-PE patients were matched to 53 PE patients. Matching was adequate measured by comparing the matched variables, testing the standardized mean differences (<0.25), and inspecting Kernel density plots. The degree of embolization was noted to be complete, until stasis, or successful in 43 (80%) patients.
RESULTS: Intraoperative blood loss did not differ between both groups with a median blood loss in liters of 0.6 (IQR, 0.4-1.2) for non-PE patients and 0.9 (IQR, 0.6-1.2) for PE patients (p=.32). No complications occurred during embolization or the time between embolization and surgery. No differences were found in terms of the secondary outcomes.
CONCLUSIONS: Our data suggest that, although no complications occurred and the embolization procedure can be considered safe, patients with non-hypervascular spinal metastases might not benefit from PE. A larger, prospective study could confirm or refute these study findings and aid in elucidating a subset of spinal metastases that might benefit from PE.

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1
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60.

Postoperative pain and pain-related health-care contacts after open inguinal hernia repair with Adhesix TM and Progrip TM: a randomized controlled trial.
Tholix AM, Kossi J, Harju J
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Hernia. 26(4):1095-1104, 2022 08.
[Journal Article. Randomized Controlled Trial. Research Support, Non-U.S. Gov't]
UI: 35064853
PURPOSE: Self-fixed mesh is an alternative to suture mesh fixation in inguinal hernia repair. The aim of this study was to evaluate postoperative pain after open inguinal hernia surgery using self-fixed meshes.
METHODS: A randomized clinical trial comparing self-adhesive mesh (Adhesix TM) and self-gripping mesh (Progrip TM) was conducted from November 2018 through March 2021. Patients included were male, 18-85 years old, and suitable for day case surgery. The primary endpoint was the number of patients needing follow-up visits due to postoperative pain during the first 3 postoperative months. Secondary endpoints included the intensity of pain, the time of return to work and normal daily activities, quality of life measures and postoperative complications.
RESULTS: 270 patients were enrolled, 132 received Adhesix TM mesh (A group) and 138 Progrip TM mesh (P group), 231 (85.6%) completed 1- or 3-month follow-up. The number of patients needing follow-up for postoperative pain was significantly higher in the P group (19 vs. 4, p = 0.001). The P group had higher numeric rating scale of pain while coughing (P 0.50 vs. A 0.20, p = 0.024) and during exercise (P 1.02 vs. A 0.60, p = 0.057) at 3 months postoperatively. The time of return to normal activity was 16.6 days in the A group and 22.9 days in the P group,

(p = 0.004). The postoperative day being fit for work was sooner for the A group (14.3 days vs 17.8 days, p = 0.009).
CONCLUSION: This study demonstrated an advantage of self-adhesive mesh over self-gripping mesh with respect to acute postoperative pain and thus faster recovery after surgery.

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1
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61.

Analysis of factors associated with postoperative complications after primary hypospadias repair: a retrospective study.
He Z., Yang B., Tang Y., Mao Y.
Embase
Translational Andrology and Urology. 11(11) (pp 1577-1585), 2022. Date of Publication: November 2022.
[Article]
AN: 2022596689
Background: To determine the risk factors for postoperative complications after primary hypospadias repair. Hypospadias has a high postoperative complication rate, and the risk factors of postoperative complications have attracted extensive attention.
Method(s): A total of 857 children who received primary surgical repair for hypospadias in our center between 3 January 2017 and 29 January 2021 were retrospectively analyzed. The collected data included age at time of surgery, type of hypospadias, body mass index (BMI), surgeon, operation time, length of reconstructed urethra, method of anesthesia (general anesthesia or general anesthesia combined with caudal anesthesia), and postoperative constipation. The risk factors for postoperative complications were analyzed by multivariate analysis.
Result(s): The follow-up time in this study was 6-54 months, with a mean follow-up time of 29 months. A total of 96 (11.2%) of the 857 pediatric patients had postoperative complications, including 44 (45.8%) cases of urethral fistula, 14 (14.6%) cases of urethral stricture, 5 (5.2%) cases of urethral diverticula, 5 (5.2%) cases of distal dehiscence, 3 (3.1%) cases of poor exposure, 2 (2.1%) cases of residual curvature, 1 (1.0%) case of penoscrotal transposition, 6 (6.3%) cases of urethral stricture and diverticulum, 6 (6.3%) cases of urethral fistula and diverticulum, 3 (3.1%) cases of urethral fistula and postoperative residual curvature, 2 (2.1%) cases of urethral fistula and distal dehiscence, and 1 (1.0%) case each of urethral fistula and

transposition, urethral diverticulum and poor exposure, urethral stricture and poor exposure, distal dehiscence and transposition, and residual curvature and transposition. After univariate analysis, type of hypospadias (P=0.038), operation time (P<0.001), length of reconstructed urethra (P=0.007), and postoperative constipation (P=0.019) were included in the multivariate logistic regression analysis. The results showed that postoperative constipation was an independent risk factor for complications [P=0.027, odds ratio (OR) =1.793, confidence interval (CI): 1.067 to 3.012].
Conclusion(s): Postoperative constipation is an important influencing factor for postoperative complications following primary hypospadias repair. Therefore, defecation management should be strengthened for hypospadias patients during the perioperative period.

Status
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Publisher
AME Publishing Company
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62.

Efficacy and Safety of NSAIDs in Infants: A Comprehensive Review of the Literature of the Past 20 Years.
Ziesenitz V.C., Welzel T., van Dyk M., Saur P., Gorenflo M., van den Anker J.N.
Embase
Pediatric Drugs. 24(6) (pp 603-655), 2022. Date of Publication: November 2022.
[Review]
AN: 2018870002
Non-steroidal anti-inflammatory drugs (NSAIDs) are commonly used in infants, children, and adolescents worldwide; however, despite sufficient evidence of the beneficial effects of NSAIDs in children and adolescents, there is a lack of comprehensive data in infants. The present review summarizes the current knowledge on the safety and efficacy of various NSAIDs used in infants for which data are available, and includes ibuprofen, dexibuprofen, ketoprofen, flurbiprofen, naproxen, diclofenac, ketorolac, indomethacin, niflumic acid, meloxicam, celecoxib, parecoxib, rofecoxib, acetylsalicylic acid, and nimesulide. The efficacy of NSAIDs has been documented for a variety of conditions, such as fever and pain. NSAIDs are also the main pillars of anti-inflammatory treatment, such as in pediatric inflammatory rheumatic diseases. Limited data are available on the safety of most NSAIDs in infants. Adverse drug reactions may be renal, gastrointestinal, hematological, or immunologic. Since NSAIDs are among the most frequently used drugs in the pediatric population, safety and efficacy studies can be performed as part of normal clinical routine, even in young infants. Available data sources, such as (electronic) medical records, should be used for safety and efficacy analyses. On a larger scale, existing data sources, e.g. adverse drug reaction programs/networks, spontaneous national reporting systems, and electronic medical records should be assessed with child-specific methods in order to detect safety signals pertinent to certain pediatric age groups or disease entities. To improve the safety of NSAIDs in infants, treatment needs to be initiated with the lowest age-appropriate or weight-based dose. Duration of treatment and amount of drug used should be regularly evaluated and maximum dose limits and other recommendations by the manufacturer or expert committees should be followed. Treatment for non-chronic conditions such as fever and acute (postoperative)

pain should be kept as short as possible. Patients with chronic conditions should be regularly monitored for possible adverse effects of NSAIDs.

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63.

A comparative randomized study of USG guided transversus abdominis plane block versus USG guided caudal block for post-operative analgesia in paediatric unilateral open inguinal hernia repair.
Vinukonda M., Kumar K.S., Suggala K.K.
Embase
European Journal of Molecular and Clinical Medicine. 9(4) (pp 3909-3918), 2022. Date of Publication: June 2022.
[Article]
AN: 2020347675
Introduction: Inguinal hernia repair, the commonly performed surgery in pediatric patient, is associated with significant postoperative pain. Transversus abdominis plane (TAP) block is the newly used regional technique for providing analgesia after abdominal surgeries. Use of ultrasound in regional anaesthesia has improved the safety and reliability of the TAP block and caudal block. There is limited literature comparing the effect of USG guided Transversus abdominis plane block and USG guided caudal block for post-operative analgesia. The aim of our study is to compare post-operative analgesia in USG guided Transversus abdominis plane block versus USG guided caudal block in unilateral open herniotomy in paediatric age group.
Method(s): After approval of Institute ethical committee and parental consent, total of 60 patients of ASA I & ASA II physical status, aged between 2-8 years scheduled for elective open inguinal hernia repair surgery were randomly divided into 2 groups: Group T and Group C. After induction of general anaesthesia, Group C received USG guided Caudal block with 1ml/kg of 0.2% ropivacaine & Group T received USG guided TAP block with 0.5ml/kg of 0.2% ropivacaine. Inj. Paracetamol IV 15mg/kg was given in case of failed block. The primary outcome variable duration

of postoperative analgesia using CHEOPS score and the secondary outcomes like HR, BP, SPO2, were measured at 0,1,2,4,6,8,12,16,24 hours respectively and adverse effects, if any were noted.
Result(s): There was no significant difference in median CHEOPS score till 6 hours of postoperative period among both the groups and thereafter significantly lower CHEOPS score was found in Group T till 24 hours postoperative period, when compared to Group C. Mean duration of analgesia was 563.45+/-61.31 minutes in Group T, whereas in Group C, it was 362.59+/-32.54 minutes.
Conclusion(s): Thus, we conclude that USG-guided Transversus abdominis plane block provided longer duration of analgesia and reduced rescue analgesic dose without any significant adverse effects when compared with USG guided caudal block after inguinal herniotomy.

Status
Embase
Institution
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Year of Publication
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64.

To Compare the Efficacy of Intrathecal Clonidine and Intrathecal Fentanyl As An Adjuvant to Hyperbaric Bupivacaine for Infra-Umbilical Urological Surgeries.
Bagle A., Kumar N., Chandrakala, Teja J.S.
Embase
Journal of Pharmaceutical Negative Results. 13 (pp 7378-7386), 2022. Date of Publication: 2022.
[Article]
AN: 2022111879
Back ground: Local anesthetics and intrathecal opioids work together synergistically to increasethe sensory block without enhancing the sympathetic block.Research to create non-opioid analgesics has been spurred by catastrophic delayed respiratory depression caused by opioidsImportant drawback is,shorter duration of action with bupivacaine and postoperative analgesia requirement and hemodynamic state. Our study was conducted to determine the effectiveness of clonidine andfentanyl as an adjuvant with hyperbaric bupivacaine for post-operative analgesia in urologicalsurgery based on the aforementioned facts.
Material(s) and Method(s):This prospective randomized placebo-controlled, double blinded study was conducted on 60 patients at tertiary care center for 18 months. They were divided into 2 groups consisting of 30 in each. Group A received intrathecal 0.5% hyperbaric Bupivacaine, 12.5mg(2.5ml) + inj. Clonidine 60mcg and Group B received intrathecal 0.5% hyperbaric Bupivacaine, 12.5mg (2.5ml) + inj. Fentanyl 25mcg. The time of onset and duration and level of sensory and motor block, time to complete sensory and motor block recovery and duration of spinal anaesthesia, intraoperative and postoperative hemodynamics and side effects if any were noted.Motor blockade was assessed using modified Bromage scale, Intra and post-operative sedation will be assessed using Ramsay Sedation Score and post-operativepain was assessed usingVisual Analogue Scale (VAS) Results:The time of onset of sensory and motor block was delayed in group A but the duration of sensory and motor block was more compared to group B and the difference was statistically significant ($p<0.05$). Duration of analgesia was also prolonged in group A. Hemodynamic stabilitywasbetter in group B and incidence of side-effects was more in group A

Conclusion(s):Fentanyl has a shorter duration of sensory and motor blockade and is also linked to alesser incidence of side effects, whereas clonidine has longer duration of sensory and motor block and higher incidence of side effects.However clonidine can be used as an better adjuvant with bupivacainein long duration surgeries and fentanyl can be used as an better adjuvant with bupivacaine in shirt duration surgeries. Both medications do not result in persistent motor block, or respiratory depression.

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Publisher
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Year of Publication
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65.

Postoperative infections after non-elective cesarean section - a retrospective cohort study of prevalence and risk factors at a single center in Denmark administering prophylactic antibiotics after cord clamping.
Kuhr K., Axelsson P.B., Andersen B.R., Ammitzboll I.L.A., Clausen T.D., Lokkegaard E.C.L.
Embase
BMC Pregnancy and Childbirth. 22(1) (no pagination), 2022. Article Number: 945. Date of Publication: December 2022.
[Article]
AN: 2020645521
Background: Mothers giving birth by non-elective cesarean section have considerably higher risk of developing postoperative infection, than mothers giving birth by elective cesarean section. Meta-analyses have shown that the risk of infection is reduced when administering antibiotics at least 30 min prior to skin incision rather than after cord clamping. If given prior to incision, antibiotics are present in the neonatal bloodstream for up to 24 h after delivery, with early exposure to antibiotics potentially disturbing development of the gut microbiome. We aimed to retrospectively assess the prevalence of postoperative infection after non-elective cesarean section at a single labor ward administering antibiotics after cord clamping, additionally investigating risk factors for developing postoperative infections.
Method(s): In this retrospective cohort study, we included a total of 2,725 women giving birth by non-elective cesarean section in 2010-2017 with a review of records for prenatal risk factors, labor management, and perinatal outcomes. The primary outcomes were a main composite infection of development of either endometritis, surgical-site infection, or sepsis in conjunction with a relevant antibiotic prescription. Secondary outcomes included infection of unknown focus, mastitis, urinary tract infection, and pneumonia.
Result(s): A total of 88 patients developed a main composite infection (3.2%). These infections subdivide into endometritis (n = 37/2725, 1.4%), surgical-site infection (n = 35/2725, 1.3%) and sepsis (n = 15/2725, 0.6%). We found a high body mass index (aOR = 3.38, 95%CI 1.93-5.92) and intrapartum fever (aOR = 2.26, 95%CI 1.22-4.59) to be independent risk-factors for developing postoperative infection after non-elective cesarean section. Furthermore, we found delivery by a more expedient emergency grade 2 cesarean section (aOR = 0.61 95%CI 0.37-0.998) compared to grade 3 to be a protective factor for developing postoperative infection after non-elective cesarean section.

Conclusion(s): In a labor ward administering antibiotics after cord clamping at non-elective cesarean births, we find a low prevalence of main composite infections when compared to estimates from meta-analyses on the topic. We conclude that administration of prophylactic antibiotics after cord clamping appears to result in acceptable rates of postoperative infection and avoids transplacental-transmission of antibiotics to the infant.

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66.

Comparison of Perioperative Outcomes in Patients Undergoing Short-Level Lumbar Fusion Surgery After Implementing Enhanced Recovery After Surgery: A Propensity Score Matching Analysis Focusing on Young-Old and Old-Old.
Cui P., Wang P., Hu X., Kong C., Lu S.
Embase
Clinical Interventions in Aging. 17 (pp 1793-1801), 2022. Date of Publication: 2022.
[Article]
AN: 2018755158
Background: There were exponentially increased studies focused on revealing the satisfactory outcomes after implementing enhanced recovery after surgery (ERAS) in patients undergoing lumbar fusion surgery. However, little attention has been paid to the impact of chronologic age alone on perioperative outcomes.
Method(s): In the present study, patients were dichotomized into two groups: young-old (65-79 years), and old-old (80 years and older). Given the heterogeneity and age-related comorbidities in this population and the need to compare similar groups, we performed propensity score matching for gender, body mass index (BMI), operation time, American Society of Anesthesiologists (ASA) grade, Charlson Comorbidity Index (CCI), fusion levels and frail status. Perioperative outcomes were compared between two groups.
Result(s): In our study, we found there were significant discrepancies in length of stay (LOS) (7.17 +/- 2.81 vs 8.11 +/- 3.57 days, p = 0.031) and postoperative nausea and vomiting (3.7% vs 11.0%, p = 0.038); however, there were no significant differences in C-reactive protein (21.50 +/- 26.52 vs 19.22 +/- 22.04 mg/L, p = 0.490), overall complication rates (24.8% vs 33.0%, p = 0.179), ambulation time (2.89 +/- 1.34 vs 2.55 +/- 1.49 days, p = 0.078) or removal of urinary catheter time (2.47 +/- 1.44 vs 2.32 +/- 1.40 days, p = 0.446).
Conclusion(s): There were few differences in perioperative outcomes between young-old and old-old groups. Despite similar postoperative complication rates, the old-old group might experience longer LOS when complications occur. More importantly, current outcomes suggested that chronologic age alone does not appear to have the capacity to reflect the tolerance of elderly patients to surgery.

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Publisher
Dove Medical Press Ltd
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67.

Effect of Caffeine on the Acceleration of Emergence from General Anesthesia with Inhalation Anesthetics in Children Undergoing Inguinal Herniorrhaphy: A Randomized Clinical Trial.
Emami S., Panah A., Hakimi S.S., Sahmeddini M.A.
Embase
Iranian Journal of Medical Sciences. 47(2) (pp 107-113), 2022. Date of Publication: March 2022.
[Article]
AN: 2015866857
Background: Awakening following general anesthesia (GA) is one of the most important concerns of anesthesiologists in their daily work. Previous studies on adult humans found that caffeine could accelerate awakening after anesthesia. This study aimed to determine whether or not caffeine can accelerate awakening after anesthesia in children undergoing inguinal herniorrhaphy under GA.
Method(s): In this randomized clinical trial, we enrolled 18 children undergoing inguinal herniorrhaphy under GA with inhaled anesthetics from June 2019 to September 2019 in the tertiary hospital affiliated with Shiraz University of Medical Sciences (Shiraz, Iran). These children were randomly allocated to two groups. In group A, the children received intravenous caffeine (10 mg/Kg) at the end of the surgery, and in group B, the children received intravenous normal saline at the end of the surgery. The primary outcome was laryngeal mask airway (LMA) removal time at the end of anesthesia. Intra-operative hemodynamic data and side effects such as nausea, vomiting, dysrhythmia, cyanosis, and seizures in the recovery room were recorded and compared between the two groups. We used the independent-samples t test, Fisher's exact test, and repeated measures ANOVA for analyzing the data. P values<0.05 were considered statistically significant.
Result(s): There were no significant differences in terms of demographic characteristics and hemodynamic data between the two groups. Furthermore, the time from the induction of anesthesia to laryngeal mask removal was 44.77+/-7.87 min in the placebo group and 44.55+/-10.68 min in the caffeine group. Therefore, there was no significant difference between the two groups (P=0.961).
Conclusion(s): In children undergoing inguinal herniorrhaphy under GA, 10 mg/Kg of caffeine could not accelerate awakening from GA. However, caffeine did not increase the blood pressure and heart rate in the children, and no significant side effects were observed.

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Shiraz University of Medical Sciences
Clinical Trial Number
IRCT20190511043550N/IRCT
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68.

Ureteral Access Sheaths and Its Use in the Future: A Comprehensive Update Based on a Literature Review.
De Coninck V., Somani B., Sener E.T., Emiliani E., Corrales M., Juliebo-Jones P., Pietropaolo A., Mykoniatis I., Zeeshan Hameed B.M., Esperto F., Proietti S., Traxer O., Keller E.X.
Embase
Journal of Clinical Medicine. 11(17) (no pagination), 2022. Article Number: 5128. Date of Publication: September 2022.
[Review]
AN: 2018992746
Ureteral access sheaths (UASs) are part of urologist's armamentarium when performing retrograde intrarenal surgery (RIRS). Recently, the world of RIRS has changed dramatically with the development of three game-changers: thulium fiber laser (TFL), smaller size single use digital flexible ureterosopes and intraoperative intrarenal pressure (IRP) measurement devices. We aimed to clarify the impact of UASs on IRP, complications and SFRs and put its indications in perspective of these three major technological improvements. A systematic review of the literature using the Medline, Scopus and Web of Science databases was performed by two authors and relevant studies were selected according to PRISMA guidelines. Recent studies showed that using a UAS lowers IRP and intrarenal temperature by increasing irrigation outflow during RIRS. Data on the impact of a UAS on SFRs, postoperative pain, risk of infectious complications, risk of ureteral strictures and risk of bladder recurrence of urothelial carcinoma after diagnostic RIRS were inconclusive. Prestenting for at least one week resulted in ureteral enlargement, while the influence of pre-operative administration of alpha-blockers was unclear. Since TFL, smaller single use digital ureteroscopes and devices with integrated pressure-measuring and aspiration technology seemed to increase SFRs and decrease pressure and temperature related complications, indications on the use of a UAS may decrease in the near future.

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69.

Single-center experience with perioperative antibiotic prophylaxis and surgical site infections in kidney transplant recipients.
Ostaszewska A., Domagala P., Zawistowski M., Karpeta E., Wszola M.
Embase
BMC Infectious Diseases. 22(1) (no pagination), 2022. Article Number: 199. Date of Publication: December 2022.
[Article]
AN: 2015168554
Background: Infections in kidney transplant recipients are particularly challenging owing to the immunosuppressive treatment, usually long history of chronic illness, comorbidities and prior exposures to antibiotics. Among the most common complications early after surgery are surgical site infections. The aim of this study was to identify risk factors and evaluate epidemiological data regarding surgical site infections. Moreover, we were able to compare the current results with historical data from our institution when different perioperative antibiotic prophylaxis was practiced.
Method(s): We conducted a retrospective case-control study in a group of 254 deceased donor renal graft recipients transplanted in a single Central European institution. We evaluated epidemiological findings and resistance patterns of pathogens causing surgical site infections. We used multivariable logistic regression to determine risk factors for surgical site infections.
Result(s): We revealed no differences in baseline characteristics between patients with and without surgical site infections. Ten surgical site infections (3.9%) were diagnosed (six superficial incisional, two deep incisional, and two organ/space). Eight species (19 strains) were identified, most of which were multi-drug resistant (63%). The most common was extended-spectrum beta-lactamase producing Klebsiella pneumoniae (26%). We showed that statistically significant differences were present between reoperated and non-reoperated patients (adjusted odds ratio: 6.963, 95% confidence interval 1.523-31.842, P =.012).

Conclusion(s): Reoperation is an individual risk factor for surgical site infection after kidney transplantation. According to our experience, cefazolin-based prophylaxis can be safe and is associated with relatively low prevalence of surgical site infections.

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Publisher
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70.

A Clinical Study of Minilaparoscopy in the Treatment of Cryptorchidism with an Ipsilateral Inguinal Hernia.
Zhu X., Han X., Zhang P., Wang S., Li G., Li Y., Zhu Y., Du H., Liu S.
Embase
Journal of Laparoendoscopic and Advanced Surgical Techniques. 32(3) (pp 237-243), 2022. Date of Publication: March 2022.
[Article]
AN: 637604610
Introduction: The aim of this study was to investigate the safety and efficacy of performing minilaparoscopy compared with standard laparoscopy in the treatment of cryptorchidism with an ipsilateral inguinal hernia.
Material(s) and Method(s): In total, 46 patients with cryptorchidism and an ipsilateral inguinal hernia were admitted to the Urology and Hernia and Abdominal Wall Surgery Departments of Beijing Chaoyang Hospital between October 2009 and July 2019. They were assigned to two groups: Group M and Group S. In Group M, 24 patients underwent herniorrhaphy and orchiopexy using minilaparoscopy, and in Group S, 22 patients underwent herniorrhaphy and orchiopexy using standard laparoscopy. Surgeons chose the procedure at random, and the patients were blinded to the selected procedure.
Result(s): Postoperative painkiller demand (P = .043) and first postoperative day Numerical Rating Scale scores (P = .032) were lower in Group M than Group S, and the average hospital stay was shorter (P = .041) in Group M. Furthermore, 21 of the 24 procedures in Group M were successful, 3 procedures of Group M were converted from mini- to standard laparoscopy, and all 22 procedures in Group S were successful. The Observer Scar Assessment Scale questionnaire results of Group M were significantly higher than for patients in Group S (P = .038).
Conclusion(s): Our findings suggest that treatment of cryptorchidism with ipsilateral inguinal hernia using minilaparoscopy is as safe and effective as standard laparoscopy.

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Publisher
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71.

Ultrasound Verification of Laparoscopic-Assisted Transversus Abdominis Plane Blocks in Children Undergoing Laparoscopic Procedures.
Taylor J.S., Ramamurthi R.J., Austin J., Gibson M., Diyaolu M., Munshey F., McFadyen G., Tsui B., Chao S.D.
Embase
Journal of Laparoendoscopic and Advanced Surgical Techniques. 32(3) (pp 325-329), 2022. Date of Publication: March 2022.
[Article]
AN: 637604606
Purpose: Ultrasound-guided transversus abdominis plane (TAP) blocks have been demonstrated to decrease postoperative pain; however, laparoscopic-assisted TAP (L-TAP) blocks have not been well studied in children. Our study utilized intraoperative ultrasound to verify whether surgeon-administered blocks using only laparoscopic visualization were reliably delivered into the correct plane.
Material(s) and Method(s): Patients undergoing laparoscopic procedures were enrolled to receive L-TAP blocks. Preblock and postblock ultrasounds were performed to document the plane of local anesthetic delivery. Ultrasound images were reviewed by two blinded anesthesiologists to determine whether the L-TAP block was administered into the desired plane.
Result(s): Fifty-one patients were enrolled. The average age was 5.9 years (range: 2 days to 17 years) and the mean weight was 25.4 kg (range: 2.64-118.8 kg). The most common procedures were inguinal hernia repair (n = 19), appendectomy (n = 10), and gastrostomy-tube placements (n = 13). Nine surgeons performed 93 L-TAP blocks (average: 10.3 blocks/surgeon). Ultrasound confirmed distribution in the correct plane in 53.5/93 blocks (57.5%; 58.0% for attending surgeons), with 77.4% concurrence between the anesthesiologist reviewers.
Conclusion(s): L-TAP achieves delivery of local anesthetic into the correct tissue plane in over half the cases with minimal training. Further studies are needed to examine the effect of L-TAP blocks on reducing postoperative pain in pediatric patients.

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72.

Is parenteral antibiotic prophylaxis associated with fewer infectious complications in stented, distal hypospadias repair?.
Doersch K.M., Logvinenko T., Nelson C.P., Yetistirici O., Venna A.M., Masoom S.N., Diamond D.A.
Embase
Journal of Pediatric Urology. 18(6) (pp 759-763), 2022. Date of Publication: December 2022.
[Article]
AN: 2018433191
Introduction: Judicious use of antibiotics for surgical prophylaxis is important for reducing antimicrobial resistance while preventing infectious surgical complications. In the setting of pediatric distal hypospadias repairs, it is unclear if antibiotic surgical prophylaxis is beneficial.
Objective(s): The purpose of this study was to compare rates of infectious complications in pediatric subjects undergoing distal hypospadias repair who received any peri-operative antibiotics to those who did not. Study design: This was a review of a retrospective cohort from a database of individuals undergoing hypospadias repairs evaluating whether they received peri-operative or post-operative antibiotic prophylaxis and determining the rate of infectious complications in those who did compared to those who did not receive antibiotic prophylaxis. Infectious complications were defined as surgical site infection (SSI) or urinary tract infection (UTI).
Result(s): There was no significant difference in infectious complication rates between individuals who received peri-operative parenteral antibiotic prophylaxis and those who did not. All subjects with infectious complications received post-operative oral antibiotic prophylaxis. There was one instance of C. difficile infection in a subject who received peri-operative parenteral antibiotics.
Discussion(s): Reducing antibiotic utilization without increasing infectious surgical complications is important in safely reducing antimicrobial resistance. In this study of pediatric distal hypospadias repair, peri-operative antibiotics did not demonstrate a clear benefit and post-operative oral antibiotics demonstrated no benefit in preventing infectious complications. Other studies evaluating peri- and post-operative antibiotics for pediatric hypospadias repair have also failed to demonstrate a benefit for antibiotics in preventing infections. Practitioners should reconsider the use of antibiotics in this setting.
Conclusion(s): Routine antibiotic prophylaxis does not appear beneficial for preventing infectious complications following uncomplicated, stented pediatric distal hypospadias repairs.

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Publisher
Elsevier Ltd
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73.

Sociodemographic differences in opioid use and recovery following ambulatory pediatric urologic procedures.
Zhu T., Baker Z.G., Trabold M., Kelley-Quon L.I., Basin M.F., Vazirani R., Chen J., Kokorowski P.J.
Embase
Journal of Child Health Care. (no pagination), 2022. Date of Publication: 2022.
[Article]
AN: 2018868385
Our aim was to examine associations between sociodemographic factors and postoperative opioid use and recovery among pediatric patients undergoing outpatient urologic procedures. We retrospectively evaluated 831 patients undergoing ambulatory urologic procedures from 2013 to 2017 at an urban pediatric hospital. Patients were evaluated for days of opioid use and days until return to baseline behavior. Differences in outcomes by race/ethnicity, primary language, median neighborhood household income, and health insurance type were analyzed using negative binomial regression models. Overall, patients reported a median of 1.0 day (IQR: 2.0) of postoperative opioid use and 3.0 days (IQR: 6.0) of recovery time. After controlling for covariates, patients with non-English speaking parents took opioids for 26.5% (95% CI: 11.4-41.7%) longer and had 27.8% (95% CI: 8.1-51.0%) longer recovery time than patients with English-speaking parents. Hispanic patients took opioids for 27.5% (95% CI: 0.1-54.9%) longer than White patients. Patients with public insurance used opioids for 47.6% (95% CI: 5.0-107.4%) longer than privately insured patients. Non-English speaking, Hispanic, and publicly insured patients had a longer duration of postoperative opioid use than primarily English-speaking, White, and privately insured patients, respectively. Identifying these disparities is important for designing equitable postoperative care pathways.

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74.

Ultrasound-Guided Pudendal Nerve Block versus Ultrasound-Guided Dorsal Penile Nerve Block for Pediatric Distal Hypospadias Surgery.
Ozen V., Ozen N.
Embase
Urologia Internationalis. (no pagination), 2022. Date of Publication: 2022.
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AN: 2017047403
Introduction: The primary aim of the study was to use the duration until the first postoperative analgesic requirement after two different block techniques to compare the analgesic effect. The secondary aims were to compare the two methods for postoperative Children's Hospital Eastern Ontario Pain Scale (CHEOPS) scores, complications, and parental satisfaction level.
Material(s) and Method(s): This prospective, observational study was conducted with male patients aged 1-7 years in the ASA I-II group, who were scheduled for hypospadias surgery between November 2019 and April 2020. Ultrasound (US)-guided pudendal nerve block (PNB) or US-guided dorsal penile nerve block (DPNB) was administered under general anesthesia before the operation. Postoperative analgesic need, postoperative pain, complications, and parental satisfaction were noted. The STROBE checklist was followed for reporting.
Result(s): The study was conducted with 30 patients in total, divided into 15 patients receiving PNB and 15 patients receiving DPNB. The effective minimum block duration was longer in the pudendal group at 22.22 +/- 0.61 h than in the DPNB group at 22.19 +/- 0.57 h. Additional analgesic was required in 4 subjects in the pudendal group and 5 in the DPNB group. There was no statistically significant difference in terms of the variables between the two groups ($p > 0.05$).
Discussion(s): US-guided DPNB and PNB were shown to provide successful postoperative analgesia and to have similar effectiveness in pediatric patients undergoing hypospadias surgery in this first prospective study of its kind in the literature.
Conclusion(s): US-guided DPNB and PNB have been demonstrated to provide effective, safe, and long-Term postoperative analgesia in pediatric patients who have undergone hypospadias surgery. Parental satisfaction in both groups is positively influenced by the minimum postoperative analgesia requirement, the long-Term analgesic effect, and the lack of any complications.

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75.

A COMPARATIVE STUDY OF EFFECTIVENESS OF LANDMARK TECHNIQUE VS ULTRASOUND GUIDED TECHNIQUE FOR ILIOINGUINAL/ILIOHYPOGASTRIC NERVE BLOCK IN PEDIATRIC PATIENTS IN TERTIARY CARE HOSPITAL.
Deepika G., Devi A.E., Junjunuru N., Shiva P.V.
Embase
European Journal of Molecular and Clinical Medicine. 9(4) (pp 3217-3234), 2022. Date of Publication: June 2022.
[Article]
AN: 2019907294
Background, Aim and Objectives: Using an innovative anaesthetic approach, ultrasound-guided ilioinguinal and iliohypogastric nerve block, postoperative discomfort can be reduced. In a tertiary care institution, a comparison of the effectiveness of the landmark technique and the ultrasound-guided technique was made on paediatric patients undergoing ilioinguinal/iliohypogastric nerve blocks. The main goal is to analyse the effectiveness of analgesia during the intraoperative period. This is done by measuring the patient's hemodynamics at any time, including their blood pressure, heart rate, spo2, and electrocardiogram. After surgery, the pain is measured using the VAS score. Comparing the complications and the quantity of rescue analgesia in the two groups is the secondary goal.
Method(s): Included in the inclusion criteria were 60 children between the ages of 2 and 8 who met the physical status requirements of the American Society of Anesthesiologists, as well as informed agreement from the parents and approval from the institution's ethics committee. Participants in the trial were posted for elective hernia repair. Any ILIH contraindication, such as a surgical scar or deformed anatomy at the injection site, qualified as an exclusion. ASA grade III. Patients needing emergency surgery, those with bleeding disorders, sepsis, skin lesions or wounds at the proposed incision site, the parents' reluctance, or infections at the injection site. Recognised allergy to LA kids with a history of heart, lung, liver, or kidney illness. All these patients were excluded from study. Results and
Conclusion(s): In our investigation, group B participants had an ultrasound-guided 0.3ml/kg bupivacaine block of the ilioinguinal and iliohypogastric nerves, while group A participants received a 0.3kl/kg bupivacaine block of the iioinguinal and iiohypogastric nerves using the landmark technique. In this study, we discovered that Group B individuals had lower visual analogue scores, prolonged postoperative analgesia and decreased analgesic intake within the first twelve hours following surgery. Based on the results of our investigation, we discovered a unique and highly successful technique for postoperative pain treatment in inguinal hernia patients: ultrasound guided ilioinguinal and iliohypogastric nerve block utilising long acting local anaesthetic.

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76.

Analgesic Effects of Regional Analgesic Techniques in Pediatric Inguinal Surgeries: A Systematic Review and Network Meta-Analysis of Randomized Controlled Trials.
Hung T.-Y., Bai G.-H., Tsai M.-C., Lin Y.-C.
Embase
Anesthesia and analgesia. (no pagination), 2022. Date of Publication: 26 Dec 2022.
[Article]
AN: 639871207
BACKGROUND: Various regional analgesic techniques have been used in pediatric inguinal surgery to facilitate postoperative recovery. However, each technique's relative performance was undetermined owing to the lack of quantitative analysis.
METHOD(S): We systematically searched MEDLINE, Cochrane Library, EMBASE, and Web of Science for randomized controlled trials that compared regional analgesia in pediatric inguinal surgeries. After critical study screening and selection, a random-effects network meta-analysis was performed. The primary outcome was the time to the first rescue analgesic after surgery, and the secondary outcomes were the number of patients requiring rescue analgesics after surgery, postoperative pain scores, incidence of postoperative nausea and vomiting, and other adverse events.
RESULT(S): This network meta-analysis included 69 randomized controlled trials (4636 patients) that compared 10 regional analgesic techniques. Our study revealed that the quadratus lumborum and transversus abdominis plane blocks had the longest time to the first rescue analgesic after pediatric inguinal surgeries, by 7.7 hours (95% confidence interval [CI], 5.0-10.3) and 6.0 hours (95% CI, 3.9-8.2) when compared with the control group, respectively. In the subgroup involving only inguinal hernia repair, the quadratus lumborum block significantly prolonged the time to the first rescue analgesic than all other regional analgesics. In contrast, in the subgroup involving orchidopexies, only the caudal block significantly prolonged the time to the first rescue analgesic when compared with the control group (4.1 hours; 95% CI, 0.7-7.5). Wound infiltration and landmark-based ilioinguinal-iliohypogastric block had relatively poor analgesic effects than other regional analgesics. No serious adverse effects related to the regional analgesic techniques were reported in any of the included studies.
CONCLUSION(S): The quadratus lumborum and transversus abdominis plane blocks had the longest time to the first rescue analgesic and the least rescue analgesic requirement for pediatric inguinal surgeries. Specifically, the quadratus lumborum block had the longest analgesic duration in inguinal hernia repair, and the caudal block was found to be the only regional analgesia that extended the time to the first rescue analgesic in pediatric orchidopexy. Most included randomized controlled trials had some concern or a high risk of bias, and future studies should focus on providing high-quality evidence to further clarify the analgesic effects of regional analgesia for pediatric inguinal surgeries.

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77.

Parental involvement in postoperative pain management among children in a urology ward: A best practice implementation project.
Yang J.-X., Zhang W.-Y., Huang H.-H., Jiang W.-T., Zhou Y.-F., Gu Y., Xu H.-Z., Yao W.-Y., Zhang F.
Embase
Nursing open. (no pagination), 2022. Date of Publication: 25 Dec 2022.
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AN: 639859387
AIM: Postoperative pain has adverse effects on children with urological problems, including sleep disturbances, incision dehiscence, bleeding and delayed recovery. Accurate parental assessment of children's behaviours and responses could help to manage postoperative pain. We aimed to implement evidence-based practice for parental involvement in a urology ward, to increase parents' participation in children's postoperative pain management. DESIGN: The project was conducted in a paediatric urology ward using the framework and methods of the Fudan University Evidence-Based Nursing Center's Evidence-based Continuous Quality Improvement Model. METHOD(S): Fifteen audit criteria were used to represent best practice recommendations for parental involvement in postoperative pain management. A pre-implementation audit was conducted with 211 randomly sampled children and parents. Obstacles, promoting factors and key strategies were analysed, and evidence-based interventions implemented to improve compliance. A follow-up audit using the same audit criteria was conducted with 202 children and parents to assess the effect of targeted strategies on compliance with best practice. The SQUIRE guidelines were followed.
RESULT(S): At the baseline audit, compliance with the evidence-based criteria was 0%-71.5%; only five audit criteria achieved a compliance rate>60%. After best practice implementation, the follow-up audit showed compliance improvements for all criteria; compliance for three criteria improved to 100%. PATIENT OR PUBLIC CONTRIBUTION: This best practice implementation project improved parents' participation in children's postoperative pain management. The findings demonstrate how audits can promote best practice in postoperative pain management for children. Additional studies will be conducted to address children's postoperative life quality based on best practice.

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78.

Surgical Management of Pediatric Inguinal Hernia: A Systematic Review and Guideline from the European Pediatric Surgeons' Association Evidence and Guideline Committee.
Morini F., Dreuning K.M.A., Janssen Lok M.J.H., Wester T., Derikx J.P.M., Friedmacher F., Miyake H., Zhu H., Pio L., Lacher M., Sgro S., Zani A., Eaton S., Van Heurn L.W.E., Pierro A.
Embase
European Journal of Pediatric Surgery. 32(3) (pp 219-232), 2022. Date of Publication: 01 Jun 2022.
[Review]
AN: 634234937
Introduction Inguinal hernia repair represents the most common operation in childhood; however, consensus about the optimal management is lacking. Hence, recommendations for clinical practice are needed. This study assesses the available evidence and compiles recommendations on pediatric inguinal hernia. Materials and Methods The European Pediatric Surgeons' Association Evidence and Guideline Committee addressed six questions on pediatric inguinal hernia repair with the following topics: (1) open versus laparoscopic repair, (2) extraperitoneal versus transperitoneal repair, (3) contralateral exploration, (4) surgical timing, (5) anesthesia technique in preterm infants, and (6) operation urgency in girls with irreducible ovarian hernia. Systematic literature searches were performed using PubMed, MEDLINE, Embase (Ovid), and The Cochrane Library. Reviews and meta-analyses were conducted according to the Preferred Reporting Items for Systematic Reviews and Meta-analysis (PRISMA) statement. Results Seventy-two out of 5,173 articles were included, 27 in the meta-analyses. Laparoscopic repair shortens bilateral operation time compared with open repair. In preterm infants, hernia repair after neonatal intensive care unit (NICU)/hospital discharge is associated with less respiratory difficulties and recurrences, regional anesthesia is associated with a decrease of postoperative apnea and pain. The review regarding operation urgency for irreducible ovarian hernia gained insufficient evidence of low quality. Conclusion Laparoscopic repair may be beneficial for children with bilateral hernia and preterm infants may benefit using regional anesthesia and postponing surgery. However, no definite superiority was found and available evidence was of moderate-to-low quality. Evidence for other topics was less conclusive. For the optimal management of inguinal hernia repair, a tailored approach is recommended taking into account the local facilities, resources, and expertise of the medical team involved.

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79.

Elimination of Postoperative Narcotics in Infant Robotic Pyeloplasty Using Caudal Anesthesia and a Non-Narcotic Pain Pathway.
Meier K.M., Zheng A., Rollins Z.H., Asantey K.A., Shah M.D., Banooni A.B., Liss Z.J.
Embase
Journal of Endourology. 36(11) (pp 1431-1435), 2022. Date of Publication: November 2022.
[Article]
AN: 2021848078
Introduction: Research suggests that narcotic pain medications are dramatically overprescribed. We hypothesize that narcotics are unnecessary for postoperative pain control in most infants undergoing robotic pyeloplasty. In this series, we report our experience combining caudal blocks with a non-narcotic postoperative pathway as a means of eliminating postoperative narcotics after infant robotic pyeloplasty.
Method(s): We reviewed 24 consecutive patients who underwent robotic pyeloplasty by a single surgeon treated with an end-procedure caudal block followed by a non-narcotic postoperative pain pathway treated between May 2017 and May 2021. The standardized postoperative pathway consisted of an end-procedure caudal block followed by alternating intravenous acetaminophen and ketorolac. We reviewed demographics, outcomes, and unscheduled health care encounters within 30 postoperative days.
Result(s): Sixty-three percent (15/24) of patients were male and average age was 12.1 months (range 4-34 months). Fifty-eight percent (9/15) underwent surgery on the left, and 16.7% (4/24) of patients received a single postoperative dose of narcotics in the postanesthesia care unit. No patient required narcotic prescriptions at discharge or anytime thereafter. The average length of stay was 1.13 days. There was no pain-related unscheduled visits or phone calls after discharge.
Conclusion(s): This series shows that a non-narcotic standardized pain management strategy is a viable option for infants undergoing robotic pyeloplasty. Postprocedure caudal block is a good

addition to a non-narcotic pathway. In the future, we intend to expand these findings to other pediatric urologic procedures in the hope of eliminating unnecessary narcotic use.

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80.

Randomized controlled trial of NSAID prior to cystoscopic ureteral stent removal in a pediatric population.
Rove K.O., Halstead N.V., Wiesen B.M., Bielsky A.R., Campbell J.B.
Embase
Journal of Pediatric Urology. 18(5) (pp 679.e1-679.e9), 2022. Date of Publication: October 2022.
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AN: 2019805275
Introduction: Ureteral spasm, common with ureteral stents, is partially mediated by prostaglandins and may be suppressed by cyclooxygenase inhibitors like non-steroidal anti-inflammatory (NSAIDs). Practices currently vary widely for pain management in patients with ureteral stents, sometimes including opioids.
Objective(s): We aimed to determine if NSAID given prior to stent removal would reduce postoperative pain. We hypothesized there would be at least a 75% reduction in postoperative severe pain (pain score >=7) in patients receiving ibuprofen compared to placebo. Study design: We performed a double-blind, placebo-controlled randomized controlled trial on pediatric urology patients with an indwelling ureteral stent undergoing removal in the operating room from 2014 to 2019. 20 patients in each arm were needed to achieve 80% power to detect a 75% reduction in the estimated 55% incidence of severe postoperative pain (alpha = 0.05). Patients >=4 years old who had a unilateral stent placed after treatment of urolithiasis or ureteropelvic junction obstruction were randomized to NSAID or placebo in a 1:1 ratio at least 15 min prior to scheduled stent removal. Patients estimated pain using Faces Pain Scale-Revised (FPS-R) or visual analogue scale (VAS) prior to and 24 h after stent removal.
Result(s): 254 patients undergoing stent removal were assessed for eligibility, and 44 randomized patients were analyzed using intention to treat analysis. The cohorts were demographically similar and received similar anesthesia treatment. There was no significant difference in maximum post anesthesia care unit pain score (p = 0.269) or use of in-hospital opioids (p = 0.626) between the two groups. No difference was seen in the incidence of severe postoperative pain (p = 1.0), thus rejecting the hypothesis. Significant worsened postoperative pain (pain score increases of >=2 between time points) decreased from 22.7% to 13.6% between placebo and NSAID, but this did not reach significance (p = 0.410).

Discussion(s): There was no difference in postoperative pain for patients undergoing ureteral stent removal given preoperative NSAID versus placebo. The incidence of severe pain before and after stent removal was low, ranging from 4.5 to 9.1%.
Conclusion(s): Research to understand the etiology of pain after stent removal and techniques to minimize or prevent discomfort should continue in order to optimize patient outcomes.

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81.

Evaluating the role for regional analgesia in children with spina bifida: a retrospective observational study comparing the efficacy of regional versus systemic analgesia protocols following major urological surgery.
Moore R.P., Burjek N.E., Brockel M.A., Strine A.C., Acks A., Boxley P.J., Chidambaran V., Vricella G.J., Chu D.I., Sankaran-Raval M., Zee R.S., Cladis F.P., Chaudhry R., O'Reilly-Shah V.N., Ahn J.J., Rove K.O.
Embase
Regional Anesthesia and Pain Medicine. 48(1) (pp 29-36), 2022. Date of Publication: 27 Sep 2022.
[Article]
AN: 2021071277
Introduction Regional techniques are a key component of multimodal analgesia and help decrease opioid use perioperatively, but some techniques may not be suitable for all patients, such as those with spina bifida. We hypothesized peripheral regional catheters would reduce postoperative opioid use compared with no regional analgesia without increasing pain scores in pediatric patients with spina bifida undergoing major urological surgery. Methods A retrospective review of a multicenter database established for the study of enhanced recovery after surgery was performed of patients from 2009 to 2021 who underwent bladder augmentation or creation of catheterizable channels. Patients without spina bifida and those receiving epidural analgesia were excluded. Opioids were converted into morphine equivalents and normalized to patient weight. Results 158 patients with pediatric spina bifida from 7 centers were included, including 87 with and 71 without regional catheters. There were no differences in baseline patient factors. Anesthesia setup increased from median 40 min (IQR 34-51) for no regional to 64 min (IQR 40-

97) for regional catheters (p<0.01). The regional catheter group had lower median intraoperative opioid usage (0.24 vs 0.80 mg/kg morphine equivalents, p<0.01) as well as lower in-hospital postoperative opioid usage (0.05 vs 0.23 mg/kg/day morphine equivalents, p<0.01). Pain scores were not higher in the regional catheters group. Discussion Continuous regional analgesia following major urological surgery in children with spina bifida was associated with a 70% intraoperative and 78% postoperative reduction in opioids without higher pain scores. This approach should be considered for similar surgical interventions in this population. Trial registration number NCT03245242.

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82.

Ureteropelvic junction obstruction in infants: Open or minimally invasive surgery? A systematic review and meta-analysis.
Cascini V., Lauriti G., Di Renzo D., Miscia M., Lisi G.
Embase
Frontiers in Pediatrics. 10 (no pagination), 2022. Article Number: 1052440. Date of Publication: 23 Nov 2022.
[Review]
AN: 2020467104
Introduction: The historical gold standard treatment for ureteropelvic junction obstruction (UPJO) was the open Anderson-Hynes dismembered pyeloplasty (OP). Minimally invasive surgery (MIS) procedures, including laparoscopic pyeloplasty (LP) and robot-assisted laparoscopic pyeloplasty (RALP), have been reported to achieve better outcomes (i.e., decreased morbidity, reduced postoperative pain, superior esthetic results, and shortened length of hospital stay, LOS), with a success rate similar to OP. The main limitation of the MIS approach is the age and weight of patients, limiting these procedures to children >1 year. This study aims to evaluate the feasibility and benefits of MIS pyeloplasty compared to OP to surgically treat UPJO in children <1 year of age.
Material(s) and Method(s): A systematic review was independently performed by two authors. Papers comparing both techniques (MIS pyeloplasty vs. OP) in infants were included in the meta-analysis. Data (mean +/- DS or percentage) were analyzed using Rev.Man 5.4 A $p < 0.05$ was considered significant.
Result(s): Nine studies (eight retrospective and one prospective) meet the inclusion criteria. A total of 3,145 pyeloplasties have been included, with 2,859 (90.9%) OP and 286 (9.1%) MIS. Age at operation was 4.9 +/- 1.4 months in OP vs. 5.8 +/- 2.2 months in MIS, p = ns. Weight at surgery was 6.4 +/- 1.4 kg in OP vs. 6.9 +/- 1.4 kg in MIS, p = ns. Operative time was 129.4 +/- 24.1 min for OP vs. 144.0 +/- 32.3 min for MIS, $p < 0.001$. LOS was 3.2 +/- 1.9 days for OP vs. 2.2 +/- 0.9 days for MIS, $p < 0.01$. Postoperative complications were present in 10.0 +/- 12.9% of OP vs. 10.9 +/- 11.6% in MIS, p = ns. Failure of surgery was 5.2 +/- 3.5% for OP vs. 4.2 +/- 3.3% for MIS, p = ns.
Conclusion(s): The development of miniaturized instruments and technical modifications has made MIS feasible and safe in infants and small children. MIS presented a longer operative time than OP. However, MIS seemed effective for treating UPJO in infants, showing shortened LOS compared to OP. No differences have been reported with regard to the incidence of postoperative complications and failure of pyeloplasty. Given the low quality of evidence of the meta-analysis according to the GRADE methodology, we would suggest limiting MIS procedures in infants to only those high-volume centers with experienced surgeons.

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83.

Efficacy of three types of circumcision for children in the treatment of phimosis: A retrospective study.
Zhu D., Zhu H.
Embase
Medicine. 101(48) (pp e32198), 2022. Date of Publication: 02 Dec 2022.
[Article]
AN: 639735848
Phimosis is a common condition of the urinary system in children and often requires surgical treatment. However, the optimal method of circumcision for children has not been determined. Herein, we analyzed the efficacy of 3 circumcision methods for children with phimosis. A retrospective analysis of 112 cases of pediatric phimosis after circumcision was conducted at our hospital. Among them, 36 cases were subjected to conventional operation (group A), 43 cases to ring circumcision (group B), and 33 cases to suturing device circumcision (group C). The duration of operation, amount of bleeding, pain, complications, healing time, and the satisfaction of the guardians were calculated. The operation time of group B and C was (6.26 +/- 1.31) min and (7.67 +/- 1.29) min, respectively, which was shorter than group A (27.42 +/- 2.42) min (P < .05); besides, group A had the most blood loss volume, (9.67 +/- 1.67) mL, and group B was the least (1.26 +/- 0.44) mL (P < .05); group B had the strongest postoperative pain (4.05 +/- 0.37), the longest pain time (6.84 +/- 1.29) days, and the longest healing time (21.84 +/- 4.23) days (P < .05). Postoperative complications were lowest in group C (11.11% vs 20.93% vs 6.06%), satisfaction of guardians was highest in group C (86.11% vs 85.27% vs 89.99%), but the difference was not statistically significant (P > .05). Three types of surgical procedures present with advantages and disadvantages. The conventional surgery led to longer operation time and more bleeding but did not require special medical equipment and was easy to carry out; ring surgery had the shortest operation time, the least bleeding, accompanied by the longest recovery time and pain duration; the complications of the suturing device were the least, the parents had the highest degree of satisfaction, however, it also needs a specific suturing device. Therefore, each type had its distinctive characteristics and may be flexibly selected based on their own conditions.

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84.

Efficacy and safety of non-pharmacological interventions for neonatal pain: an overview of systematic reviews.
Shen Q., Huang Z., Leng H., Luo X., Zheng X.
Embase
BMJ Open. 12(9) (no pagination), 2022. Article Number: e062296. Date of Publication: 28 Sep 2022.
[Article]
AN: 2021067100
Objectives To synthesise current evidence from systematic reviews (SRs) regarding the efficacy and safety of non-pharmacological interventions to prevent and treat pain in newborn infants. Design Overview of SRs. Data sources We searched PubMed, Embase, Cochrane Library, Web of Science, CINAHL, Chinese National Knowledge Infrastructure (CNKI), Chinese Biomedical Literature Database (CBM), Wanfang Database, Chinese Science and Technology Periodical Database (VIP) and Google Scholar to identify all relevant SRs published in the last 5 years. Eligibility criteria for selecting studies We included SRs that evaluated the efficacy and safety of non-pharmacological interventions for neonatal pain. Data extraction and synthesis Two reviewers independently extracted the data, assessed the methodological quality using a Measurement Tool to Assess Systematic Reviews (AMSTAR) 2 and graded the evidence quality with the Grading of Recommendations Assessment, Development and Evaluation (GRADE). Results A total of 29 SRs were included in this overview, of which 28 focused on procedural pain and only 1 focused on postoperative pain. Based on AMSTAR 2, seven reviews were found to be of high quality, eight of moderate quality', five of low quality' and nine of critically low quality'. The GRADE results suggested that facilitated tucking, kangaroo care, sweet solutions, familiar odour or combined non-pharmacological interventions, such as a combination of sucrose and non-nutritive sucking, were effective and safe in reducing pain from medical procedures in neonates. However, sucrose alone was less effective than local anaesthesia or a combination of the two during circumcision. Conclusions Facilitated tucking, small volumes of sweet solutions, kangaroo care and familiar odour were recommended. Scientific implementation strategies should be developed to promote the clinical use of these effective non-pharmacological interventions. Meanwhile, further rigorous trials and SRs are needed to identify the best non-pharmacological approaches for pain from common surgery and illnesses in neonates. PROSPERO registration number CRD42021292583.

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85.

Transversus abdominis plane block with different bupivacaine concentrations in children undergoing unilateral inguinal hernia repair: a single-blind randomized clinical trial.
Karadeniz M.S., Atasever A.G., Salviz E.A., Bingul E.S., Ciftci H.S., Dincer M.B., Sungur M.O.
Embase
BMC Anesthesiology. 22(1) (no pagination), 2022. Article Number: 355. Date of Publication: December 2022.
[Article]
AN: 2020183979
Background: Current knowledge on the ideal local anesthetic concentration for the ultrasound-guided transversus abdominis plane block (TAPB) in pediatrics is scarce. The purpose of this study is to compare the efficacy of US-guided TAPB at two different concentrations of bupivacaine in pediatrics undergoing unilateral inguinal hernia repair.
Method(s): After random allocation, 74 children aged 1-8 were randomized to receive US-guided TAPB by using 1 mg.kg- 1 bupivacaine as either 0,25% (0,4 ml.kg- 1) (Group 1) or 0,125% (0,8 ml.kg- 1) (Group 2) concentration. All blocks were performed under general anesthesia, immediately after the induction, unilaterally with a lateral approach. All subjects received intravenous 15 mg/kg paracetamol 0.15 mg/kg dexamethasone and 0.1 mg/kg ondansetron intraoperatively. The primary outcome was the efficacy which is assessed by postoperative FLACC behavioral pain assessment score at 15', 30', 45', 1 h, 2 h, 6 h, and 24 h. The secondary outcomes were to assess the total dose of rescue analgesic consumption, length of hospital stay, the incidence of side effects, complications and satisfaction levels of the patients' parents and the surgeons.
Result(s): Sixty-four children were recruited for the study. Postoperative pain scores were equal between the two groups. There was no need for a rescue analgesic in any group after the postoperative 6thhour. No local or systemic complication or side effect related to anesthesia or surgery was reported.
Conclusion(s): TAPB using 1 mg.kg- 1 bupivacaine administered as either high volume/low concentration or low volume/high concentration was providing both adequate analgesia and no side effects. Trial registration: This trial was retrospectively registered at Clinicaltrals.gov, NCT04202367.

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36411426 [https://www.ncbi.nlm.nih.gov/pubmed/?term=36411426]
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86.

Pediatric Postoperative Pain Control With Quadratus Lumborum Block and Dexamethasone in Two Routes With Bupivacaine: A Prospective Randomized Controlled Clinical Trial.
Arafa S.K., Elsayed A.A., Hagras A.M., Shama A.A.A.
Embase
Pain Physician. 25(7) (pp E987-E998), 2022. Date of Publication: October 2022.
[Article]
AN: 2018374226
Background: Ultrasound-guided Quadratus Lumborum block (QLB) is a regional analgesia approach that has been reported to provide effective post-operative pain relief for both abdominal and retroperitoneal surgery. Bupivacaine is the most often used and well documented local anesthetic medication in children. Dexamethasone is a systemic glucocorticoid that is often used to minimize postoperative nausea, vomiting, and pain to improve recovery quality after surgery.
Objective(s): To evaluate postoperative analgesia of QLB in pediatric patients undergoing renal surgeries by the addition of dexamethasone to bupivacaine compared to intravenous administration.
Study Design: A prospective, randomized, controlled clinical trial.
Setting(s): Pediatric surgery unit in a university hospital.
Method(s): One hundred and five patients (6-12 years old) scheduled for renal surgeries were randomly allocated into 3 groups, with 35 patients in each group. Randomization was based on computer-generated codes. The groups were DEX1 (QLB with IV dexamethasone group), DEX2 (QLB dexamethasone group), and QLB CONTROL (QLB alone). The 1st time for rescue analgesia request, total morphine consumption, Pediatric Objective Pain Scale (POPS), and parents' satisfaction score were measured in 24 hours follow-up to evaluate postoperative pain control.
Result(s): The time to 1st rescue analgesics request (hours), total morphine consumption (mg), and the parents' satisfaction scores were much better in groups DEX1 and DEX2 as compared to group CONTROL with statistical significance. However, group DEX2 was better than DEX1 in the previous outcomes but without statistical significance. In respect, the pediatric objective pain scale was much lower with a significant difference in groups DEX1and DEX2 in comparison with group CONTROL up to 18 hours postoperatively.
Limitation(s): Difficult to assess the block as all children were sedated, plus this was a unilateral surgical procedure with limited surgical incision, so the effect of QLB needed to be studied when there is a bilateral surgical procedure.
Conclusion(s): Dexamethasone may be more effective when added to bupivacaine than when given systemically in analgesic effects without any impact on the other secondary pain-related outcomes. Dexamethasone as an adjuvant to bupivacaine has a marked hand on prolongation of the postoperative duration of analgesia, less request for rescue analgesia, and fewer side effects as compared to bupivacaine if used as a sole agent in QLB.

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American Society of Interventional Pain Physicians
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https://clinicaltrials.gov/show/NCT0496381
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87.

Ultrasound-guided transverse abdominis plane block, ilioinguinal/iliohypogastric nerve block, and quadratus lumborum block for elective open inguinal hernia repair in children: A randomized controlled trial.
Priyadarshini K., Behera B.K., Tripathy B.B., Misra S.
Embase
Regional Anesthesia and Pain Medicine. (no pagination), 2022. Article Number: 103201. Date of Publication: 2022.
[Article]
AN: 2021254556
Background and objectives: Ultrasound-guided ilioinguinal/iliohypogastric (II/IH) nerve blocks and transverse abdominis plane (TAP) blocks are widely used for postoperative analgesia in children undergoing inguinal hernia repair (IHR). Quadratus lumborum block (QLB) provides analgesia for both upper and lower abdominal surgery. Very few randomized controlled trials in children have assessed the efficacy of QLB in IHR. Thus, this study was designed to find the comparative effectiveness of QLB versus TAP and II/IH blocks in children undergoing open IHR.
Material(s) and Method(s): Sixty children scheduled for open IHR were randomly allocated in groups of 20 to receive either ultrasound-guided TAP block with 0.4 mL/kg of 0.25% ropivacaine, II/IH nerve block with 0.2 mL/kg of 0.25% ropivacaine, or QLB with 0.4 mL/kg of 0.25% ropivacaine. Anesthesia was standardized for all patients, and an experienced anesthesiologist performed the blocks after anesthesia induction.
Primary Outcome: Time to first analgesia.
Secondary Outcomes: Postoperative pain scores, intraoperative and postoperative opioid consumption, cumulative paracetamol usage, block performance time, and block-related complications.
Result(s): The median time to first analgesia was 360 (120), 480 (240), and 720 (240) min in the TAP block, II/IH block, and QLB groups, respectively; and was significantly longer in the QLB versus TAP ($p<0.001$) and II/IH ($p<0.001$) groups. The time to first analgesia was not significantly different between the TAP and II/IH groups ($p=0.596$). The mean postoperative tramadol consumption was 11 (12.7), 4 (7.16), and 3 (8) mg in the TAP, II/IH, and QLB groups, respectively ($p=0.023$); and it was lowest in the QLB group. No significant differences were found between the groups for other secondary outcomes.
Conclusion(s): QLB provides a prolonged period of analgesia and leads to decreased opioid consumption compared with TAP blocks and II/IH nerve blocks in children undergoing open IHR.
Trial registration number: CTRI/2019/09/021377.

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Publisher
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88.

Transvaginal approach for rectovaginal fistula: experience from a single institution.
Zeng Y., He Y., Li G., Zhi J., Ren B., Lai S., Liu Z., Wang X.
Embase
Updates in surgery. 74(6) (pp 1861-1870), 2022. Date of Publication: 01 Dec 2022.
[Article]
AN: 639113808
Transvaginal (TV) repair, featuring its feasibility, effectiveness, safety, and technically less demandingness, is one of the surgical approaches for management of rectovaginal fistula (RVF). However, there are limited numbers of publications available on the transvaginal approach for RVF repair. To this end, the purpose of this study is to evaluate the preliminary outcomes of the transvaginal approach performed by the team, and to further assess its feasibility, safety and effectiveness in the management of RVF. A retrospective analysis was conducted at a single institution. Patients with RVF who had undergone three transvaginal surgical techniques, i.e. transvaginal fistulectomy and stratified suture, transvaginal flip and ligation fistula tract and transvaginal fistula stapled closure were included. Besides, the demographics, operative data, postoperative complications and follow-up outcomes of the patients were collected prospectively. A total of 49 female patients (mean age, 35.76+/-13.97 years) underwent transvaginal approach, 42 of which were followed up with a median follow-up of 26 months (range 3-82 months), and 29 had closure of the fistula (successful closure rate of 59.1%). The successful closure rates were only significantly different between previous repair times (p=0.031), and several minor complications including postoperative pain (n=3), constipation (n=1), and lower urinary tract infection (n=1) were observed. Symptomatic improvement was reported in all patients with failed closure. Transvaginal approach for RVF repair is effective, safe, and feasible, and is therefore considered an alternative to transrectal advancement flap for low and mid-level traumatic RVF with normal sphincter function. With the advantage of better surgical access, transvaginal approach is recognized as the initial choice for the surgical repair of RVF.

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89.

Randomized controlled trial (RCT) comparing ultrasound-guided pudendal nerve block with ultrasound-guided penile nerve block for analgesia during pediatric circumcision.
Boisvert-Moreau F., Turcotte B., Albert N., Singbo N., Moore K., Boivin A.
Embase
Regional anesthesia and pain medicine. (no pagination), 2022. Date of Publication: 17 Nov 2022.
[Article]

AN: 639559262
INTRODUCTION: Optimal analgesia for circumcision is still debated. The dorsal penile nerve block has been shown to be superior to topical and caudal analgesia. Recently, the ultrasound-guided pudendal nerve block (group pudendal) has been popularized. This randomized, blinded clinical trial compared group pudendal with ultrasound-guided dorsal penile nerve block (group penile) under general anesthesia for pediatric circumcision.
METHOD(S): Prepubertal males aged 1-12 years undergoing elective circumcision were randomized to either group. The primary outcome was postoperative face, legs, activity, cry, consolability (FLACC) scores. Our secondary outcomes included parent's postoperative pain measure, analgesic consumption during the first 24 hours, surgeon's and parent's satisfaction, time to perform the block, hemodynamic changes intraoperatively and total time in postanesthesia care unit and until discharge.
RESULT(S): A total of 155 patients were included for analysis (77 in group pudendal and 78 in group penile). Mean age was 7.3 years old. FLACC scores were not statistically different between groups (p=0.19-0.97). Surgeon satisfaction was higher with group pudendal (90.8% vs 56.6% optimal, p<0.01). Intraoperative hemodynamic changes (>20% rise of heart rate or blood pressure) were higher in group pudendal (33.8% vs 9.0%, p<0.01) as was intraoperative fentanyl use (1.3 vs 1.0 mug/kg, p<0.01). Other secondary outcomes were not statistically different.
DISCUSSION: Both ultrasound-guided blocks, performed under general anesthesia, provide equivalent postoperative analgesia for pediatric circumcision as evidenced by low pain scores and opioid consumption. Surgeon satisfaction was higher in the pudendal group. TRIAL REGISTRATION NUMBER: NCT03914365.

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90.

A Comparison Between Caudal Epidural Analgesia and Paracetamol Suppository in Relieving Pain after Inguinal Hernia Repair in Pediatric Age Group.
Kamil A.T., Mahdi F.A.
Embase
Medico-Legal Update. 22(4) (pp 1-7), 2022. Date of Publication: October-December 2022.
[Article]
AN: 2018449227

Background: the control of postoperative pain is important in children, and poor pain control leads to organ dysfunction and behavioral problem. Aim of study: we compare the analgesic effect of bupivacaine by caudal block root and acetaminophen suppository on postoperative pain in pediatric inguinal hernial repair surgery. Patient and Methods: A prospective, randomized, controlled trail of 40 children, aged between (1-7 years), ASA grade I-II, scheduled for elective day case unilateral inguinal surgery. For all the patients included in this study, a standardized controlled anesthetic protocol was used. Preoperatively the patients were randomized into two groups according to the operation waiting lists. group 1 included (18) patients who received single-shot caudal block with (1ml/kg) of 25% bupivacaine preoperatively after induction of anesthesia by the anesthetist, group 2 included (22) patients who received (15-20 mg/kg) acetaminophen suppository.
Result(s): The number of patients (who had first three hours free of pain); was significantly higher in the Caudal group than those of the other group. Patients of the Caudal group; needed significantly a longer duration of time for the first analgesic drug. Patients of the Caudal group; had significantly a lower (Face, Legs, Activity, Cry, Consolability scale) in (1/2, 1, and 2 hours) time intervals of the study.
Conclusion(s): Caudal anesthesia with bupivacaine has better painless period postoperatively.

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91.

Trends in opioid and nonsteroidal anti-inflammatory (NSAID) usage in children undergoing common urinary tract reconstruction: A large, single-institutional analysis.
Mittal S., Eftekharzadeh S., Aghababian A., Shah J., Fischer K., Weaver J., Tan C., Plachter N., Long C., Weiss D., Zaontz M., Kolon T., Zderic S., Canning D., Van Batavia J., Shukla A., Srinivasan A.
Embase
Journal of Pediatric Urology. 18(4) (pp 501.e1-501.e7), 2022. Date of Publication: August 2022.
[Article]
AN: 2019140136
Introduction and objective: Opioid stewardship is recognized as a critical clinical priority. We previously reported marked reductions in narcotic administration after implementation of an opioid reduction protocol for pediatric ambulatory urologic surgery. We hypothesize that a decrease in post-operative and discharge opioid administration will not increase short-term adverse events.
Study design: All pediatric patients undergoing open or robot-assisted laparoscopic pyeloplasty or ureteral reimplantation between 2015 and 2019 were included. Patients' demographics, opioid and NSAID administration, urology or pain-related emergency department (ED) visits, readmissions, and reoperations within 30 days of surgery, were aggregated.
Result(s): 438 patients, with a median age of 3.5 years (IQR 1.5-8.3) at the time of surgery, met the inclusion criteria. Annual rates of inpatient opioid administration and prescriptions decreased significantly over the study period, while rates of intra-operative, inpatient, and prescribed NSAIDs significantly increased. There was no significant difference in the occurrence of ED visits, readmissions, or reoperations within 30 days of surgery between patients who received an opioid

prescription and those who did not. Multivariate regression showed that patients who did not receive an opioid prescription at discharge were found to be at a lower risk for unplanned encounters including ED visits, readmissions, or reoperations (OR:0.5, 95%CI: 0.2-0.9, p = 0.04). Discussion(s): The present study shows the decreasing trend in inpatient opioid administration and opioid prescription after discharge, when accompanied by an increase NSAID administration, does not result in a significant change in rates of unplanned encounters and complications, similar to results from previous studies on non-urological and ambulatory urological surgeries. Conclusion(s): Non-opioid pain control after major pediatric urologic reconstruction is safe and effective. We found that a reduction in opioid administration can be associated with a reduced risk of unplanned ED visits, readmissions, or reoperations. Further investigations are required to corroborate this finding.[Formula presented]

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92.

A BURST-BAUS consensus document for best practice in the conduct of scrotal exploration for suspected testicular torsion: the Finding Consensus for Orchidopexy in Torsion (FIX-IT) study.
Clement K.D., Light A., Asif A., Chan V.W.-S., Khadhouri S., Shah T.T., Banks F., Dorkin T., Driver C.P., During V., Fraser N., Johnston M.J., Lucky M., Modgil V., Muneer A., Parnham A., Pearce I., Shabbir M., Shenoy M., Summerton D.J., Undre S., Williams A., MacLennan S., Kasivisvanathan V., Coward M., Sarikaya S., Emkes J., Jury R.
Embase
BJU International. 130(5) (pp 662-670), 2022. Date of Publication: November 2022.
[Article]
AN: 2018049796
Objectives: To produce a best practice consensus guideline for the conduct of scrotal exploration for suspected testicular torsion using formal consensus methodology.
Material(s) and Method(s): A panel of 16 expert urologists, representing adult, paediatric, general and andrological urology used the RAND Corporation / University of California, Los Angeles (RAND/UCLA) Appropriateness Consensus Methodology to score a 184-statement pre-meeting

questionnaire on the conduct of scrotal exploration for suspected testicular torsion. The collated responses were presented at a face-to-face online meeting and each item was rescored anonymously after a group discussion, facilitated by an independent chair with expertise in consensus methodology. Items were scored for agreement and consensus and the items scored with consensus were used to derive a set of best practice guidelines.
Result(s): Statements scored with consensus increased from Round 1 (122/184, 66.3%) to Round 2 (149/200, 74.5%). Recommendations were generated in 10 categories: consent; assessment under anaesthetic; initial incision; intra-operative decision making; fixation; medical photography; closure; operation note; logistics; and follow-up after scrotal exploration. Our statements assume that the decision to operate has already been made. Key recommendations in the consent process included discussion of the possibility of orchidectomy and the possibility of subsequent infection of the affected testis or wound requiring antibiotic therapy. If after the examination under anaesthesia, the index of suspicion of testicular torsion is lower than previously thought, then the surgeon should still proceed to scrotal exploration as planned. A flow chart guiding decision making dependent on intra-operative findings has been designed. If no torsion is present on exploration and bell clapper deformity is absent, the testis should not be fixed. When fixing a testis using sutures, a three- or four-point method is acceptable and non-absorbable sutures are preferred.
Conclusion(s): We have produced consensus recommendations to inform best practice in the conduct of scrotal exploration for suspected testicular torsion.

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93.

Surgical treatment for chronic pain after inguinal hernia repair: a systematic literature review.
Beel E., Berrevoet F.
Embase
Langenbeck's Archives of Surgery. 407(2) (pp 541-548), 2022. Date of Publication: March 2022. [Review]
AN: 2013600086
Purpose: Chronic postoperative inguinal pain (CPIP) is a frequent complication after inguinal surgery with a significant decrease in quality of life. There is still no clear algorithm regarding surgical treatment. The aim of this systematic review was to provide an overview on the principles and outcome of surgical interventions for CPIP based on the available literature.
Material(s) and Method(s): A literature search was performed using the databases PubMed and SCOPUS following the PRISMA statement. Used Mesh terms and keywords were "postoperative pain," "chronic pain," "inguinal hernia," and "surgical treatment." All articles were reviewed regarding surgical technique and outcome. MINORS criteria for the assessment of the methodological quality of non-randomized surgical studies were applied.
Result(s): Eighteen articles, of which 17 cohort studies and one randomized controlled trial (RCT), described the surgical management of CPIP. Selective as well as triple neurectomy, often in combination with mesh removal and removal of suture material, was performed. Success rate, defined as significant or complete relief of pain, ranged from 33 until 100%, with most articles reaching success rates above 70%, showing a clear advantage of surgical therapy for chronic pain.
Conclusion(s): The use of surgical triple neurectomy seems effective and helpful in a high percentage of patients with CPIP. Surgical treatment should only be considered after adequate preoperative diagnostic evaluation of which the dermatome sensory mapping seems a useful tool for detailed neurophysiological assessment of patients with persistent post-herniorrhaphy pain undergoing remedial neurectomy.

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94.

Laparoscopic Hydrocelectomy of Encysted Hydrocele of the Canal of Nuck with High Ligation in Children or Iliopubic Tract Repair in Adults.
Lee S.R.
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Journal of Laparoendoscopic and Advanced Surgical Techniques. 32(6) (pp 684-689), 2022. Date of Publication: 01 Jun 2022.
[Article]
AN: 638202816
Background: Encysted hydrocele of the canal of Nuck (EHCN) is homologous to spermatic cord hydrocele in males. EHCN causes swelling in the inguinal region and should be considered in the differential diagnosis of inguinal hernias and masses in females. Complete excision and internal inguinal ring closure are the recommended treatments for symptomatic EHCN. In this study, we aimed at evaluating the safety and feasibility of laparoscopic hydrocelectomy, as well as age-appropriate procedures for EHCN.
Material(s) and Method(s): The medical records of 161 female adults and children, who underwent laparoscopic transabdominal hydrocelectomy from January 2014 to December 2020 at a single institution, were reviewed retrospectively and symptoms, location of EHCN, type of fluid in EHCN, postoperative complications, recurrence, and operating time were analyzed. Laparoscopic hydrocelectomy was performed and the internal inguinal ring was closed with high ligation in children and iliopubic tract repair (IPTR) in adults.
Result(s): Fifty-two pediatric (age 2-11 years) and 109 adult (age 21-51 years) female patients were included. More adult patients had inguinal pain (34.9%, 38/109) compared with children (3.8% 2/52) (P <.001). More EHCNs were located in the inguinal canal than protruding into the abdominal cavity in both groups. Regarding the fluid characteristics, hemorrhagic and inflammatory hydroceles were more common in adults than in children (P <.001). There were no serious complications, neither recurrence nor chronic pain was observed in either group except for a surgical-site hematoma in 1 adult patient.
Conclusion(s): Laparoscopic hydrocelectomy together with additional age-appropriate procedures, including high ligation in children and IPTR in adults, is a safe and feasible method for treating EHCN.

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Mary Ann Liebert Inc.
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95.

Atlantoaxial Dislocation: Surgical Outcome following Anterior Retropharyngeal Approach to Odontoid with or without Fixation.
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Embase
Indian Journal of Neurosurgery. 11(1) (pp 13-18), 2022. Date of Publication: 01 Mar 2022.
[Article]
AN: 635026039
Introduction Atlantoaxial dislocation (AAD) refers to a loss of stability between the atlas and axis vertebra. The conventional transoral approach and the anterior retropharyngeal approach (ARPA) are adequate for the upper cervical vertebral segments. This study was undertaken to evaluate the usefulness of the ARPA to the odontoid in patients of AAD. Materials and Methods The study was undertaken on 20 patients admitted in Nil Ratan Sircar Medical College and Hospital, Kolkata, India, with functional disability secondary to AAD. These patients underwent surgery through ARPA to odontoid with or without fixation. Patients were analyzed between October 2014 and September 2016. Results Maximum number of patients belonged to third decade of life. The male to female ratio was 1.5. The mean duration of symptoms was 10.86 months. Weakness of the upper and lower limbs predominated. About 65% patients had axial neck pain. Nine patients (45%) in total had difficulty in either bowel or bladder. Five patients presented with fracture odontoid and pannus formation of the odontoid process, while six had basilar invagination. One patient underwent anterior odontoid screw fixation and the other 19 patients underwent anterior retropharyngeal odontoidectomy with posterior fixation. Two patients expired in the present study. Most of the patients had improvement in Nurick grade during follow-up. Five patients had transient throat pain and dysphagia. Three patients had superficial surgical site infection. One patient had postoperative cerebrospinal fluid leak. Conclusion The ARPA to odontoid is a feasible approach for decompression and fixation of the odontoid in AAD cases.

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Publisher
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96.

Compare the Outcomes of Laparotomy Versus Laparostomy Tube in Neonates Presented with Pneumoperitoneum.
Pandit G.S., Pandit R.K., Mahmood F., Burki N., Abbassi R.N., Al Zahra F., Iqbal A., Akhtar N.
Embase
Pakistan Journal of Medical and Health Sciences. 16(7) (pp 623-625), 2022. Date of Publication: July 2022.
[Article]
AN: 2020322016
Objective: The purpose of this study is to compare the outcomes of laparotomy versuslaparostomy tube in neonates presented with pneumoperitoneum.
Study Design: Retrospective study Place and Duration: Children Hospital, Pakistan Institute of Medical Sciences PIMS Islamabad. Jan 2021-Dec 2021 Methods: There were 130 neonates of both genders were presented in this study. All the included neonates had pneumoperitoneum and admitted for surgery of abdomen. Detailed demographics of enrolled cases were recorded after taking informed written consent. Patients were equally divided in two groups. Group A received laparotomy among 65 patients and group B received laparostomy tube (conservative management) among 65 patients. Outcomes among both groups were assessed and compared in terms of efficacy, hospital stay, complications and pain score by visual analog score.
Result(s): Majority of the neonates were males 78 (60%) and 52 (40%) neonates were females. Most common symptom was abdominal and scrotal distension, followed by vomiting, cyanosis, respiratory distress and tachypnea.Efficacy of group B was found among 55 (84.6%) cases, 6 cases required laparotomy and 4 patients were died because of sepsis. Hospital stay was lower in group B 3.9+/-10.74 days as compared to group A 6.2+/-11.41 days. Post-operative lower pain score was observed in group B 0.9+/-1.66 as compared to group A 4.2+/- 2.53. Complications were also higher in group A found in 10 (15.4%) cases as compared to group B in 4 (6.2%) cases.
Conclusion(s): We concluded in this study that use of laparostomy tube among neonates with pneumoperitoneum was equally affective and useful in terms of success rate while hospital stay, and complications were lower as compared to laparotomy group.

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Publisher
Lahore Medical And Dental College
Year of Publication
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97.

An enhanced recovery after surgery protocol in children who undergo nephrectomy for Wilms tumor safely shortens hospital stay.
Moon J.K., Hwang R., Balis F.M., Mattei P.
Embase
Journal of Pediatric Surgery. 57(10) (pp 259-265), 2022. Date of Publication: October 2022.
[Article]
AN: 2018994878
Background: Pediatric unilateral renal tumors in the US are treated with upfront nephrectomy and surgical staging. We applied enhanced recovery after surgery (ERAS) principles in care of children after Wilms nephrectomy.
Method(s): We reviewed records of pediatric unilateral nephrectomies for Wilms tumors, and analyzed tumor stage, surgical approach, length of operation, use of anesthesia adjuncts and catheters, diet advancement, hospital length of stay (LOS), and complications. Our ERAS protocol includes: parental education regarding discharge criteria and anticipated LOS, avoiding thoraco abdominal incisions, avoiding routine nasogastric tubes, clear liquids starting day of surgery, minimizing opiates, routine IV ketorolac use, and avoiding routine ICU stay. We examined the effects of our protocol on postoperative hospital LOS and complication rates.
Result(s): Sixty six children (31 boys, mean age 3.8y, range 0-11.9) underwent unilateral total nephrectomy for Wilms tumor. Mean nephrectomy duration was 2.7 h. Post operatively, seven (11%) had temporary gastric tubes and 24 (36%) had epidural catheters. Ten (15%) recovered in the ICU. Patients were given regular diets mean of 1.9 days post op. Mean LOS was 3.7 days, with 56% of patients being discharged within 2-3 days. Presence of tumor thrombus, longer epidural catheter duration, delayed diet advancement, and total IV narcotic usage were associated with longer LOS. Routine use of IV ketorolac was associated with shorter LOS.
Conclusion(s): Use of an ERAS protocol in children undergoing nephrectomy for Wilms tumor is safe, resulting in rapid return to regular diet and compared to the published literature, shorter postoperative LOS without an increase in complications or return to ED/OR.
Level of Evidence: Level III

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Year of Publication
2022

98.

Comparative Study of Percutaneous Cystolithotripsy Versus Suprapubic Cystolithotomy.
Kumar K., Das D.K., Singh A.

Embase
European Journal of Molecular and Clinical Medicine. 9(3) (pp 10560-10566), 2022. Date of Publication: December 2022.
[Article]
AN: 2018900587
Objectives: To describe our experience in the management of urinary bladder stone, comparing the outcome of percutaneous suprapubic cystolithotrispy with open cystolithotomy Methodology: comparative study. Place and duration of the study: patients with urinary bladder stone attending department of surgery and Patna medical college and Hospital, patna. Study duration of one year. patients (33 male and 7 female), from 3-70 years of age were enrolled in the study. The size of the stones range from 30mm to 50mm. patients were divided in two equal groups, group 1 and 2. Group 1 submitted for percutaneous suprapubic cystolithotripsy and group 2 for open cystolithotomy. The procedure was done under general or spinal anesthesia.
Result(s): Mean of wound length in group 1 was 16.15mm(SD2.8) and 36.30mm(SD3.2) in group 2, p value <0.01. complete clearance of stone was achieved in all cases of group 2 whereas in group 1 patients complete clearance was noted in sixteen(80%) cases, P value0.106. transient hematuria occured in seven(35%) patients in group 1, while in group 2 only two(10%) patients developed hematuria, p value (0.127). Postoperative fever was noted in eight(40%) patients and in one(5%) patient in group1 and 2 respectively, p value0.021. Postoperative pain that require parenteral analgesia in group 1 were two(10%) and in seven(35%) patients in group 2, p value 0.127.
Conclusion(s): percutaneous suprapubic cystolithotripsy is an efficient, safe, minimally invasive and cost effective method.

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99.

Cross Sectional Study of Bile Bacteriology in Calculus Disease of Gall Bladder and their Sensitivity Pattern.
Kumar A., Singh N., Kumar R.
Embase
European Journal of Molecular and Clinical Medicine. 9(3) (pp 10123-10129), 2022. Date of Publication: December 2022.
[Article]
AN: 2018900532
Background: Gallbladder disease is the commonest surgical problem and cholecystectomy is the most frequently performed operation. In spite of modern standards of pre-operative preparation and refinements in anesthetic and operative techniques, post-operative wound infections occur in quite a number of patients. With introduction of newer and costlier antibiotics for preventing post-operative wound infection1.
Method(s): 139 patients with gallstone disease who undergone cholecystectomy in All india institute of medical sciences Patna. Data related to the objectives of the study were collected. Adult patients undergoing elective or emergency cholecystectomy were taken for the study.

clinical examination and underwent various investigations including complete blood counts, liver function tests, renal function tests, ECG, X-ray and ultrasonography.
Result(s): Most of the patients undergoing cholecystectomy were in the mean age group of 45- 54 years, with ages ranging between 15 to 77 years, and this is consistent with the observations made by Ferzli (1991)5. In our series, females (105) outnumbered the males (34). This indicates a higher incidence of the gallbladder stone in females as compared to males in the respective age groups6.
Conclusion(s): Positive bile culture was a common finding in patients with acute cholecystitis in this study. Escherichia coli are one of the most common isolated bacteria followed by Pseudomonas aeruginosa and Staphylococcus aureus. The resistance to second- generation cephalosporins has increased while third and fourth-generation cephalosporins show better promise and may be used as the first line of preoperative prophylaxis in operations for gallbladder stone disease.

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100.

Lichtenstein Repair of Inguinal Hernia-Post Operative Complications.
Gandhi K.O., Deshmukh M., Nandagawali P., Rai V.
Embase
European Journal of Molecular and Clinical Medicine. 9(3) (pp 9850-9858), 2022. Date of Publication: December 2022.
[Article]
AN: 2018717521
Background: Inguinal hernia is one of the commonest surgical problems encountered by surgeons worldwide, thus is the most evolving topic even today for better results of its repair. The main aim of surgeon is to lower the recurrence rate. Lichtenstein technique has opened a new era with a very low recurrence rate even in the hands of young or budding surgeons. Hence the present study was undertaken to assess the outcome of inguinal hernia repair by Lichtenstein technique.
Method(s): A total of 80 cases underwent Lichtenstein repair using Polypropylene mesh including 99% males and 1% female were studied. The clinical profile of patients, post-operative pain, time required to return to basic activity and time required to return to work, post-operative complications were noted. All cases were followed up post-operatively for 2 years.
Result(s): Out of 80 patients, 91% were unilateral, 9% were bilateral, 65% were indirect, 29% were direct and 6% were pantaloon hernia. Mean operative time was 68.34 min. Resumption of routine activities was within 24 hours post-operatively and mean time taken for return to work was 9.36 days. Post-operative pain was seen in 82.5% of cases. Mean pain score was high on post-operative day 1 (2.62), which was decreased on post-operative day-7 (0.8) then post-operative day-30 (0.21). The commonest early post-operative complications was suture site infection (9%) and long term complications was chronic Inguino-dynia (11.42%) with no recurrence.
Conclusion(s): Lichtenstein technique of hernia repair is safe, simple to perform with minimum postoperative morbidity, early recovery, less hospital stay and very low recurrence rate.

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Year of Publication
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101.

Application Effect of Combining Image-Text Communication-Based Healthcare Education with Shifting of Attention on Child Patients Undergoing Inguinal Hernia Repair under General Anesthesia.
Chen S., Liang W., Wang S., Jia Y.
Embase
Contrast Media and Molecular Imaging. 2022 (no pagination), 2022. Article Number: 7730158. Date of Publication: 2022.
[Article]
AN: 2018098293
Objective. To analyze the application effect of image-text communication-based healthcare education combined with shifting of attention on child patients undergoing inguinal hernia repair under general anesthesia. Methods. A total of 110 child patients with inguinal hernia treated in our hospital from January 2020 to January 2022 were selected as the study subjects and divided into the control group (CG, routine intervention measures) and the research group (RG, image-text communication-based healthcare education combined with shifting of attention) according to their preoperative intervention plans, with 55 cases each. After surgery, the child patients' psychological status, crying and shouting situation, and occurrence of complications were evaluated to compare and analyze the intervention effect of the two groups. Results. The child patients' positive rate and anxiety incidence rate of psychological status evaluation were obviously lower in RG than in CG ($P < 0.05$), and the daily frequency of crying and shouting was significantly lower in RG than in CG ($P < 0.05$); the single time of crying and shouting was significantly shorter in RG than in CG ($P < 0.05$); after surgery, child patients in the two groups had different degrees of infections, subcutaneous emphysema, and scrotal edema, but the total incidence rate of these complications was obviously lower in RG than in CG ($P < 0.05$); after surgery, no significant between-group difference in child patients' FLACC scores immediately after being transferred to the ward was observed ($P > 0.05$), and at postoperative 1 h, 3 h, and 5 h, the FLACC scores of RG were obviously lower than those of CG ($P < 0.05$); and according to the investigation results, the total satisfaction and number of very satisfied parents in RG were greatly higher than those in CG ($P < 0.05$). Conclusion. Before child patients undergoing inguinal hernia repair under general anesthesia, implementing image-text communication-based healthcare education combined with shifting of attention can effectively improve the child patients' postoperative psychological status and crying and shouting situation and is conducive to preventing postoperative infections, pain, and other complications and promoting postoperative recovery. The combined intervention has potential utility in reducing child patients' high-risk adverse reactions during the perioperative period and ensuring smooth operation, which is generally recognized by the child patients' family members.

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Publisher
Hindawi Limited
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102.

Comparison of ring instruments and classic circumcision methods: a systematic review and meta-analysis.
Guler Y., Ozmerdiven G.C., Erbin A.
Embase
Arab Journal of Urology. 20(3) (pp 144-158), 2022. Date of Publication: 2022.
[Review]
AN: 2017111955
Aim: To determine the advantages and disadvantages of both methods by comparing classic circumcision methods with circumcision methods assisted by ring instruments. Material-Methods: Only studies that compared open procedures and ring devices for male circumcision were included. A total of 6226 patients were examined in 14 studies. The methodological quality of RCT was evaluated using Cochrane collaboration's tools. The Review Manager software statistical package was used to analyze the ORs for dichotomous variables and the mean differences for continuous variables. The proportion of heterogeneity across the studies was tested using the I 2 index. Potential publication bias was assessed by identifying the presence of visual asymmetry/symmetry with funnel plot studies.
Result(s): There were 1812 patients in the open circumcision group and 4414 patients in the ring groups. In total, there was no difference identified between the groups. The open procedure had an advantage compared to the Plastibell subgroup for hemorrhage, while in the other two subgroups, the ring instrument groups had the advantage. Statistically significant in favor of ring devices was found in operating time.There was no difference between the groups for early (postoperative) pain scores. For late-period pain scores, differences with statistical significance were identified in favor of ring devices both in subgroups and in total. For satisfaction, apart from one study in the PrePex group, statistical significance was obtained in favor of ring devices for the other subgroups and in total.
Conclusion(s): The main factors in favor of the use of ring instruments for circumcision are the short total surgical duration, not requiring advanced surgical experience, ease of learning and application, and patient relative satisfaction rates. However, it is a condition to know open circumcision methods and to have experience of this surgery for use in situations with hemorrhage complications, mainly, and without ring instruments of appropriate size.

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Taylor and Francis Ltd.
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103.

Enhanced Recovery After Surgery (ERAS) for Lower Urinary Tract Reconstruction in Children.
Strine A.C., VanderBrink B.A.
Embase
Current Treatment Options in Pediatrics. 8(3) (pp 174-191), 2022. Date of Publication: September 2022.
[Review]
AN: 2016557469
Purpose of review: Enhanced recovery after surgery (ERAS) is a fundamental shift in perioperative care that is designed to modulate the pathophysiologic response to stress and to minimize the fluid shifts from surgery. ERAS has consistently demonstrated an improved outcome for a wide variety of surgeries in adults but has only recently been explored in children. The purpose of this review is to describe the key elements of ERAS and their supporting evidence in the pediatric population, assess the literature on ERAS in lower urinary tract reconstruction, and discuss the strategies for implementation. Recent findings: A majority of the literature is retrospective in nature and focuses on individual elements of ERAS in the pediatric population. More recent evidence has supported the avoidance of prolonged fasting and mechanical bowel preparation prior to surgery, use of regional anesthesia, and early feeding and avoidance of nasogastric decompression after surgery. Several small comparative studies with a well-defined enhanced recovery protocol have also observed a significantly shorter length of stay and significant decrease or no difference in the risk of postoperative complications for gastrointestinal surgery, lower urinary tract reconstruction, among others. A multi-disciplinary team, strong leadership, and continuous audit are all critical to implementation and sustainability of ERAS. Summary: The current evidence is promising but still limited on ERAS for lower urinary tract reconstruction and other major surgeries in the pediatric population. Higher-quality studies are clearly needed to corroborate the findings of earlier studies and to allow for the refinement of pediatric-specific best practices and development of pediatric guidelines in the future.

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104.

Umbilical access in laparoscopic surgery in infants less than 3 months: A single institution retrospective review.
Fraser J.A., Briggs K.B., Svetanoff W.J., Rentea R.M., Aguayo P., Juang D., Fraser J.D., Snyder C.L., Hendrickson R.J., St. Peter S.D., Oyetunji T.A.
Embase
Journal of Pediatric Surgery. 57(10) (pp 277-281), 2022. Date of Publication: October 2022.
[Article]
AN: 2015855575
Introduction: Umbilical access in laparoscopic surgery has been cited as a factor for increased complications in low-birth-weight infants and those less than three months old. In a previous series, 10.6% of pediatric surgeons reported complications in this population associated with umbilical access, citing carbon dioxide (CO2) embolism as the most common complication. To further examine the safety of this technique, we report our outcomes with blunt transumbilical laparoscopic access at our institution over four years.
Method(s): A retrospective review was performed of patients less than three months of age who underwent laparoscopic pyloromyotomy or inguinal hernia repair from 2016 to 2019. Operative reports, anesthesia records, and postoperative documentation were reviewed for complications related to umbilical access. Complications included bowel injury, vascular injury, umbilical vein cannulation, CO2 embolism, umbilical surgical site infection (SSI), umbilical hernia requiring repair, and death.
Result(s): Of 365 patients, 246 underwent laparoscopic pyloromyotomy, and 119 underwent laparoscopic inguinal hernia repairs. Median age at operation was 5.9 weeks [4.3,8.8], and median weight was 3.9 kg [3.4,4.6]. Nine complications (2.5%) occurred: 5 umbilical SSIs (1.4%), 1 bowel injury upon entry requiring laparoscopic repair (0.2%), 1 incisional hernia repair 22 days postoperatively (0.2%), and 2 cases of hypotension and bradycardia upon insufflation that resolved with desufflation (0.5%). There were no intraoperative mortalities or signs/symptoms of CO2 embolism.
Conclusion(s): In this series, umbilical access for laparoscopic surgery in neonates less than three months of age was safe, with minimal complications. Although concern for umbilical vessel injury, cannulation, and CO2 embolism exists, these complications are not exclusively associated with umbilical access technique.

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2022

105.

A steady stream of knowledge: decreased urinary retention after implementation of ERAS protocols in ambulatory minimally invasive inguinal hernia repair.
Broderick R.C., Li J.Z., Blitzer R.R., Ahuja P., Race A., Yang G., Sandler B.J., Horgan S., Jacobsen G.R.
Embase
Surgical Endoscopy. 36(9) (pp 6742-6750), 2022. Date of Publication: September 2022.
[Article]
AN: 2014647844
Background: Potential complications after inguinal hernia repair include uncontrolled post-operative pain and post-operative urinary retention (POUR). Enhanced Recovery After Surgery (ERAS) protocols aim to mitigate post-operative morbidity. We study the impact of ERAS measures alongside discharge without a narcotic prescription on post-operative pain and POUR after minimally invasive inguinal hernia repair.
Method(s): A retrospective review of a prospectively maintained database identified patients that underwent minimally invasive inguinal hernia repair at a single institution. Intra-operative data included operative time, narcotic usage, non-narcotic adjunct medication, and fluid administration. Primary outcomes included rates of POUR and uncontrolled post-operative pain. Operations performed after 2018 were included in the ERAS cohort. Uncontrolled post-operative pain was defined as needing additional narcotic prescriptions, admission, or ER visits for post-operative pain. POUR was defined as requiring an indwelling urethral catheter at discharge, admission for retention, or returning to the ER for urinary retention.
Result(s): Between January 2008 and March 2021, 1097 patients who underwent minimally invasive inguinal hernia repair were identified. 91.3% of these procedures were laparoscopic and 8.7% were robotic. Average patient age was 57.4 years, 93% were male. Patients receiving care after initiation of the ERAS protocol were significantly less likely to experience POUR when compared to their prior counterparts (1.4% vs. 4.2% p = 0.01); there was no difference in post-operative pain complications (1.4% vs. 2.9% p = 0.15). Patients who were discharged without a narcotic prescription had 0% incidence of POUR. Significant differences were found between the ERAS and non-ERAS cohort regarding narcotic usage and fluid administration. Age, higher fluid volume, and higher narcotic usage were found to be risk factors for POUR while ERAS, sugammadex, and dexamethasone were found to be protective.
Conclusion(s): Implementation of an ambulatory ERAS protocol can significantly decrease urinary retention and narcotic usage rates after minimally invasive inguinal hernia repair.

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Year of Publication
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106.

Prospective study on Comparison of outcomes of mini percutaneous nephrolithotomy versus retrograde intrarenal surgery for renal stones of 1-2 cm size.
Kanchi V.B.R., Pogula V., Galeti E., Nekkanti R.
Embase
Urology Annals. 14(3) (pp 265-272), 2022. Date of Publication: July-September 2022.
[Article]
AN: 638655575
Aim and Objectives: The aim of this study is to demonstrate the outcomes of retrograde intrarenal surgery (RIRS) and Mini percutaneous nephrolithotomy (M-PCNL) in the management of 1-2 cm renal stones, with factors considered being operative time, duration of hospital stay, complication rate, and auxiliary procedure rate.
Material(s) and Method(s): This is a single-center, prospective study on patients diagnosed with 1-2 cm renal calculi between April 2018 and March 2020. Informed written consent was obtained from all the patients. A total of 60 patients were included in the study. Patients were divided into two groups - Group I and Group II; Group I: 30 patients who underwent RIRS and Group II: 30 patients who underwent Mini-PCNL-Mini percutaneous nephrolithotomy. Data were collected to compare the operative data, postoperative complications, duration of hospital stay, stone-free rate, and auxiliary procedure rate associated with RIRS and Mini pcnl for the treatment of 1-2 cm renal calculi. Inclusion criteria: All patients who presented with 1-2 cm renal calculi between April 2018 and March 2020Age >15 years. Exclusion criteria: Stones larger than 2 cm and smaller than 1 cm. More than 3 stones in the pelvicalyceal systemPregnant women.
Result(s): The mean age in the Mini Perc and RIRS groups was 30.40 +/- 14.36 years and 39.20 +/- 12.45 years, respectively, with no statistical significance. Of the 60 renal units, 66.7% were male and 33.3% were female in the Mini Perc group. In the RIRS group, 73.3% were male and 26.7% were female. There was no statistical significance. In the Mini Perc group, 53.3% were operated on the right side and 46.7% were operated on the left side, and in the RIRS group, 33.3% were operated on the right side and 66.7% were operated on the left side, with no statistical significance. The mean stone size in the Mini Perc group was 1.4 +/- 0.37 cm and the mean stone size in the RIRS group was 1.3 +/- 0.27 cm, with no statistical significance. Of the 60 renal units, 3.3% and 6.7% in Mini Perc and RIRS groups had diabetes alone, and 3.3% and 16.7% in Mini Perc and RIRS groups had hypertension alone. 3.3% in RIRS group had tuberculosis, 6.7% and 13.3% in Mini Perc and RIRS groups had both hypertension and diabetes, and 6.7% in Mini Perc group had diabetes with hypertension with coronary artery disease. The mean operating time in the Mini Perc group was 44.07 +/- 9.05 min. The mean operating time in the RIRS group was 72.23 +/- 11.01 min. There is statistical significance noted in terms of operating time. There were complications noted in both the groups, of which 6.7% and 16.7% in Mini Perc and RIRS groups had postoperative fever, and 3.3% and 6.7% in Mini Perc and RIRS groups had postoperative hematuria with no statistical significance noted. The mean postoperative pain in the first 24 h was 3.63 +/- 1.35 in Mini Perc group, whereas it was 1.43 +/- 0.72 in RIRS group; the mean postoperative pain at 48 h was 1.80 +/- 0.96 in Mini Perc group, whereas it was 1.03 +/- 0.18 in RIRS group, with significance between both the groups. The mean hemoglobin drop in Mini Perc group was 0.88 +/- 0.44 g in Mini Perc group, whereas it was 0.99 +/- 0.65 in RIRS group, with no statistical significance between both the groups. The mean stone clearance rate for Mini Perc group is 99% +/- 5.47%, whereas it was 96.33% +/- 10.98% in RIRS group, with no statistical significance. In comparison with both the groups, the retreatment rate was 3.3% in Mini Perc group and 13.3% in RIRS group, with no statistical significance.
Conclusion(s): The result of this study revealed that between both the techniques, patients undergoing RIRS procedure had significantly less pain than Mini Perc, though RIRS procedure took longer operating times. We found that both the techniques were safe, in regard to

complications (both intraoperative and postoperative), and there was no significant difference in hospital stay between the groups.

Status
Embase
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107.

Neuraxial anesthesia for post-operative pain control after hip surgery in children with cerebral palsy and pre-existing intrathecal baclofen pumps.
Kulkarni V.A., Kephart D.T., Ball M.A., Tumber S., Davidson L.T., Davids J.R.
Embase
Journal of Pediatric Rehabilitation Medicine. 15(1) (pp 3-11), 2022. Date of Publication: 2022.
[Article]
AN: 637744132
PURPOSE: The purpose of this study is to describe the efficacy and adverse events of neuraxial anesthesia for post-operative pain control in non-ambulatory children with cerebral palsy with pre-existing intrathecal baclofen (ITB) pumps undergoing hip reconstructive or palliative surgery.
METHOD(S): Twelve children (mean age 11.25 years) were included in the study with the following neuraxial anesthesia methods: indwelling epidural catheter (8 patients), neuraxial opioids administered through the side port of the ITB pump (3 patients), and single injection spinal anesthetic (1 patient). Observational pain scores and opioid requirements were quantified for all patients.
RESULT(S): There were no ITB pump or surgical complications at a mean follow-up of 2.2 years. The average length of stay was 6 days. Patients had good post-operative pain control with a mean observational pain score of 0.7 and mean morphine equivalent use of 0.26mg/kg/day. Four patients required anti-emetics to control nausea and three patients had urinary retention requiring repeat catheterization, but all medical complications resolved prior to discharge.
CONCLUSION(S): Neuraxial anesthesia can effectively control post-operative pain in children with a pre-existing ITB pump. Utilizing the side port of the ITB pump for administration of neuraxial opioids is an option when epidural or spinal anesthesia is not possible.

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Publisher
IOS Press BV
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108.

Is Ultrasound-Guided Single-Shot Quadratus Lumborum Block a Viable Alternative to a Caudal Block in Pediatric Urological Surgery?.
Rotem S., Raisin G., Ostrovsky I.A., Kocherov S., Jaber J., Zeldin A., Feldman E., Gozal Y., Chertin B.
Embase
European Journal of Pediatric Surgery. 32(3) (pp 263-267), 2022. Date of Publication: 01 Jun 2022.
[Article]
AN: 633959604
Objective To review our experience with quadratus lumborum block (QLB) in pediatric urology. Materials and Methods This mixed prospective-retrospective study included 41 patients who received QLB following induction of general anesthesia. Data collected included: the duration of block induction, surgery, hospitalization, postoperative pain score, and the use of rescue analgesia. The results were compared with a matched cohort of patients who received caudal block (CB) during similar surgeries from our retrospectively acquired data registry. Results There was no difference between the type and length of surgery, weight, sex, and age of the patients between the two groups. The duration of block induction was significantly shorter in the CB group compared with the QLB group (35.6 +/- 14.6 vs. 239 +/- 33.4 seconds [p < 0.0001]). There was no difference between the groups in pain scores at 1, 4, and 24 hours postoperatively, in the time to first rescue analgesia, or in the postoperative opioid requirements. However, the QLB group required more rescue analgesia compared with CB group (p = 0.016). Finally, no differences were found in the use of rescue analgesics at home, pain record behavior, and overall satisfaction. Conclusion Our data show that QLB might serve as a viable alternative to CB in pediatric urological surgery.

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Publisher
Georg Thieme Verlag
Year of Publication
2022

109.

Outcome of Desarda Technique in Inguinal Hernia Repair.
Rashid J., Aslam R.S., Hassan M., Arshid A., Afzal M.F., Malik A.A.
Embase
Pakistan Journal of Medical and Health Sciences. 16(7) (pp 235-238), 2022. Date of Publication: July 2022.
[Article]
AN: 2019811096
Objective: The objective of this study is to evaluate the short term outcome of Desarda technique in inguinal herniorrhaphy in terms of duration of surgery and post-operative pain.
Material(s) and Method(s): This case series study was conducted at Department of Surgery, Lahore General Hospital, Lahore from June 2021 to December 2021. Total 150 male patients of inguinal hernia having age 16-50 years were selected. Duration of surgery and post-operative pain was studied.
Result(s): The mean age of patients was 34.86 +/- 9.38 years with range of 31.00 years. The minimum and maximum age was 19.00 and 50.00 years respectively. The mean surgery time was 48.92 +/- 11.13 minutes with minimum and maximum of 30 and 70 minutes. There were 11 (7.33%) patients who had no pain, 32 (21.33%) had mild, 91 (60.67%) had moderate and 16 (10.67%) had severe pain at day 1. At day 2, no pain was found in 53 (35.33%) patients. A majority of patients 73 (48.67%) were suffering from mild pain whereas moderate and severe pain was seen in 22 (14.67%) and 2 (1.33%) patients respectively.
Conclusion(s): Desarda repair is an acceptable alternative technique for effective repair of inguinal hernia with comparable operative time and postoperative pain as observed in this study that there is minimal duration of surgery and less post operative pain especially at day 2 . The technique can be safely employed to reduce the hospital burden and morbidity related to postoperative pain following operative repair of inguinal hernia. The study will help to encourage further research on this technique as there is only sparse data available in the published local literature to date.

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110.

The Effect of the Duckett procedure on the Outcome and Prognosis of Children with Suburethral Cleft.
Geng H., Cheng S., Yang X., Huang Y.
Embase
Contrast Media and Molecular Imaging. 2022 (no pagination), 2022. Article Number: 7444104. Date of Publication: 2022.
[Article]
AN: 2019260954

Background. Hypospadias is one of the most common malformations of the male genitourinary system. In recent years, the incidence of hypospadias is increasing year by year, which seriously affects normal urination and sexual function. Repairing hypospadias has always been a challenge in paediatric urology, requiring a variety of surgical techniques and science and art that requires intensive study. Despite the availability of over 300 surgical procedures and continuous improvement, there is still a high level of surgical complications. It is crucial to choose an appropriate and effective surgical method for the treatment of hypospadias. Aims. This study aimed to investigate the outcome and prognosis of children with hypospadias, using transverse cut foreskin island flap coiled urethroplasty (the Duckett procedure). Materials and Methods. A retrospective study was conducted on 100 children with hypospadias who underwent surgery in our hospital from December 2018 to December 2021. Based on the degree of hypospadias and the degree of penile curvature both in line with the Duckett procedure, the comparison group was treated with a one-stage Duckett procedure and the treatment group was treated with a staged Duckett procedure. The differences in the surgical condition, inflammatory factor levels, and complications between the two groups of children were observed and compared. Results. The length of hospital stay and VAS score in the treatment group were significantly lower than those in the control group, and the operation time and intraoperative bleeding were higher than those in the control group, with a statistical significance ($P<0.05$). The success rate of one operation was higher than that of the comparison group, but the statistical comparison was not statistically significant ($P>0.05$). There was no statistically significant difference in the inflammatory response between the two groups before surgery ($P>0.05$), while the difference in CRP, IL-6, and calcitoninogen between the two groups after surgery was significant and lower in the comparison group than in the treatment group, which was statistically significant ($P<0.05$). The clinical outcome of the children in both groups showed that the excellent rate of 92.00% in the treatment group was significantly higher than that of 74.00% in the comparison group, while the incidence of complications was significantly lower than that of the comparison group, and the difference was statistically significant ($P<0.05$). Complications in children with poor surgical outcomes in both groups occurred mainly, early urethral stricture and cured by urethral dilatation or condition without improvement cured by urethrotomy. Conclusion. A comparative study of hypospadias treated with the staged Duckett procedure was more effective in relieving postoperative pain and inflammatory reactions in children, reducing postoperative complications and improving healing efficiency, providing some reference value for hypospadias surgery.

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Publisher
Hindawi Limited
Year of Publication
2022

111.

Assessment of Postoperative Analgesic Efficacy of Ilioinguinal-Iliohypogastric Block as Compared to Caudal Block in Children Undergoing Inguinal Herniotomy: A Randomised Clinical Study.

Desai U., Sontakke A.Y.
Embase
Journal of Clinical and Diagnostic Research. 16(7) (pp UC06-UC10), 2022. Date of Publication: July 2022.
[Article]
AN: 2019141991
Introduction: An Inguinal herniotomy is most frequently performed surgery in children under general anaesthesia along with various regional anaesthesia techniques such as ilioinguinal-iliohypogastric block (hernia block) or caudal block.
Aim(s): To compare postoperative analgesic efficacy of hernia block (anatomical landmark guided ilioinguinal- iliohypogastric block) versus caudal block using bupivacaine as a local anaesthetic in children undergoing inguinal herniotomy.
Material(s) and Method(s): This single-centre, randomised clinical study was conducted at tertiary medical college and hospital (Lokmanya Tilak Municipal Medical College and General Hospital), Mumbai, Maharashtra, India, from December 2016 to December 2018. The study included 100 children from age 6 months to 6 years with American Society of Anesthesiologists (ASA) grade I and II, posted for elective inguinal herniotomy (unilateral). All children were given either hernia block or caudal block, based on computerized randomisation method. Total 55 patients received hernia block (Group H) with 0.3 mL/kg of 0.25% concentration of bupivacaine and another 45 patients received caudal block (Group C) with 0.75 mL/kg of 0.25% bupivacaine. In the postoperative period, mean pain free period and total duration of rescue analgesia were recorded in both the groups. Chi-square test and Fisher's-exact test. The p-value <0.05 was indicated as statistically significant.
Result(s): Demographic data was comparable in two groups. The mean drug volume (bupivacaine 0.25%) used in group C was 8.44 +/-3.46 mL and in group H was 4.24 +/-1.6 mL. The mean pain free period, with in the first 24 hours, in group C was 8.80+/-6.43 hours and in group H, it was 11.77+/-8 hours. Rescue analgesia and FLACC score (the Face, Legs, Activity, Cry, Consolability scale) at 0 min, 15 min, 30 min and every hour upto 4 hours was comparable in both the groups. Mean time of discharge of patients receiving either of blocks, FLACC score at the time of discharge were comparable in both the groups.
Conclusion(s): Hernia block was more effective than caudal block based on duration of postoperative analgesia. There was higher margin of safety with lower volume of local anaesthetic used.

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Publisher
Journal of Clinical and Diagnostic Research
Year of Publication
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112.

CLINICAL EFFECT OF DIFFERENT METHODS OF URETERAL BLADDER REPLANTATION.
Tang W., Niu H., Yang Y., Li H., Liu H., Zhang J., Zhang P.
Embase
Acta Medica Mediterranea. 38(3) (pp 1837-1842), 2022. Date of Publication: 2022.
[Article]
AN: 2018491269

Introduction: To explore the clinical effect of open and air bladder laparoscopic vesicoureteral replantation in the treatment of vesicoureteral reflux.
Material(s) and Method(s): A total of 80 patients with vesicoureteral reflux admitted to our hospital from January 2017 to December 2020 were selected. According to different treatment methods, all patients were divided into a control group and a study group, with 40 cases in each group. Patients in the study group received air bladder laparoscopic vesicoureteral replantation, and patients in the control group received open vesicoureteral replantation. The surgical incision, time and intraoperative blood loss were compared between the two groups of patients to evaluate the operation; the postoperative catheter retention time, postoperative hematuria time, fasting time, antibiotic use time, postoperative hospital stay, etc. were compared between the two groups of patients to evaluate the short-term curative effect of operation. The patients were followed up for 3 to 9 months after the operation, and adverse reactions of the two groups of patients were recorded during the follow-up period.
Result(s): Patients in the study group underwent air bladder laparoscopic vesicoureteral transplantation, and their surgical incision was significantly smaller than that in the control group (P<0.05), and the amount of bleeding in the study group was effectively controlled (P<0.05). The operation time of the two groups of patients were compared, and the operation time in the study group was significantly longer than that in the control group (P<0.05). Twenty-four hours after operation, the serum levels of Cor and ROS in the two groups were higher than those before the operation, and the serum levels of SOD and GSH-Px were lower than those before the operation. The serum levels of Cor and ROS in the study group were lower than those in the control group, and the serum levels of SOD and GSH-Px were higher than those in the control group. The difference was statistically significant (P <.05). The postoperative ureter retention time, postoperative hematuria time, fasting time, antibiotic use time, postoperative hospital stay, etc. in the study group were significantly shorter than those in the control group; the postoperative ureter diameter of the two groups was basically the same, and the difference was not statistically significant. The incidence of postoperative complications in the study group was 7.50% (3/40), which was lower than the 25.00% (10/40) in the control group. The difference was statistically significant (X=5.316, P<0.05).
Conclusion(s): The clinical effect of air bladder laparoscopic vesicoureteral replantation in the treatment of vesicoureteral reflux in children is significant, which is beneficial to the postoperative recovery of children, and is worthy of clinical application.

Status
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113.

Urinary Aromatic Amino Acid Metabolites Associated With Postoperative Emergence Agitation in Paediatric Patients After General Anaesthesia: Urine Metabolomics Study.
Li Y., Li J., Shi Y., Zhou X., Feng W., Han L., Ma D., Jiang H., Yuan Y.
Embase
Frontiers in Pharmacology. 13 (no pagination), 2022. Article Number: 932776. Date of Publication: 19 Jul 2022.
[Article]

AN: 2018390922
Background: Emergence agitation (EA) is very common in paediatric patients during recovery from general anaesthesia, but underlying mechanisms remain unknown. This prospective study was designed to profile preoperative urine metabolites and identify potential biomarkers that can predict the occurrence of EA.
Method(s): A total of 224 patients were screened for recruitment; of those, preoperative morning urine samples from 33 paediatric patients with EA and 33 non-EA gender- and age-matched patients after being given sevoflurane general anaesthesia were analysed by ultra-high-performance liquid chromatography (UHPLC) coupled with a Q Exactive Plus mass spectrometer. Univariate analysis and orthogonal projection to latent structures squares-discriminant analysis (OPLS-DA) were used to analyse these metabolites. The least absolute shrinkage and selection operator (LASSO) regression was used to identify predictive variables. The predictive model was evaluated through the receiver operating characteristic (ROC) analysis and then further assessed with 10-fold cross-validation.
Result(s): Seventy-seven patients completed the study, of which 33 (42.9%) patients developed EA. EA and non-EA patients had many differences in preoperative urine metabolic profiling. Sixteen metabolites including nine aromatic amino acid metabolites, acylcarnitines, pyridoxamine, porphobilinogen, 7-methylxanthine, and 5'-methylthioadenosine were found associated with an increased risk of EA, and they all exhibited higher levels in the EA group than in the non-EA group. The main metabolic pathways involved in these metabolic changes included phenylalanine, tyrosine and tryptophan metabolisms. Among these potential biomarkers, L-tyrosine had the best predictive value with an odds ratio (OR) (95% CI) of 5.27 (2.20-12.63) and the AUC value of 0.81 (0.70-0.91) and was robust with internal 10-fold cross-validation.
Conclusion(s): Urinary aromatic amino acid metabolites are closely associated with EA in paediatric patients, and further validation with larger cohorts and mechanistic studies is needed.
Clinical Trial Registration: clinicaltrials.gov, identifier NCT04807998.

Status
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Publisher
Frontiers Media S.A.
Clinical Trial Number
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114.

Clinical Efficacy of Laparoscopic Orchiopexy With the Modified Prentiss Maneuver for Non-palpable Testis Near the Internal Ring.
He T.-Q., Tong F.-Y., Wang Z., Liu Y., Hu J.-J., Chen Y.-F., Tu L., He J., Zhao Y.-W.
Embase
Frontiers in Pediatrics. 10 (no pagination), 2022. Article Number: 906739. Date of Publication: 27 May 2022.

[Article]
AN: 2017910161
Objective: To compare the clinical efficacy and safety of laparoscopic orchiopexy with the modified Prentiss maneuver (LOMPM) and laparoscopic trans-inguinal orchiopexy (LTIO) for the treatment of non-palpable testis (NPT) <1 cm from the internal ring.
Method(s): Children with unilateral NPT who underwent laparoscopic orchiopexy at our center between February 2018 and January 2021 were retrospectively analyzed. According to the surgical method, they were divided into LOMPM and LTIO groups. The operation time, postoperative pain degree, postoperative complications and follow-up results were compared between the two groups.
Result(s): A total of 98 patients were included in this study, including 41 cases in the LOMPM group and 57 cases in the LTIO group. All patients underwent successful surgery. The LOMPM group was superior to the LTIO group in terms of postoperative testicular position (lower scrotm: 90.2 vs. 71.9%, P = 0.026). There were no significant differences in operation time, postoperative pain score, and complications between the two groups. Preoperative testicular volume, postoperative testicular volume, and testicular growth rate in the LOMPM group were comparable to those in the LTIO group. There were no testicular atrophy, inguinal hernia and hydrocele in both groups after operation.
Conclusion(s): LOMPM was comparable in safety to LTIO, but LOMPM had a good post-operative testicular position, and was suitable for the treatment of NPT near the internal ring.

Status
Embase
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115.

Influence of Fluid Therapy on Kidney Function in the Early Postoperative Period After Lung Transplantation.
Wajda-Pokrontka M., Nadziakiewicz P., Krauchuk A., Ochman M., Zawadzki F., Przybylowski P.
Embase
Transplantation Proceedings. 54(4) (pp 1115-1119), 2022. Date of Publication: May 2022.
[Article]
AN: 2017692165
Background: Perioperative fluid therapy among patients undergoing lung transplantation (LT) has a significant clinical importance, including developing of acute kidney injury (AKI). The presence of AKI in the early postoperative period is associated with increased mortality in lung transplant recipients. Analysis includes the relationship between the volume of infused fluids, the balances of crystalloids and colloids during LT procedure and in the first 24 hours and the estimated glomerular filtration rate (eGFR) values in the following days of the postoperative period.
Method(s): Retrospective study of 73 consecutive patients undergoing LT between 2015 and 2018 in our institution. Deterioration of renal function was defined as the change in eGFR that occurred between baseline eGFR and the first and 7 first postoperative days following transplantation. The Chronic Kidney Disease Epidemiology Collaboration formula was used to calculate the eGFR value.

Result(s): The greatest decline of eGFR in the early postoperative period was demonstrated on day 7 (DELTAeGFR = 75.76 +/- 40.08). Increased negative crystalloid balances during the LT procedure were strongly associated to less decrease in eGFR value on the seventh day post-LT (r = -0.997, P <.05). Increased volumes of transfused colloids during LT were correlated to less decline of eGFR value on day 7 (r = -0.3981, P <.05).
Conclusion(s): Negative crystalloid balance in the early postoperative period post-LT has a potentially protective effect on kidney function, although fluid balances management should be individually considered for potential clinical benefits. The impact of the fluid administration after LT on the occurrence and recovery of AKI among lung transplant recipients requires further investigation.

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Elsevier Inc.
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116.

The efficacy of tissue glue in pediatric circumcision wound approximation: A meta-analysis of randomized controlled trial.
Azmi Y.A., Yogiswara N., Renaldo J.
Embase
Journal of Pediatric Urology. 18(3) (pp 327-333), 2022. Date of Publication: June 2022.
[Review]
AN: 2017650658
Introduction: Tissue glue has been examined extensively for its effectiveness in pediatrics, and the findings are good. The purpose of this research was to examine the effectiveness of tissue glue compared to absorbable sutures for wound approximation in pediatric circumcision.
Method(s): A systematic review and meta-analysis on children who had circumcision using tissue glue and absorbable suture were done in line with the PRISMA criteria. RevMan 5.4 was used to perform the meta-analysis. The mean differences for continuous and dichotomous data are determined using inverse variance, and the odds ratio is calculated using the Mantel-Haenszel technique.
Result(s): The inclusion criteria were met by six trials containing a total of 817 patients. According to the analysis, tissue glue significantly reduces the duration of the operation (MD - 7.98; 95% CI -12.35, -3.62; p = 0.0003), pain severity (SMD -0.57; 95%CI -0.80, -0.32; p < 0.00001) and the duration of pain (MD - 2.33; 95% CI -2.57, -2.08; p < 0.00001) compared to absorbable suture. However, we found that there was no significant difference in the incidence of postoperative

bleeding, infection, dehiscence, or overall complication when comparing tissue glue to traditional suture.
Conclusion(s): Our systematic review and meta-analysis using the most recent data suggest that tissue glue usage might reduce the operation time, as well as the intensity and duration of postoperative pain.

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Publisher
Elsevier Ltd
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117.

The effect of using tablet computer on surgical stress: A single-blinded randomized controlled trial.
Evren Sahin K., Karkiner A.
Embase
Journal of Pediatric Urology. 18(3) (pp 340.e1-340.e9), 2022. Date of Publication: June 2022.
[Article]
AN: 2017525755
Introduction: The purpose of our study was to evaluate the effects of tablet computer method on children with and without anxiety. The study was designed as a prospective single-blinded randomized controlled trial.
Material(s) and Method(s): The population of the study were 300 patients between the ages of 4 and 10 years old who were scheduled for their first elective surgery for phimosis-inguinal hernia-hydrocele-undescended testis-hypospadias. The initial anxiety scores of the patients were evaluated using modified-Yale Preoperative Anxiety Scale (mYPAS). Group-Midazolam, Group-Tablet, Group-Control were formed by applying randomization to the patients. The anxiety levels of the patients were evaluated in the waiting room using mYPAS after 0.5 mg/kg midazolam or tablet computer. Patient anxiety about separation from their families was evaluated with Parental Separation Anxiety Scale (PSAS), and reactions to the anaesthesia mask were evaluated with Mask Acceptance Scale (MAS). Also, the time spent by the patients in the Post-Operative Care Unit (PACU) was evaluated. Post-Hospitalization Behavior Questionnaire (PHBQ) scores of the patients were determined by the anesthesiologist one week after the surgery.
Result(s): The study compared the anxiety levels in groups. There were significant differences in the post-anxiolytic-mYPAS-scores and percentages of decrease from the preoperative baseline measurements ($p < 0.001$ and $p < 0.001$). There were significantly more children who were easily separated from their parents (PSAS-Score 1) in Group-Midazolam ($p < 0.01$). The children in Group-Midazolam also accepted the masks more readily (MAS-Score 1) than other ($p < 0.001$). Differences in the duration of the recovery time and mean PHBQ-scores between the groups were also significant ($p < 0.001$ for each). For children with anxiety, the recovery time for those in Group-Midazolam was significantly longer than other. For children without anxiety ($p < 0.001$), the duration of the recovery time in Group-Midazolam was also found to be significantly longer than other. The PHBQ-scores of the children in Group-Control with anxiety and without anxiety were

significantly higher than other ($p < 0.05$ for each). Also, there were significant differences in the distribution of the PSAS-scores between the children with and without anxiety. Anxiety had no impact on the distribution of the MAS-scores ($p = 0.045$ and $p = 0.100$).
Conclusion(s): Playing tablet-based games in the preoperative period enabled pediatric patients to be more comfortable while waiting in their rooms, leaving their families, and applying an anaesthetic mask. In pediatric patient with and without anxiety, midazolam separation from the family and accepting the anesthesia mask is easiest in midazolam, second in those who are given a tablet computer.

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118.

Outcomes of Laparoscopic Transabdominal Preperitoneal Inguinal Hernioplasty.
Mohammed H.A.A., Ghareeb O.H., Asaad F.F., Mone H.M.A.
Embase
European Journal of Molecular and Clinical Medicine. 9(1) (pp 853-860), 2022. Date of Publication: December 2022.
[Article]
AN: 2016942418
Background: Inguinal hernia is a common problem that can be treated only by surgery. The surgeons should improve their technical skills in laparoscopic repair of inguinal hernia (TAPP) with short learning curve. The aim of the present study was to evaluate the safety, effectiveness and feasibility of TAPP inguinal hernia repair.
Patients and Methods: A total of 18 consecutive male patients with inguinal hernias were prospectively randomized to TAPP repair at the surgical outpatient clinics of Zagazig University Hospitals. Postoperative pain was estimated using the visual analogue scale (VAS). Postoperative hospital stay and early postoperative complications were recorded.
Result(s): The present study showed age was distributed as 44.22+/-15.7 and majority was manual worker.VAS reduced significantly from 4.16+/-1.5 one week postoperative to 0.32+/- 0.31 six months postoperative. During follow-up, no pain, seromaformation were noticed in any patient. Complicated cases were 3 cases (16.7%). 2 cases with scrotal edema (11%) and recurrence 1 case (5.6%). Follow-up was performed at 7 days and at 1, 4, 6 months. When comparing complicated and uncomplicated cases in terms of post- operative pain, hospital stay, return to work and socio-demographic data, only hospital stay was significantly longer in cases that complicated later on.

Conclusion(s): Laparoscopic transabdominal preperitoneal mesh repair is safe and effective technique in treating inguinal hernia with less post-operative complications associated with and satisfaction and faster recovery.

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119.

Modified fluid gelatin 4% for perioperative volume replacement in pediatric patients (GPS): Results of a European prospective noninterventional multicenter study.
Sumpelmann R., Camporesi A., Galvez I., Pechilkov D., Eich C., Kretz F.-J., Perera Sarri R., Tancheva D., Serrano-Casabon S., Murphy P., Astuto M., Zanaboni C., Becke K., Dennhardt N.
Embase
Paediatric Anaesthesia. 32(7) (pp 825-833), 2022. Date of Publication: July 2022.
[Article]
AN: 2016008348
Introduction: Modified fluid gelatin 4% is approved for use in children, but there is still a surprising lack of clinical studies including large numbers of pediatric patients. Therefore, we performed a European prospective noninterventional multicenter study to evaluate the use of a modified fluid gelatin 4% in saline (sal-GEL) or an acetate-containing balanced electrolyte solution (bal-GEL) in children undergoing major pediatric surgery.
Aim(s): The primary aim was to assess the indications and dosing of modified fluid gelatin, and the secondary aim was to assess the safety and efficacy, focusing, in particular, on routinely collected clinical parameters.
Method(s): Children aged up to 12 years with ASA risk scores of I-III receiving sal-GEL or bal-GEL were followed perioperatively. Demographic data, surgical procedures performed, anesthesia, hemodynamic and laboratory data, adverse events, and adverse drug reactions were documented using a standardized case report form.
Result(s): 601 children that were investigated at 13 European pediatric centers from May 2015 to March 2020 (sal-GEL 20.1%, bal-GEL 79.9%; mean age 29.1 +/- 38.6 (range 0-144) months; body weight 12.1 +/- 10.5 (1.4-70) kg) were included in the analysis. The most frequent indications for GEL infusion were hemodynamic instability without bleeding (76.0%), crystalloids alone not being sufficient for hemodynamic stabilization (55.7%), replacement of preoperative deficit (26.0%), and significant bleeding (13.0%). Mean infused GEL volume was 13.0 +/- 5.3 (2.4-37.5) ml kg-1. The total dose was affected by age, with higher doses in younger patients. After gelatin infusion, mean arterial pressure increased (mean change 8.5 +/- 7.3 [95% CI: 8 to 9.1] mmHg), and the hemoglobin concentrations decreased significantly (mean change -1.1 +/- 1.8 [95% CI: -1.2 to -0.9] g.dL-1). Acid-base parameters were more stable with bal-GEL. No serious adverse drug reactions directly related to gelatin (i.e., anaphylactoid reaction, clotting disorders, and renal failure) were observed.
Conclusion(s): Moderate doses up to 20 ml kg-1 of modified fluid gelatin were infused most frequently to improve hemodynamic stability in children undergoing major pediatric surgery. The acid-base balance was more stable when gelatin in a balanced electrolyte solution was used instead of saline. No serious adverse drug reactions associated with gelatin were observed.

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120.

Effect of intraoperative fluid type on postoperative systemic inflammatory response and end organ dysfunction following total pancreatectomy with islet autotransplantation in children.
Goddard G.R., Wagner M.L., Jenkins T.M., Abu-El-Haija M., Lin T.K., Goldstein S.L., Nathan J.D.
Embase
Journal of Pediatric Surgery. 57(8) (pp 1649-1653), 2022. Date of Publication: August 2022.
[Article]
AN: 2015689152

Purpose: To evaluate the effect of intraoperative fluid type [half normal saline (0.45NS) or lactated Ringer's solution (LR)] on the risk of systemic inflammatory response syndrome (SIRS) and acute kidney injury after total pancreatectomy with islet autotransplantation in children.
Method(s): Retrospective review where demographics, operative details, systemic inflammatory response, and evaluation for end organ dysfunction over the first 5 postoperative days was obtained. Mixed effects Poisson regression compared risk of SIRS and acute kidney injury by intraoperative fluid type.
Result(s): Forty three patients were included with no difference in demographic characteristics between groups. SIRS was observed in 95, 77, and 71% over post operative days 1, 3, and 5. Intraoperative fluid type was found to not be associated with postoperative SIRS (RR: 0.91, p = 0.23). However, female sex (RR: 1.30, p < 0.01), increased BMI (RR: 1.08, p < 0.01), and longer operative time (RR: 1.07, p < 0.01) were found to be factors that are associated with increased risk of postoperative SIRS. Intraoperative 0.45NS use was associated with increased acute kidney injury compared to LR on postoperative day 1 (52% vs 0%, p < 0.01), but not on postoperative days 3 or 5.
Conclusion(s): Intraoperative fluid type (0.45NS vs LR) does not increase the risk of postoperative SIRS in children after TPIAT. Predictive factors that are associated with an increased risk of eliciting postoperative SIRS includes female sex, increased BMI, and longer operative times.
Level of Evidence: III

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121.

Proactive discontinuation of postoperative antibiotic prophylaxis after urethroplasty.
Hanasaki T., Kanematsu A., Yamamoto S.
Embase
International Journal of Urology. 29(7) (pp 707-711), 2022. Date of Publication: July 2022.
[Article]
AN: 2015453543

Objective: We aimed to examine the clinical significance of an antimicrobial administration protocol, in which postoperative prophylaxis was proactively discontinued.
Method(s): We included 81 adult urethroplasties performed at our institution in the study. Preoperative bacteriuria was treated using an appropriate antimicrobial agent 2-5 days before surgery. All patients were treated with intravenous antimicrobial agents until postoperative day 2, and thereafter without prophylaxis. Antibiotics were resumed from the day before the urethrogram for urethral catheter removal, 2-3 weeks postoperatively. The relationships between pre- and postoperative positive urine culture and postoperative infectious complications, along with factors influencing surgical success rate were examined retrospectively.
Result(s): Of the 81 patients, 60 underwent anastomotic repair and 21 underwent substitution repair. Positive preoperative urine cultures were more frequent in patients having suprapubic cystostomy tube than in those without ($P < 0.0001$), but such a difference was not noted postoperatively between the two groups, and approximately half of the patients had a positive urine culture postoperatively. Wound infections and symptomatic urinary tract infections rates were 3.7% and 2.5%, respectively, similar to previous studies with longer prophylaxis, and no significant correlation was noted with pre- and postoperative positive urine culture, treated by this antibiotic protocol. The overall clinical and objective success rates were 96.3% and 79.0%, respectively, and no significant impact of pre- or postoperative positive urine culture was noted. The only significant parameter for objective success was patient age.
Conclusion(s): Perioperative management of urethroplasty is feasible using the antimicrobial protocol described in this study.

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122.

Use of normal saline and incidence of dyselectrolytaemia in children following kidney transplantation.
Williamson S.J., Plant N.D., Shenoy M.
Embase
Pediatric Nephrology. 37(9) (pp 2127-2130), 2022. Date of Publication: September 2022.
[Article]
AN: 2014760483
Background: The use of hypotonic fluid, such as 0.45% saline, following kidney transplantation (KT) in children is associated with a high incidence of electrolyte imbalance, especially hyponatraemia. This can result in serious adverse events, such as cerebral oedema and seizures. The aim of this study was to investigate the incidence of electrolyte disturbance in children when 0.9% saline was the intravenous fluid used in the first 72 h following KT.
Method(s): This is a retrospective, observational study of 50 consecutive KT undertaken between January 2017 and January 2019 at a single centre.

Result(s): The median age at KT was 9.2 years (IQR 4-14) and 16 (32%) were females. Thirty-two (64%) were living related donor (LRD) KT and 22 (44%) were carried out in children < 20 kg. The mean volume of fluid administered intra-operatively, and on Day 1, Day 2 and Day 3, were 73 ml/kg, 124 ml/kg, 97 ml/kg and 86 ml/kg, respectively. Hyponatraemia was noted in 4%, hypernatraemia in 18%, hyperkalaemia in 18%, hyperchloraemia in 68% and low bicarbonate was seen in 88%. Fifteen percent of the children had an episode of hyperglycaemia. None of the children developed symptomatic dyselectrolytaemia. There was delayed graft function (DGF) in 4 (8%) recipients - all deceased donor (DD) KT, including 2 who received donations after circulatory death.
Conclusion(s): While the use of 0.9% saline is associated with a high incidence of electrolyte disturbances, including hyperkalaemia, it reduces the risk of hyponatraemia. None of the children developed a symptomatic electrolyte abnormality. Graphical abstract: A higher resolution version of the Graphical abstract is available as Supplementary information.[Figure not available: see fulltext.]

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123.

Ultra-Mini-Percutaneous Nephrolithotomy in Flank-Free Modified Supine Position vs Prone Position in Treatment of Pediatric Renal Pelvic and Lower Caliceal Stones.
Desoky E.A.E., Sakr A.M., Elsayed E.R., Ali M.M.
Embase
Journal of Endourology. 36(5) (pp 610-614), 2022. Date of Publication: 01 May 2022.
[Article]
AN: 638081492
Objectives: To report the safety and efficacy of ultra-mini-percutaneous nephrolithotomy (UMPCNL) in flank-free modified supine (FFMS) and prone positions in management of pediatric renal calculi.
Patients and Methods: This prospective randomized study included 55 pediatric patients with symptomatic renal stones and suitable for UMPCNL. They were randomized into two groups. Group A included 28 patients who were treated by UMPCNL in FFMS position (with a pad below the ipsilateral shoulder and buttocks, putting ipsilateral upper limb over the chest, and crossing the extended ipsilateral lower limb over the flexed contralateral one) and Group B included 27 patients treated by UMPCNL in the prone position. In both groups dilatation was done to 13F sheath allowing the introduction of 6/7.5F semirigid ureteroscope and fragmentation of stones by Holmium: yttrium-aluminum-garnet laser with a 550-mum fiber laser lithotripter.
Result(s): The operation time in FFMS position UMPCNL group was significantly shorter than prone position UMPCNL group (84.3 +/- 9.87 vs 99.3 +/- 8.75 minutes) with p = 0.022. There was no significant difference between both groups in terms of stone-free rate (89.3% vs 88.9%),

overall complication rate (including transient fever; 21.4% vs 18.5%), postoperative pain (visual analog scale score; 3.4 +/- 0.8 vs 3.3 +/- 0.9), or hospital stay (3.53 +/- 0.8 vs 4.1 +/- 1.1 days). Conclusion(s): Both UMPCNL in FFMs and prone positions are feasible, safe, and effective in treatment of pediatric renal stones with relatively shorter operative time in FFMS position.

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124.

A Comparative Study on Caudal Bupivacaine with and without Tramadol for Analgesia Postoperatively in Paediatric Inguino Scrotal Surgeries.
Ashfaq S., Asghar F., Channa A.A., Saqib M., Ahmad N., Shahjehan
Embase
Pakistan Journal of Medical and Health Sciences. 16(4) (pp 520-522), 2022. Date of Publication: April 2022.
[Article]
AN: 2018336025
Objective: The objective of this analysis was to govern the analgesic effect of tramadol with caudal bupivacaine in children enduring inguinal-scrotal surgery postoperatively. Study design: A Quasi experimental study.
Method(s): In this comparative and double-blind study, 120 children undergoing inguinal scrotal surgery were involved in the analysis. They were 2-12 years old. The inclusion standards were children from ASA I and II. The two identical groups were formed. After initiation of general anesthesia, group A patients (n = 60) 0.25% bupivacaine 0.75 ml / kg was administered and tramadol 1 mg / kg with 0.25% bupivacaine 0.75 ml / kg were administered in B group (n = 60). Postoperative pain was evaluated with a visual analogue pain score in 6-7 years of age children and with behavioural reflexion in pre-speech children. Using a 4-point sedation scale; Sedation was assessed; heart rate, mean arterial pressure, arterial oxygen saturation and respiration rate. The sedation and pain were documented at consistent duration up to 24 hours after surgery immediately after recovery from anesthesia. If the pain score was higher than 4, paracetamol (20 mg / kg) was administered rectally.
Result(s): Addition of intravenous bupivacaine and tramadol suggestively have longer postoperative analgesia (10.1 +/- 2.1 hours) in group B, while the mean duration of analgesia (2.90 +/- 0.79 hours) in group A, where bupivacaine alone was, provided. No significant changes were observed in blood pressure, O2 saturation and heart rate between groups. Apart from vomiting and nausea, no side effects like retention of urine, depression and pruritus were observed.
Conclusion(s): In children undergoing inguinal scrotal surgery, caudal bupivacaine and tramadol have more lasting and better postoperative analgesia than bupivacaine alone.

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Publisher
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125.

Mode of Anesthesia and Bladder Management Following Orthopaedic Surgery in Children With Cerebral Palsy: A System Level Analysis.
Buckon C.E., Koscielniak N.J., Tucker C.A., Aiona M.D.
Embase
Journal of Pediatric Orthopaedics. 42(5) (pp E544-E549), 2022. Date of Publication: 01 May 2022.
[Article]
AN: 2017603811
Background: Postoperative urinary retention (POUR) is a surgical complication more prevalent in children with neurodisability and associated with an increase length of hospitalization. Risk factors include pre-existing bladder dysfunction, type and duration of surgery, anesthesia medications, postoperative opioid pain management, and patient demographics. The purpose of this investigation was (1) to determine the frequency of POUR following hip/lower limb orthopaedic procedures in which epidural analgesia was used for pain management; (2) to explore factors influencing postoperative bladder management.
Method(s): A retrospective analysis of clinical data was performed in an orthopaedic specialty care health care system. A health outcomes network was queried for patients with a diagnoses of cerebral palsy (ICD-9/10 codes) who had one of 57 unique CPT procedure codes corresponding to hip osteotomies or tenotomies from 2011 to 2019. All surgical observations included in analysis required a discrete data element and the confirmation of a secondary proxy. The database was also queried for postoperative medications received and patient demographics of interest.
Result(s): A total of 704 surgical procedures met inclusion criteria resulting in a patient population with a mean age of 11 years, 58% male, 53% Caucasian, and 55% classified as quadriplegia [51% Gross Motor Function Classification System (GMFCS) levels IV/V]. Three hundred and thirty-five procedures (48%) involved epidural anesthesia. Sixty-five patients required intermittent catheterization (9.2%) postoperatively following foley catheter removal, of which 23 (3.3%) required recatheterization. The rate of recatheterization was similar regardless of anesthesia mode; 1.8% for general and 1.4% for epidural and was associated with a greater number of pain medications. Epidural anesthesia resulted in significantly longer periods of catheterization. For the total group the time to urinary catheter removal differed significantly among cerebral palsy subtypes, GMFCS Level, race, and ethnicity. Factors identified as significant predictors of the length of catheterization were epidural analgesia, number of pain medications, and osteotomy.
Conclusion(s): The number of postoperative pain medications utilized was more predictive of POUR than the mode of analgesia delivery; however, epidural analgesia and the type of surgical procedure did significantly impact the length of catheterization.
Level of Evidence: Level III.

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126.

Perioperative opioid use in paediatric inguinal hernia patients: A systematic review and retrospective audit of practice.
Hageman I.C., Tien M.Y., Trajanovska M., Palmer G.M., Corlette S.J., King S.K.
Embase
Journal of Pediatric Surgery. 57(7) (pp 1249-1257), 2022. Date of Publication: July 2022.
[Article]
AN: 2017598736
Background: Opioids play a major role in postoperative pain management in children, but their administration remains an under investigated topic. This study aimed to describe perioperative opioid prescribing practices for paediatric inguinal hernia patients in the literature and at The Royal Children's Hospital (RCH) in Melbourne, Australia. Material/method: A systematic review of English articles (published from 2009 to 2019) was conducted on paediatric (0-18y) inguinal hernia patients who received a postoperative or discharge opioid prescription, or both. The review was combined with a retrospective audit of RCH patients. Demographic, surgical, and analgesic details were collected from the electronic medical records.
Result(s): Fifteen studies (n = 1166; combined mean age 4.93y) met the systematic review criteria. The percentage of patients receiving opioids postoperatively overall ranged from 3.33-100%, and doses ranged from 0.07 to 0.35 mg/kg oMEDD. At the RCH, perioperative opioid use was analyzed from 150 inguinal hernia patients (male - 113, median age - 3 months old). Postoperatively, 26 (17.3%) patients received opioids. The most commonly administered opioids were fentanyl (0.04-0.60 mg/kg oMEDD) in the post anaesthesia care unit and oxycodone (0.14-0.40 mg/kg oMEDD) in the first 24 h postoperatively. Older age at surgery, female sex and absence of regional anaesthesia were significantly associated with higher risk of total opioid use. No patients received an opioid prescription at discharge.
Conclusion(s): There is demonstratable variability in opioid prescribing practices for paediatric inguinal hernia patients as described in the literature. At our institution opioids were not used frequently in postoperative period.

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127.

Evaluation of the Safety of Ketorolac in Postsurgical Infants Less Than Six Months of Age.
McElroy N.A., Bustin A., Gattoline S.
Embase
Journal of Pediatric Pharmacology and Therapeutics. 27(4) (pp 347-351), 2022. Date of Publication: 2022.
[Article]
AN: 2016892334
OBJECTIVE Ketorolac-related adverse events are not yet elucidated in neonates and infants given paucity of data. The objective of this research is to determine the incidence of major bleed in postsurgical neonates and infants treated with ketorolac, and to describe characteristics of ketorolac therapy and its effect on renal function. METHODS This retrospective review assessed postsurgical patients younger than 6 months of age, without renal and/or coagulation dysfunction, who received ketorolac for postoperative pain during the study period. Major bleed was defined as a decrease in hemoglobin by >= 2 g/dL in a 24-hour period and/ or intracranial, intraventricular, gastrointestinal, or pulmonary hemorrhage. Renal injury was identified per pediatric-modified RIFLE (risk, injury, failure, loss, end stage renal disease) criteria. RESULTS One hundred twenty-five patients were analyzed, having a mean dosing weight of 5.6 kg, gestational age of 37.2 weeks, and postnatal age of 3.8 months. Ketorolac therapy was most frequently 0.5 mg/kg intravenously every 6 hours with a mean of 6.7 doses administered. The primary endpoint of major bleed occurred in 2 (1.6%) 2-month-old patients of 39 weeks' gestation. Both bleeds were characterized by decrease in hemoglobin without evidence of clinically significant bleeding. One (0.8%) and 3 (2.4%) patients experienced a decrease in glomerular filtration rate and urine output, respectively. Sixty-two (49.6%) patients received a concomitant medication associated with decreased bleeding risk. CONCLUSIONS Ketorolac appears to have low incidence of major bleeds in postsurgical patients younger than 6 months of age without renal and/or coagulation dysfunction. Larger, prospective studies are needed to confirm safety of ketorolac use in this population. ABBREVIATIONS BUN, blood urea nitrogen; CBC, complete blood count; EMR, electronic medical record; GA, gestational age; GFR, glomerular filtration rate; H2RA, histamine-2 receptor antagonist; IV, intravenous; NSAID, non-steroidal anti-inflammatory drug; PMA, post-menstrual age; PNA, postnatal age; pRIFLE, pediatric risk, injury, failure, loss, end stage renal disease; PPI, proton pump inhibitor; SCr, serum creatinine.

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128.

Randomized trial of prophylactic antibiotics vs. placebo after midshaft-to-distal hypospadias repair: the PROPHY Study.
Faasse M.A., Farhat W.A., Rosoklija I., Shannon R., Odeh R.I., Yoshiba G.M., Zu'bi F., Balmert L.C., Liu D.B., Alyami F.A., Beaumont J.L., Erickson D.L., Gong E.M., Johnson E.K., Judd S., Kaplan W.E., Kaushal G., Koyle M.A., Lindgren B.W., Maizels M., Marcus C.R., McCarter K.L., Meyer T., Qureshi T., Saunders M., Thompson T., Yerkes E.B., Cheng E.Y.
Embase
Journal of Pediatric Urology. 18(2) (pp 171-177), 2022. Date of Publication: April 2022.
[Article]
AN: 2016821492
Background: Use of prophylactic antibiotics after stented hypospadias repair is very common, but most research has not identified any clinical benefits of this practice. Only one study has found that postoperative prophylaxis reduces symptomatic urinary tract infections (UTIs). Data from the same trial suggested that prophylaxis may also reduce urethroplasty complications. No studies on this subject have been placebo-controlled.
Objective(s): We performed a randomized, double-blind, placebo-controlled study to evaluate the effect of postoperative prophylactic antibiotics on the incidence of infection or urethroplasty complications after stented repair of midshaft-to-distal hypospadias. Study design: Boys were eligible for this multicenter trial if they had a primary, single-stage repair of mid-to-distal hypospadias with placement of an open-drainage urethral stent for an intended duration of 5-10 days. Participants were randomized in a double-blind fashion to receive oral trimethoprim-sulfamethoxazole or placebo twice daily for 10 days postoperatively. The primary outcome was a composite of symptomatic UTI, surgical site infection (SSI), and urethroplasty complications, including urethrocutaneous fistula, meatal stenosis, and dehiscence. Secondary outcomes included each component of the primary outcome as well as acute adverse drug reactions (ADRs) and C. difficile colitis.
Result(s): Infection or urethroplasty complications occurred in 10 of 45 boys (22%) assigned to receive antibiotic prophylaxis as compared with 5 of 48 (10%) who received placebo (relative risk [RR], 2.1; 95% confidence interval [CI], 0.8 to 5.8; p = 0.16). There were no significant differences between groups in symptomatic UTIs, SSIs, or any urethroplasty complications. Mild ADRs occurred in 3 of 45 boys (7%) assigned to antibiotics as compared with 5 of 48 (10%) given placebo (RR, 0.6; 95% CI, 0.2 to 2.5; p = 0.72). There were no moderate-to-severe ADRs, and no patients developed C. difficile colitis.
Conclusion(s): In this placebo-controlled trial of 93 patients, prophylactic antibiotics were not found to reduce infection or urethroplasty complications after stented mid-to-distal hypospadias repair. The study did not reach its desired sample size and was therefore underpowered to independently support a conclusion that prophylaxis is not beneficial. However, the result is consistent with most prior research on this subject. Clinicaltrials.gov identifier: NCT02096159
[Table presented]

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129.

Postoperative management of pediatric patients undergoing minimally invasive repair of pectus excavatum: Where are we now?.
Kirupaharan S., Briatico D., Robinson T., Fitzgerald P., Walton J.M.
Embase
Journal of Pediatric Surgery. 57(5) (pp 927-931), 2022. Date of Publication: May 2022.
[Article]
AN: 2016513968
Purpose: Minimally invasive repair of pectus excavatum (MIRPE) often leads to a painful and challenging recovery period. This study aims to describe the postoperative management of pediatric patients undergoing MIRPE and compare postoperative outcomes between patients using different routes of postoperative analgesia.
Method(s): Retrospective chart review of pediatric patients who underwent MIRPE from July 2003 to September 2019 at a single pediatric tertiary care center. Data on pain management and course of hospital stay were ascertained. Descriptive statistics, Mann-Whitney U and Pearson Chi-Square tests were used to analyze data. A p-value <0.05 was considered significant.
Result(s): Of the 115 patients identified, 58 (50.4%) managed pain postoperatively using thoracic epidural and 57 (49.6%) used intravenous patient-controlled analgesia (IVPCA). The transition from the predominant use of epidural to IVPCA for MIRPE occurred between 2012 and 2013. Higher pain scores were reported by the IVPCA group at 6 h (p<0.001) and 12 h (p<0.001) postoperative. Patients using IVPCA had lower postoperative opioid consumption (p<0.001) and switched to oral opioids sooner than the epidural group (p<0.001). Fewer patients in the IVPCA group required urinary catheterization (p<0.001). Patients using IVPCA had a shorter hospital stay (4 days [IQR 4-5]) compared to the epidural group (5.5 [IQR 5-6]; p<0.001). Readmission was comparable at 3.48% in the total sample.

Conclusion(s): Patients using intravenous patient-controlled analgesia reported higher pain scores however, this route of analgesia was associated with shorter hospital stay. Prospective studies designed to address moderator variables are required to confirm findings and develop standardized recovery protocols.

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130.

Documenting urine output for pediatric urology patients in the post-anesthesia care unit: A quality improvement initiative.
Zann A., Wolfe R., Samora J.
Embase
Journal of Pediatric Urology. 18(2) (pp 131.e1-131.e7), 2022. Date of Publication: April 2022.
[Article]
AN: 2016403505
Introduction: Close monitoring and documentation of urine output (UOP) after urologic surgery is a nursing standard of care in the post-anesthesia care unit (PACU). UOP is a critical piece of information for surgeons and anesthesiologists to provide safe quality patient care. The electronic medical record (EMR) is used to communicate this information between members of the care team. Initial review at our institution confirmed only 31.3% of children recovering in the PACU after urologic surgery had a numerical value for UOP documented in the EMR.
Objective(s): The aim of this project was to improve compliance of UOP documentation in the EMR for pediatric urologic patients in the PACU from 31.3% to 80% by August 2021, using quality improvement methodology. Study design: Patients undergoing urologic surgery with planned post-operative hospital admission were identified in the EMR by admission status and Current Procedural Terminology (CPT) code. UOP documentation data during the patients' PACU stay was retrieved from the EMR. Traditional QI methods were used to develop a key driver diagram, identify barriers, and implement targeted interventions. Statistical process control charts tracked the outcome measure (percentage of patients with UOP documented in the PACU) and balancing measure (average PACU length of stay).
Result(s): The project began in July 2019, and four interventions started between July and October 2019. These interventions resulted in a centerline shift of our outcome measure, UOP documentation rate, from 31.3% to 76.2% ($p < 0.001$). Patient volumes were stable with the

exception of March, April, and May 2020 during the Covid-19 pandemic. An X-bar chart tracked PACU LOS, the balancing measure, in average minutes per patient without any trends.
Discussion(s): This quality improvement initiative sought to improve urine output (UOP) documentation for pediatric urologic patients during the immediate post-operative period. Targeted interventions leading to this improvement included educating nursing staff, establishing direct communication expectations for the surgical team, and improving the availability of UOP measurement tools. Limitations include reliance on education and behavioral change, only including urologic surgery patients, and our institution's robust focus on quality improvement work.
Conclusion(s): This performance improvement initiative successfully increased the rate of UOP documentation by PACU nurses for pediatric urology patients through a combination of interventions. The next phase is to expand these interventions throughout the hospital to improve UOP documentation for all post-operative patients.[Formula presented]

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131.

Evaluation of the Postoperative Analgesic Effect of 2 Different Blocks after Pediatric Circumcision Surgery.
Mutlu M., Turkmen S.
Embase
Urologia Internationalis. 106(5) (pp 527-532), 2022. Date of Publication: 01 May 2022.
[Article]
AN: 2015538860
Background: Circumcision is a painful day-case surgery. Regional anesthesia techniques are used effectively for anesthesia and postoperative analgesia after pediatric circumcision surgery.
Objective(s): Our prospective observational study aimed to compare postoperative analgesic efficiency of a dorsal penile nerve (DPN) block with a transversus abdominis plane (TAP) block after male pediatric circumcision surgery and complications related to each block.
Study Design: We enrolled 80 male children under the age of 10 years with American Society of Anesthesiologists I-II status scheduled for circumcision in this prospective observational study. A TAP or DPN block was performed after induction of general anesthesia before surgery with

ultrasound (US) guidance. Postoperative pain was assessed with Faces Pain Scale-Revised and the Faces, Legs, Activity, Cry and Consolability scale.
Result(s): There was no statistically significant difference between the groups regarding 30-min pain score levels ($p > 0.05$). But, the 1st hour, 2nd hour, 6th hour, 12th hour, and 24th-hour pain score levels in the TAP block group were statistically significantly higher than those of the DPN block group ($p < 0.05$). The 1st rescue analgesic requirement in the TAP block group was at the 6th hour postoperative. There was no need for rescue analgesia in the DPN block group during the postoperative 24-h follow-up.
Discussion(s): A US-guided DPN block provided effective and long-lasting postoperative analgesia for circumcision surgery with statistically significantly lower pain score levels than a US-guided TAP block.
Conclusion(s): This study found that a TAP block alone was insufficient to provide adequate postoperative analgesia for circumcision surgery compared to DPN block.

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132.

Comparison of the oropharyngeal leak pressure between three second generation supraglottic airway devices during laparoscopic surgery in pediatric patients.
Sinha C., Kumar N., Kumar B., Kumar A., Kumar R.
Embase
Paediatric Anaesthesia. 32(7) (pp 843-850), 2022. Date of Publication: July 2022.
[Article]
AN: 2015518473
Background: Previous studies have shown Proseal LMA and I gel similar to endotracheal intubation in ventilatory ability in pediatric laparoscopic surgeries.
Aim(s): The primary aim of this study was to assess whether there is a significant difference in the oropharyngeal leak pressure between Ambu Auragrain, I-gel, and Proseal LMA during pediatric laparoscopic surgery.
Method(s): In this randomized controlled trial, 90 male patients of American Society of Anesthesiologists physical status I aged between 6 months and 10 years who were scheduled for laparoscopic single-sided inguinal hernia repair were recruited and randomly allocated to three groups in which airway was secured with Ambu Auragain, I gel, or Proseal LMA. The primary outcome was oropharyngeal leak pressure. The secondary outcomes were peak pressures before and after pneumoperitoneum, fiberoptic view, insertion attempts, insertion time, manipulations, perioperative and postoperative anesthesia-related problems. Continuous variables were compared using the one-way analysis of variance or the Kruskal-Wallis test with post hoc Turkey analysis. Categorical and ordinal data were compared using the chi-square test or Fisher's exact test.
Result(s): Oropharyngeal leak pressure before pneumoperitoneum was higher with I gel as compared to Ambu Auragain (27.36 +/- 5.72 cm of H2O vs 23.56 +/- 5.72 cm of H2O) ($p = .021$)

and PLMA (27.36 +/- 5.72 cm of H2O vs 23.24 +/- 4.35 cm of H2O) (p =.011). Oropharyngeal leak pressure after pneumoperitoneum was also higher with I gel as compared to Ambu Auragain (31.58 +/- 4.35 cm of H2O vs 26.83 +/- 5.00 cm of H2O) (p =.001) and Proseal LMA (31.58 +/- 4.35 cm of H2O vs 27.03 +/- 3.80 cm of H2O) (p =.002). Oropharyngeal leak pressures of Ambu Auragain and Proseal LMA were comparable. Postoperative complications were similar in all the supraglottic airway devices. No regurgitation or aspiration-related problem was observed in our study.
Conclusion(s): I gel had a higher oropharyngeal leak pressure than the other two supraglottic airway devices and therefore may represent a better choice in situations where higher ventilatory pressures may be necessary, for example, in extremes of weight trendelenburg position, etc.
Clinical Trial Identifier: Clinical trial registry of India (CTRI/2018/11/016445).

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133.

Clinical Update on Patient-Controlled Analgesia for Acute Postoperative Pain.
Motamed C.
Embase
Pharmacy. 10(1) (no pagination), 2022. Article Number: 22. Date of Publication: February 2022. [Review]
AN: 2015495649
Patient-controlled analgesia (PCA) is an effective method for controlling acute pain, including postoperative pain in adults and in children from five years of age, pain resulting from labor, trauma, or other medical situations, or chronic and malignant pain. The treatment consists of a mini-computer-controlled infusion pump permitting the administration of on-demand, continuous, or combined doses of analgesic (mainly opioid) variations in response to therapy, which allows pain to be significantly controlled. Intravenous (IV)-PCA minimizes individual pharmacodynamics and pharmacokinetic differences and is widely accepted as a reference method for mild or severe postoperative pain. IV-PCA is the most studied route of PCA; other delivery methods have been extensively reported in the literature. In addition, IV-PCA usually voids the gap between pain sensation and analgesic administration, permitting better recovery and fewer side effects. The most commonly observed complications are nausea and vomiting, pruritus, respiratory depression, se-dation, confusion and urinary retention. However, human factors such as

pharmacy preparation and device programming can also be involved in the occurrence of these complications, while device failure is much less of an issue.

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134.

Comparison of Single-Incision Scrotal Orchiopexy and Traditional Two-Incision Inguinal Orchiopexy for Primary Palpable Undescended Testis in Children: A Systematic Review and Meta-Analysis.
Yu C., Hu Y., Wang L., Kang L., Zhao J., Lu J., Lin T., He D., Wu S., Wei G.
Embase
Frontiers in Pediatrics. 10 (no pagination), 2022. Article Number: 805579. Date of Publication: 15 Mar 2022.
[Review]
AN: 2015448369
Purpose: To compare the safety, efficacy, and cosmetic results of single-incision scrotal orchiopexy (SISO) and traditional two-incision inguinal orchiopexy (TTIO) for primary palpable undescended testes (PUDTs) in children.
Material(s) and Method(s): A systematic literature search of all relevant studies published on PubMed, Embase, Medline, Cochrane Library, Web of Science database, and Wanfang data until July 2021 was conducted. The operative time, hospitalization duration, conversion rate, wound infection or dehiscence, scrotal hematoma or swelling, testicular atrophy, reascent, hernia or hydrocele, analgesics needs, and cosmetic results were compared between SISO and TTIO using the Mantel-Haenszel or inverse-variance method.
Result(s): A total of 17 studies involving 2,627 children (1,362 SISOs and 1,265 TTIOs) were included in the final analysis. The conversion rate of SISO was 3.6%. The SISO approach had a statistically significant shorter operative time than the TTIO approach for PUDT (weighted mean difference-11.96, 95% confidence interval -14.33 to -9.59, I2 = 79%, P < 0.00001) and a shorter hospital stay (weighted mean difference-1.05, 95% confidence interval -2.07 to -0.03, P = 0.04). SISO needed fewer analgesics and had better cosmetic results than TTIO. SISO had a similar total, short-term, or long-term complication rate with TTIO.
Conclusion(s): Compared with TTIO, SISO has the advantages of shorter operative time, shorter hospitalization duration, less postoperative pain, and better cosmetic appealing results. SISO is a safe, effective, promising, and potential minimal invasive surgical approach for PUDT. SISO is an alternative to TTIO in selected cryptorchid patients, especially for lower positioned ones.
Systematic Review Registration: https://www.crd.york.ac.uk/PROSPERO/, identifier: CRD42021268562.

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135.

The fat anchor orchiopexy technique: results and outcomes from 150 cases surgical experience.
Spinelli C., Bertocchini A., Cito G., Ghionzoli M., Strambi S.
Embase
Pediatric Surgery International. 38(2) (pp 351-356), 2022. Date of Publication: February 2022.
[Article]
AN: 2011475427
Purpose: The purpose of the study is to evaluate results and outcomes in a long-time follow-up period, by performing a novel testicular fixation procedure, known as "fat anchor orchidopexy" (FAO), for the treatment of palpable low inguinal undescended testis.
Material(s) and Method(s): We retrospectively reviewed all patients who underwent scrotal orchiopexy technique, from May 2013 to May 2019, at the Pediatric Surgery Division of Department of Surgical Pathology, University of Pisa (Italy). FAO (Spinelli's technique) consists in anchoring the testicles to sub-scrotal fat with a single trans-scrotal incision. All the patients enrolled had history of unilateral or bilateral undescended testis. Data collected included patient's age, operative times and complications.
Result(s): A total of 150 children with cryptorchidism were treated using a single trans-scrotal orchiopexy. Of them, 130 patients (86.7%) had unilateral undescended testis and 20 (13.3%) bilateral cryptorchidism. Mean patient's age was 21 months (range: 14-28 months). All the procedures were planned in a day-surgery setting. Trans-scrotal orchiopexy was successful in all cases and no patients required an additional groin incision. No intraoperatively and postoperatively major complications were observed. Patients' post-operative pain was mild (mean pediatric visual analog scale = 2). In all cases, the healing process was rapid and no surgical wounds infections were reported during the post-operative period, referring excellent cosmesis results. During a mean 48-month follow-up period, no testicular retraction, recurrence or testis atrophy was reported.
Conclusion(s): The original Spinelli's technique (FAO) proves to be a safe and effective method for the treatment of palpable or distal-to-external-inguinal-ring testes. No immediate and delayed post-surgery complications were reported. In all cases, the anchored testicle remained in the scrotal position with normal vascularization. This novel surgical technique could give better options for scrotal fixation in case of low-lying cryptorchid testes.

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136.

Ultrasound-Guided Comparison of Psoas Compartment Block and Supra-Inguinal Fascia Iliaca Compartment Block for Pain Management in Pediatric Developmental Dysplasia of Hip Surgeries.
Quan J., Yang S., Chen Y., Chen K., Yu S.
Embase
Frontiers in Pediatrics. 9 (no pagination), 2022. Article Number: 801409. Date of Publication: 02 Feb 2022.
[Article]
AN: 637259867
Background: The aim of this study was to compare psoas compartment block (PCB) and supra-inguinal fascia iliaca compartment block (SFIB) in terms of pain management and the need for additional systemic analgesia in the perioperative phase of developmental dysplasia of the hip (DDH).
Material(s) and Method(s): Sixty pediatric patients were randomized into the PCB group and the SFIB group. The Numeric Rating Scale (NRS) pain scores were used to assess postoperative pain during the initial 24 h after extubation. Sufentanil consumption, patient-controlled analgesia (PCA) demands, and complications were also recorded.
Result(s): The NRS pain scores were significantly lower in the PCB group than in the SFIB group at 0, 4, 8, 12, and 24 h after extubation (all P < 0.01). Postoperatively, 13.8% of patients in the PCB cohort received additional administration of sufentanil, in contrast to 63.3% of the SFIB cohort (P < 0.01). In the PCB group, 0 (0-0) mcg/kg sufentanil was administered, while in the SFIB group 0.1 (0-0.2) mcg/kg (P < 0.01). In addition, the PCB group had fewer PCA demands than the SFIB group within the initial 24 h (P < 0.01). It took less operating time to achieve SFIB as compared to PCB (P < 0.01). No adverse events related to two techniques were recorded.
Conclusion(s): PCB provided a better perioperative pain management in pediatric patients with the DDH surgeries compared to SFIB. It also reduced the need for supplementary systemic analgesia.

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137.

Equianalgesia, opioid switch and opioid association in different clinical settings: a narrative review.
De Iaco F., Mannaioni G., Serra S., Finco G., Sartori S., Gandolfo E., Sansone P., Marinangeli F.
Embase
European Review for Medical and Pharmacological Sciences. 26(6) (pp 2000-2017), 2022. Date of Publication: 2022.
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Emergency or postoperative pain often represents an authentic challenge in patients who were already on opioid treatment for chronic pain. Thus, their management requires not only the physician's ability to treat acute pain, but also competence in switching the opioid that lost efficacy. Different aspects should be considered, such as opioids titration, switching, association and equianalgesia. The objective of this paper is to provide a narrative review, which has been elaborated and discussed among clinicians through an iterative process involving development and review of the draft during two web-based meetings and via email. This expert opinion aims to facilitate the correct opioid use through appropriate practices with a focus on pain treatment in emergency and postoperative pain. Equianalgesia tables were reviewed and integrated by clinicians and researchers with expertise in anesthesia, postoperative medicine, intensive care, emergency medicine pharmacology and addiction medicine. Special populations (liver/kidney failure, elder, pediatric, pregnancy/lactation) are discussed in detail along with other critical scenarios, such as: (i) rapid pain worsening in chronic pain (aggravating pain due to disease progression or tolerance development to analgesic therapy); (ii) acute pain on maintenance treatment; and (iii) pain management of complicated patients in emergency care. Extended and updated equianalgesia tables and conversion rates for 17 different opioid formulations (of 9 different molecules) are presented as follows. Opioids remain the class that best suits clinical needs of emergency and post-operative medicine. However, it should be stressed that equianalgesia can be affected by drug-to-drug interactions and pharmacological imprecision, in a complex field where clinical experience may be the main guiding principle.

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138.

A Post-Marketing Study of Pethidine in Indonesia: Safety Profile.
Thobari J.A., Haposan J., Nurwahidin M., Chandra L.A., Riswiyanti A., Sari D., Widyastuti Y., Sudarwanti, Hidayati N., Dewi R.K., Purnamasari R., Pudjiati D.J.
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Open Access Macedonian Journal of Medical Sciences. Part A. 10 (pp 519-524), 2022. Date of Publication: 01 Jan 2022.
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AN: 2016373547
BACKGROUND: Pethidine, along with morphine and tramadol, is one of the frequently used drugs for post-operative pain management. It is important to ensure the product's safety and, ultimately, the safety of the patients as users of pethidine. AIM: We aimed to investigate safety profile of Pethidine in Indonesia.
METHOD(S): A post-marketing surveillance study was conducted with a retrospective cross-sectional design using medical records and hospital pharmacy data in patients admitted to the inpatient or emergency department of Dr. Sardjito General Hospital, Yogyakarta, between January and December 2016. The data were analyzed descriptively to estimate the proportion of adverse events (AEs), including serious adverse events (SAEs).
RESULT(S): Of the 576 patients hospitalized at the Dr. Sardjito General Hospital, 200 medical records were selected using a consecutive sampling method. A total of 120 of the 200 subjects were found to have 245 any adverse events (AEs), including serious adverse events (SAEs) following the administration of pethidine. There were 23 classifications of expected AE and 148 classifications of unexpected AE following the administration of pethidine. The duration of AE/SAE found ranged from 0 to 11 days. A total of 101 (50.5%) and 85 (42.5%) subjects experienced AE/ SAE with duration <24 h and between 1 and 2 days, respectively. The most extended duration of the event was pain with 11 days. There were 23 types of expected AE/SAE from pethidine found in subjects, with the highest number of expected AE/SAE were weakness, vomiting, and dizziness of 24 (25%), 16 (16.8%), and 10 (10.5%), respectively. The expert panel team, with consideration of other concomitant medications, concluded five types of unexpected SAEs that are possible to pethidine, including respiratory acidosis, urinary tract infections, acute kidney injury, icteric, and electrolyte imbalance.
CONCLUSION(S): A post-marketing surveillance study provides a 50 mg/ml pethidine safety profile in Indonesia. A total of 120 of the 200 subjects who received pethidine experienced 245 adverse events (AEs) or serious adverse events (SAEs). AEs/SAEs were divided into 23 expected events and 148 types of unexpected events. According to expert panel review, few SAEs were considered possibly related to pethidine. No evidence emerged of previously unknown side effects.

Status
Embase
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Publisher
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139.

Intraoperative Hypotension and Acute Kidney Injury after Noncardiac Surgery in Infants and Children: A Retrospective Cohort Analysis.
Schacham N.Y., Chhabada S., Efune P.N., Pu X., Liu L., Yang D., Raza P.C., Szmuk P., Sessler D.I.
Embase
Anesthesiology. 136(1) (pp 93-103), 2022. Date of Publication: 01 Jan 2022.
[Article]
AN: 2016121791
Background: Age- and sex-specific reference nomograms for intraoperative blood pressure have been published, but they do not identify harm thresholds. The authors therefore assessed the relationship between various absolute and relative characterizations of hypotension and acute kidney injury in children having noncardiac surgery.
Method(s): The authors conducted a retrospective cohort study using electronic data from two tertiary care centers. They included inpatients 18 yr or younger who had noncardiac surgery with general anesthesia. Postoperative renal injury was defined using the Kidney Disease Improving Global Outcomes definitions, based on serum creatinine concentrations. The authors evaluated potential renal harm thresholds for absolute lowest intraoperative mean arterial pressure (MAP) or largest MAP reduction from baseline maintained for a cumulative period of 5 min. Separate analyses were performed in children aged 2 yr or younger, 2 to 6 yr, 6 to 12 yr, and 12 to 18 yr.
Result(s): Among 64,412 children who had noncardiac surgery, 4,506 had creatinine assessed preoperatively and postoperatively. The incidence of acute kidney injury in this population was 11% (499 of 4,506): 17% in children under 6 yr old, 11% in children 6 to 12 yr old, and 6% in adolescents, which is similar to the incidence reported in adults. There was no association between lowest cumulative MAP sustained for 5 min and postoperative kidney injury. Similarly, there was no association between largest cumulative percentage MAP reduction and postoperative kidney injury. The adjusted estimated odds for kidney injury was 0.99 (95% CI, 0.94 to 1.05) for each 5-mmHg decrease in lowest MAP and 1.00 (95% CI, 0.97 to 1.03) for each 5% decrease in largest MAP reduction from baseline.
Conclusion(s): In distinct contrast to adults, the authors did not find any association between intraoperative hypotension and postoperative renal injury. Avoiding short periods of hypotension should not be the clinician's primary concern when trying to prevent intraoperative renal injury in pediatric patients.

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Status
Embase
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Publisher
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140.

Standardization of caregiver and nursing perioperative care on gynecologic oncology wards in a resource-limited setting.
Wong J., Mulamira P., Arizu J., Nabwire M., Mugabi D., Nabulime S., Driwaru D., Nankya E., Batumba R., Hagara A., Okoth A., Lindan Namugga J., Ajeani J., Nakisige C., Ueda S.M., Havrilesky L.J., Lee P.S.
Embase
Gynecologic Oncology Reports. 39 (no pagination), 2022. Article Number: 100915. Date of Publication: February 2022.
[Article]
AN: 2016049838
Introduction: In Kampala, Uganda, there is a strong cultural practice for patients to have designated caregivers for the duration of hospitalization. At the same time, nursing support is limited. This quality improvement project aimed to standardize caregiver and nursing perioperative care on the gynecologic oncology wards at the Uganda Cancer Institute and Mulago Specialised Women and Neonatal Hospital.
Method(s): We developed, implemented, and evaluated a multidisciplinary intervention involving standardization of nursing care, patient education, and family member integration from October 2019 - July 2020. Data were abstracted from medical records and patient interviews pertaining to the following outcomes: 1) pain control; 2) post-operative surgical site infections, urinary tract infections, and pneumonia; 3) nursing documentation of medication administration, pain quality, and vital sign assessments, and 4) patient and caregiver education. Descriptive statistics, Fisher's exact test, and independent samples t-test were applied.
Result(s): Data were collected from 25 patients undergoing major gynecologic procedures. Pre- (N = 14) and post- (N = 11) intervention comparison demonstrated significant increases in preoperative patient education (0% to 80%, p = 0.001) and utilization of a comprehensive postoperative order form (0% to 45.5%, p = 0.009). Increased frequency in nursing documentation of patient checks (3 to 8, p = 0.266) and intraoperative antibiotic administration (9 to 10, p = 0.180) in patient charts did not reach significance. There was no change in infection rate, pain score utilization, caregiver documentation, or preoperative medication acquisition.
Conclusion(s): Our findings suggest that patient- and family-centered perioperative care can be improved through standardization of nursing care, improved education, and integration of caregivers in a nursing-limited setting.

Status
Embase
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141.

Children undergoing outpatient complex penile surgery and hypospadias repair may not require opioid analgesics.
Cornwell L.B., Campbell P.C., Ewing E., Swords K.A.
Embase
Journal of Pediatric Surgery. 57(4) (pp 678-682), 2022. Date of Publication: April 2022.
[Article]
AN: 2013187813
Background/Purpose: Pain control is important after penile surgery, and opioid use should be minimized as able. We sought to describe our experience performing complex penile surgeries with vs without post-operative opioids.
Method(s): A retrospective review of penile surgeries, including 3998 between 2009 and 2019. We identified patients <8 years who underwent outpatient penile surgery requiring either penile degloving or hypospadias repair. Patients who were or were not prescribed opioids were matched 1:1 by age and type of penile surgery. Primary outcomes of interest were pain-related encounters, delayed opioid prescription, and predictors of pain.
Result(s): 200 children were identified, 100 per group, with mean age 1.3 +/- 0.8 years. 48% were penile degloving procedures, 31% hypospadias repairs with catheters, and the remaining 21% hypospadias repairs without catheters. Perioperative features were comparable between groups($p > 0.05$). 59% of patients without opioids had an impromptu post-operative encounter vs 41%, and 20% had an associated pain complaint vs 9%($p = 0.026$). Two patients in both groups received delayed opioid prescription($p = 1.00$). The presence of a catheter (OR 2.9) and no opioid prescription (OR 2.6) were independent predictors for pain complaint.
Conclusion(s): Patients discharged without an opioid were more likely to contact a provider postoperatively and were more likely to endorse pain complaint (number needed to treat: 9).

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Status
Embase
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142.

The impact of routine post-anesthesia care unit extubation for pediatric surgical patients on safety and operating room efficiency.
Oviedo P., Engorn B., Carvalho D., Hamrick J., Fisher B., Gollin G.
Embase
Journal of Pediatric Surgery. 57(1) (pp 100-103), 2022. Date of Publication: January 2022.
[Article]
AN: 2015221063
Purpose: Maximizing operating room (OR) efficiency is essential for hospital cost containment and effective patient throughput. Little data is available regarding the safety and efficacy of extubation of children in the post-anesthesia care unit (PACU) by a nurse rather than in the OR. We sought to evaluate the impact of a long-standing practice of PACU extubation upon airway complications and OR efficiency.
Method(s): The records of 1930 children who underwent inguinal hernia repair, laparoscopic appendectomy or pyloromyotomy at a children's hospital between July, 2018 and June, 2020 were reviewed. Extubations were performed in the OR only when the PACU was inadequately staffed or during the early months of the Covid-19 pandemic. Cases in which there was a deep extubation, a PACU hold was in effect or a patient went directly to an inpatient unit from the OR were excluded. Intra- and post-operative time metrics were recorded and emergency airway interventions were assessed.
Result(s): 1747 operations were evaluated. Time from the end of the procedure to leaving the OR ranged from 4.1 to 4.8 min when extubation was done in the PACU and was 6-9 min less than with OR extubation. (see table). There were 23 airway events (1.5% of all cases) after PACU extubation that necessitated only brief bag-mask ventilation. There were no cases of re-intubation.
Conclusion(s): In a large population of children undergoing diverse surgical procedures, post-anesthesia care unit extubation was safe and resulted in rapid transfer of patients from the operating room after completion of their operation. Time saved because of shorter operating room times reduces hospital costs and can allow for increased throughput. Extubation in the post-anesthesia care unit may not only be as safe as operating room extubation, but may result in fewer serious airway events as patients may be less likely to have their endotracheal tube removed prematurely.
Level of Evidence: Treatment Study, Level III

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34688493 [https://www.ncbi.nlm.nih.gov/pubmed/?term=34688493]
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Embase
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143.

Comparison of Analgesic Efficacy of Local Anesthetic Infiltration and Ultrasound-guided Abdominal Wall Nerve Block in Children Undergoing Ambulatory Inguinal Hernia Repair.
Han D., Pan S.
Embase
Journal of perianesthesia nursing : official journal of the American Society of PeriAnesthesia Nurses. 37(5) (pp 699-705), 2022. Date of Publication: 01 Oct 2022.
[Article]
AN: 638331837
PURPOSE: Placement of local anesthetics either as infiltration (LAI) or as abdominal wall nerve block (AWNB) has been shown to reduce postoperative pain following laparoscopic surgery. We aimed to compare intraoperative remifentanil consumption and postoperative pain of AWNB and LAI in children undergoing ambulatory two-port laparoscopic inguinal hernia surgery with propofol-remifentanil based general anesthesia. DESIGN: Randomized controlled trial. METHOD(S): Children aged between 1 and 6 years undergoing two-port laparoscopic inguinal hernia repair were enrolled for analysis. These children received one of the three anesthesia regimens (1) standard general anesthesia (SGA); (2) SGA with preemptive LAI; (3) SGA with preemptive AWNB; and were categorized accordingly. Primary outcome variable were intraoperative average infusion rate of remifentanil and postoperative FLACC (Face, Legs, Activity, Cry, and Consolability) pain score. Secondary outcome data included demographics, intraoperative variables (hemodynamics and bispectral index score recorded at three different time points), and duration of surgery. FINDINGS: A total of 90 children (30 in each group) were included in the analysis. General information, intraoperative hemodynamic variables, bispectral index score, and duration of surgery were not significantly different among groups. The intragroup variation of hemodynamic variables were less stable in the SGA group compared with the other two groups, while BIS score was similar among groups. The intraoperative infusion rate of remifentanil was significantly lower in the AWNB group than in the SGA or the LAI group (median [25th to 75th centiles]: 0.11[0.11 to 0.11] microg/kg/min, 0.33[0.33 to 0.33] microg/kg/min; 0.17[0.17 to 0.20] microg/kg/min, respectively, P < .001 for both), and lower in the LAI group than in the SGA group (P < .001). The postoperative FLACC pain score was significantly lower in the AWNB group than in the SGA or the LAI group (P < .001 for both). CONCLUSION(S): AWNB is associated with a lower intraoperative remifentanil requirement and a lower postoperative FLACC pain score compared with LAI in children undergoing laparoscopic inguinal hernia repair with propofol-remifentanil based general anesthesia.

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35752525 [https://www.ncbi.nlm.nih.gov/pubmed/?term=35752525]
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Publisher
NLM (Medline)
Year of Publication

2022

144.

The effectiveness of a parent participation in postoperative pain management programs for children in a urology ward: A randomized controlled trial.
Yang J.-X., Yao W.-Y., Zhang F., Jiang W.-T., Gu Y., Xu H.-Z.
Embase
Journal of nursing scholarship : an official publication of Sigma Theta Tau International Honor Society of Nursing. 54(5) (pp 554-561), 2022. Date of Publication: 01 Sep 2022.
[Article]
AN: 636953007
BACKGROUND: Postoperative pain has adverse effects on children after urology treatment, including sleep disturbance, incision dehiscence, bleeding, and delayed recovery. Parents, as the most direct caregivers of children, can make accurate assessments of children's personal behaviors and responses, which is very important for the management of postoperative pain in children. PURPOSE: The purpose of the current study was to develop a Parent Participation in Postoperative Pain Management Program for children in a urology ward and to evaluate its effects on children's postoperative pain scores and other outcome indicators. DESIGN: This research comprised two phases. The first phase was the development of a Parent Participation in Postoperative Pain Management Program. The second phase was a randomized controlled trial between two groups, and was carried out in a 45-bed inpatient urology ward of a tertiary children's hospital in China. In the trial, 211 children and their parents were randomly selected as a control group between July 1 and August 15, 2019, and 202 children and their parents were randomly selected as an intervention group between August 16 and September 15, 2019. METHOD(S): Following the framework and methods of the Evidence-based Continuous Quality Improvement Model developed at Fudan University Evidence-Based Nursing Center, we systematically gathered evidence regarding parental involvement in postoperative pain management in children to construct the program. To evaluate the program's effectiveness, the control group performed routine postoperative pain management, while the intervention group underwent the Parent Participation in Postoperative Pain Management Program. The management period was during hospitalization, and generally ranged 3-7 days. The Statistical Table of Pain Assessment for Children after Urology was employed by researchers. FINDINGS: The results revealed no significant differences in demographic characteristics between the two groups of children and their parents. Children's pain scores during dressing removal (Z = -3.108, p = 0.002), at discharge (Z = -2.185, p = 0.029) and during catheter removal (Z = -6.553, p = 0.000) were significantly lower in the intervention group compared with the control group. CONCLUSIONS AND CLINICAL RELEVANCE: The Parent Participation in Postoperative Pain Management Program was found to be effective for alleviating postoperative pain scores among children, and provided useful information regarding postoperative pain management in children involving four aspects of parental involvement: cognition, guidance, documentation and support.

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Publisher
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Year of Publication
2022

145.

Perioperative acetaminophen is associated with reduced acute kidney injury after cardiac surgery.
Young A.M., Strobel R.J., Rotar E.P., Kleiman A., McNeil J.S., Teman N.R., Hawkins R.B., Raphael J., Mehaffey J.H.
Embase
Journal of Thoracic and Cardiovascular Surgery. (no pagination), 2022. Date of Publication: 2022.
[Article]
AN: 2020553696
Background: Cardiac surgery-associated acute kidney injury (AKI) is associated with increased postoperative morbidity and mortality. Evidence suggests an association between perioperative acetaminophen administration and decreased incidence of postoperative AKI in pediatric cardiac surgery patients; however, an effect in adults is unknown.
Method(s): All patients (n = 6192) undergoing coronary and/or valve surgery with a recorded Society of Thoracic Surgeons (STS) risk score at our institution between 2010 and 2018 were stratified by acetaminophen exposure on the day of surgery using institutional pharmacy records. AKI was determined using the Kidney Disease: Improving Global Outcomes (KDIGO) staging criteria. Logistic regression was used to analyze the association between perioperative acetaminophen and postoperative kidney injury or STS major morbidity. A sensitivity analysis using propensity score matching on the STS predicted risk of renal failure and cardiopulmonary bypass time was performed to account for time bias.
Result(s): Perioperative acetaminophen exposure was associated with lower odds of stage 1 to 3 acute kidney injury (odds ratio [OR], 0.68; 95% CI, 0.56-0.83; P <.001) and decreased prolonged postoperative ventilation (OR, 0.53; 95% CI, 0.37-0.76; P <.001). A sensitivity analysis provided well-balanced (standard mean difference <0.10) groups of 401 pairs, in which acetaminophen was associated with a decreased incidence of postoperative AKI (OR, 0.7; 95% CI, 0.52-0.94; P =.016).
Conclusion(s): Exposure to acetaminophen on the day of surgery was associated with a decreased incidence of AKI in our patients undergoing cardiac surgery. These data serve as a measure of effect size to further explore the therapeutic potential of acetaminophen to reduce postoperative AKI after cardiac surgery and to elucidate the mechanisms involved.

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Article-in-Press
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146.

Risks and benefits of pediatric inguinal hernia repair: Conventional open repair vs laparoscopic percutaneous extraperitoneal closure.
Kurobe M., Sugihara T., Harada A., Kaji S., Uchida G., Kanamori D., Baba Y., Hiramatsu T., Ohashi S., Otsuka M.
Embase
Asian journal of endoscopic surgery. 15(2) (pp 290-298), 2022. Date of Publication: 01 Apr 2022.
[Article]
AN: 636296042
INTRODUCTION: Considerable debate exists regarding the benefits of laparoscopic percutaneous extraperitoneal closure (LPEC) over conventional open repair (OR). We assessed the outcomes and feasibility of LPEC compared to OR for pediatric inguinal hernia (IH).
METHOD(S): We retrospectively analyzed 570 children who underwent LPEC or OR. Parents decided the operative method after obtaining informed consent. Patient characteristics, operative time, complications and contralateral metachronous IH (CMIH) were compared between the groups.
RESULT(S): A total of 329 children underwent LPEC and 241 underwent OR. There was no significant difference in the incidence of recurrence or testicular ascent between the LPEC and OR groups (0.3% vs 0.4%, P= 0.825, 0.3% vs 0.8%, P= 0.391, respectively). No testicular atrophy was recognized in either group. One patient with postoperative chronic inguinal pain was recognized in each group. There was no surgical site infection (SSI) in the OR group; however, the LPEC group more frequently demonstrated umbilical port site (UPS)-related complications, such as incisional hernia, minor deformity, granuloma formation, cellulitis and superficial SSI. Ten (4.1%) developed CMIH in OR; in contrast, no case of CMIH was experienced after LPEC (P<0.001).
CONCLUSION(S): In conclusion, both LPEC and OR are feasible in the management of pediatric IH, because of their high success rates and low risk of complications. LPEC could be the superior procedure with respect to the prevention of CMIH. However, to maximize the merits of LPEC over OR, it is important to reduce UPS-related complications in LPEC. A longer follow-up is needed to assess male fertility in patients who receive LPEC.

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Publisher
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Year of Publication
2022

147.

ASiT Surgical Innovation Summit - Future Surgery Show.
Anonymous
Embase
British Journal of Surgery. Conference: ASiT Surgical Innovation Summit - Future Surgery Show. London United Kingdom. 109(SUPPL 1) (no pagination), 2022. Date of Publication: March 2022. [Conference Review]
AN: 637536628
The proceedings contain 323 papers. The topics discussed include: a quality improvement project to assess and refine the handover process at morning trauma meetings; use of ketamine sedation for the treatment of minor plastic surgery procedures in the pediatric emergency department; neoadjuvant imatinib mesylate - an ace of spaces for surgical management of an oesophago-gastric junction gastro-intestinal stromal tumor; a retrospective cohort study of the use of Vivostat PRF autologous platelet-rich fibrin in patient outcomes in total knee replacement surgery; transperineal prostate biopsies: has the change in technique been effective?; implications of pre-operative ng fasting on nutrition in major burn patients: an audit of practice; computed tomography imaging to determine reduction in intracrainal pressure before after posterior vault expansion in apert syndrome; and many forms of bariatric surgery can be used to treat obese patients. is laparoscopic gastric plication the next gold standard?.
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CONFERENCE ABSTRACT
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148.

Erratum: Ultrasound-guided transverse abdominis plane block, ilioinguinal/iliohypogastric nerve block, and quadratus lumborum block for elective open inguinal hernia repair in children: a randomized controlled trial (Reg Anesth Pain Med (2022) 47 (217-21) DOI: 10.1136/rapm-2021-103201).
Anonymous
Embase
Regional Anesthesia and Pain Medicine. 47(6) (pp E2), 2022. Date of Publication: 01 Jun 2022. [Erratum]
AN: 638064672
On page 3, the first sentence in the first paragraph should read: The median postoperative paracetamol consumption was 300 (157.5), 240 (127.5), and 247.5 (127.5) mg in the TAP, II/IH, and QLB groups, respectively. One page 3, table 1 should read: (Table Presented).

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2022

149.

Codeine for Acute Pain Related to Caesarean Section
Hill S, Argaez C
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Canadian Agency for Drugs and Technologies in Health. CADTH Health Technology Review2021 03.
[Review]
UI: 34255445
Caesarean section (C-section) is a method of birth through an incision in the abdominal wall and uterine wall., C-section rates have steadily increased worldwide in the last 3 decades. In Canada, C-section birth rates increased by approximately 50.8% from 1997 to 2016. C-section births may be planned or unplanned if there are complications that arise before birth or during labour. These complications may include an adverse position of the baby close to the due date, health conditions for the pregnant patient that may be worsened due to the stress of labour, chances of vertical transmission of a pre-existing infection to the baby, labour that is slow or stops completely, or signs of distress shown by the baby during labour., Hospital recovery after a C-section birth typically lasts 2 to 5 days; however, it may take weeks to months for a full recovery., Acute pain can be described as pain caused by something specific and does not last longer than 6 months. Acute pain in the abdominal region is common after a C-section birth, and pain medications containing codeine, alone or in combination with nonsteroidal anti-inflammatory drugs (NSAIDs), have been used in the past to subdue post-operative pain., Oral codeine is hepatically metabolized by the polymorphic CYP2D6 enzyme to a clinically active metabolite (i.e., morphine). Because of this metabolization process, oral codeine has the potential for drug interactions and adverse effects may be unpredictable due to interindividual differences in metabolism of codeine into morphine. In Canada, codeine-containing products are authorized to relieve pain or suppress cough; however, there may be safety issues with the use of codeine in postpartum patients.- Specifically, in postpartum patients who are breastfeeding there is the potential for neonatal toxicity from prolonged codeine exposure,,, and there is the potential for central nervous system depression caused by opioid toxicity in both postpartum patients and breastfed babies. There are additional concerns with opioid use worldwide including inappropriate prescribing, opioid addiction and dependency, and opioid-related deaths, and Canada is the second-highest consumer of opioids. It is important to determine whether the clinical benefits of opioid use in patients who have undergone C-section outweigh the potential risks. Four other CADTH reports have reviewed the clinical effectiveness of codeine with or without accompanying NSAIDs for acute pain related to osteoarthritis of the knee and hip, urological or general surgery, orthopedic surgery, and for acute pain in pediatric patients. The purpose of this report is to evaluate the clinical effectiveness of codeine with or without acetaminophen or other NSAIDs for patients with acute pain who have undergone C-section.

Book Title
Codeine for Acute Pain Related to Caesarean Section
Version ID
1
Authors Full Name
Hill, Shannon, Argaez, Charlene
Publisher

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150.

Is tablet-based interactive distraction effective on pain and anxiety during circumcision in children? A randomized controlled trial.
Gezginci E, Suluhan D, Caliskan MB
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Turkish Journal of Urology. 47(6):518-525, 2021 Nov.
[Journal Article]
UI: 35118971
OBJECTIVE: Distraction is a nonpharmacological method commonly used during painful procedures in children. However, there are a few studies investigating the effectiveness of active distraction on pain and anxiety in children during circumcision. The purpose of this study was to evaluate the effectiveness of tablet-based interactive distraction on pain and anxiety in children during circumcision.
MATERIAL AND METHODS: To evaluate how tablet distraction could improve children's outcomes during circumcision, a single-center, nonblinded, randomized controlled, parallel group trial research design was employed. In this study, 35 children were included in tablet distraction group, which have a control group (n 1/4 35). The primary outcome measure was the Numeric Rating Scale for pain. Secondary outcome measure was the State- Trait Anxiety Scale for Children, and other outcome variables were physiological parameters and satisfaction levels.
RESULTS: During and after the surgical procedure, pain scores (P < .001, P < .001, respectively) and pulse rates (P < .001, P < .001, respectively) were significantly lower in the tablet distraction group, whereas O2 saturation was higher than the control group (P < .001, P < .001, respectively). After the procedure, the anxiety scores were significantly lower in the tablet distraction group (P < .001), whereas the satisfaction scores were higher than control group (P < .001).
CONCLUSION: This study concluded that the use of tablet distraction during circumcision has a positive effect on children's pain, anxiety, satisfaction levels, and physiological parameters.
Version ID
1
Status
PubMed-not-MEDLINE
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https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9612746
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151.

Anaesthetic Challenges in a Paediatric Patient with Escobar Syndrome-Difficult Airway and Postoperative Pneumothorax.
Ghaffar WB, Haq IU, Shahid A, Ismail S
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Turk Anestezi Ve Reanimasyon Dergisi. 49(6):486-489, 2021 Dec.
[Journal Article]
UI: 35110030
Escobar syndrome (ES) is an autosomal recessive disorder characterised by the presence of pterygia in cervical, antecubital and popliteal regions. Anaesthesiologist encounter notable challenges in this syndrome, especially airway management due to associated malformations like cleft lip/palate, micrognathia, syngnathia, ankyloglossia, neck contracture, cervical spine fusion, limited neck extension and craniofacial dysmorphism. In addition to difficult airway, anaesthesiologist may encounter other perioperative challenges. Here, we report a paediatric patient with ES, who required general anaesthesia for laparoscopic inguinal hernia repair and orchidopexy. Initial attempt with video laryngoscope failed due to inability to visualise epiglottis. Subsequent attempt with fibreoptic bronchoscope also failed due to rapid decrease in oxygen saturation. He was finally intubated with fibreoptic bronchoscope along with oxygen insufflation with a 3mm internal diameter polyvinylchloride endotracheal tube inserted nasally and connected to oxygen supply. Further perioperative challenges faced were intraoperative hyperthermia and postoperative pneumothorax with mediastinal shift. To the best of our knowledge, this is the first case reporting pneumothorax with mediastinal shift as a postoperative complication and use of oxygen insufflation through nasal tube during fibreoptic intubation in paediatric patient with ES.
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1
Status
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152.

Comparison of Mini-Percutaneous Nephrolithotomy by Standard and Miniperc Instruments in Pediatric Population: A Single-Center Experience.
Mahajan AD, Mahajan SA
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present

Journal of Indian Association of Pediatric Surgeons. 26(6):374-379, 2021 Nov-Dec.
[Journal Article]
UI: 34912133
OBJECTIVE: The objective of this study was to compare mini-percutaneous nephrolithotomy (PCNL) performed by standard and Miniperc techniques in pediatric patients.
MATERIALS AND METHODS: This was a retrospective study conducted at our institution between January 2012 and December 2017. The outcomes of pediatric renal stones treated by mini-PCNL done by Miniperc and standard techniques were compared in terms of the drop in the hemoglobin, stone-free rate, and analgesic requirement in the first 24 h.
RESULTS: A total of 57 children (age: 1-16 years), who underwent mini-PCNL by Miniperc equipment (n = 23) and standard equipment (n = 34), were included in this study. The postoperative mean drop in hemoglobin was significantly higher in mini-PCNL done by standard compared to the Miniperc technique. The stone-free rate was 95.65% in the Miniperc group and 94.12% in the standard mini-PCNL group. The need for analgesics was significantly lower in the Miniperc group compared to the standard mini-PCNL group (P = 0.0002). In the Miniperc group, the majority of the patients required only one dose of analgesics, whereas, in the standard mini-PCNL group, around 44% of the patients required three or more than three doses of analgesics to reduce postoperative pain.
CONCLUSION: Both the techniques were safe and efficacious in the management of pediatric renal stone and stone clearance. However, the Miniperc technique resulted in significantly less pain and a lower dosage of analgesics.

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1
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Year of Publication
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153.

An Analysis of Safety and Efficacy of Day-care Surgery in Children in a Tertiary Care Hospital in India.
Kumar R, Choudhury SR, Yadav PS, Kundal R, Gupta A, Hayaran N, Chadha R
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Journal of Indian Association of Pediatric Surgeons. 26(3):148-152, 2021 May-Jun.
[Journal Article]
UI: 34321785
BACKGROUND: Advances in surgery and anesthesia have paved the way for the establishment of day-care surgery (DCS). Observations that children achieve better convalescence in the home environment along with significant economic advantages have led to this paradigm shift in clinical practice.

AIMS AND OBJECTIVES: This study is aimed to evaluate the feasibility of performing various surgical procedures on day-care basis and assess parental satisfaction with DCS in children.
MATERIALS AND METHODS: In this prospective observational study, all children >3 months of age undergoing various elective surgical procedures as day-care cases in our institution were enrolled. Types of operations, complications, including any unplanned admissions and parental satisfaction, were recorded.
RESULTS: Between December 2015 and December 2018, a total of 654 day-care surgeries were performed in our institution by pediatric surgeons. The mean age was 5.5 years with M: F 5.5:1. Thirty different surgical procedures were successfully performed as DCS, the common procedures being inguinal herniotomy (31.5%), and orchidopexy (14.3%). Unplanned admissions were recorded in 2.29% (15/654) patients (scrotal edema-5, postoperative pain-8, and a long recovery from anesthesia-2). No major complications occurred; two minor complications during follow-up were superficial wound infection and drug reaction. Overall parental satisfaction was very high (100%)-preoperative prolonged fasting period and long waiting time in the preoperative room of afternoon shift patients (7.95% and 8.3%) were the reasons for their discontent.
CONCLUSIONS: DCS in children is safe and effective with high parental satisfaction. It can substantially reduce the waiting list for several surgical procedures in children.

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1
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https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8286014
Year of Publication
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154.

Inguinal hernia repair with or without mesh in late adolescent males.
Kim SH, Jung HS, Park S, Cho SS
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Annals of surgical treatment and research. 100(4):246-251, 2021 Apr.

[Journal Article]
UI: 33854994
PURPOSE: Inguinal hernia repair is one of the most common treatments worldwide, but there are few studies about the use of mesh in late adolescent patients because hernias are rare in this group. This study aimed to evaluate the postoperative outcomes of hernia repair with and without mesh in late adolescent patients.
METHODS: We retrospectively reviewed the data of 243 male patients aged between 18 and 21 years who underwent inguinal hernia repair at a single institution from January 2013 to December 2017. We distinguished 2 groups depending on the repair method; mesh (n = 121) and no-mesh (n = 122) groups. We compared the baseline characteristics, immediate postoperative outcomes, and recurrence and chronic pain rates between the 2 groups.
RESULTS: There were no significant differences between the mesh and no-mesh groups on immediate postoperative outcomes (length of stay: 18.5 +/- 8.9 days vs. 17.0 +/- 6.0 days, P = 0.139; postoperative complications: 8.2% vs. 6.6%, P = 0.821) and 2-year recurrence rate (0.8% vs. 2.6%, P = 0.194). There was a significant difference in the chronic pain rate (9.0% vs. 1.7%, P = 0.023).
CONCLUSION: Using mesh for inguinal hernia repair in late adolescent male patients increases chronic postoperative inguinal pain.

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PMID
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8019987
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155.

Evaluation of Analgesia Effect after Ultrasound-Guided Laparoscopic Renal Surgery.
You X, Liu W
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Computational & Mathematical Methods in Medicine. 2021:6194806, 2021.
[Journal Article. Randomized Controlled Trial. Retracted Publication]

UI: 34976111
Kidney surgery involves placing the kidney in the iliac fossa of the lower abdomen on the right or left side. Studies have found that most kidney patients experience moderate to severe pain after surgery. The stress response caused by postoperative pain, especially visceral pain, not only aggravates the patient's pain and irritability and aggravates the original complications but may also harm the early recovery of renal function and affect the survival of the kidney. Therefore, adequate postoperative analgesia for renal patients is essential. This paper combines ultrasound-guided laparoscopic technology to improve the postoperative analgesia effect of renal surgery and compares the data with experimental research methods. Through experimental research, it can be seen that the method proposed in this article has a certain effect, and ultrasound-guided laparoscopic technology can be used in follow-up clinical research to improve the analgesic effect of renal surgery.

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Comments
Retraction in (RIN)
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Year of Publication
2021

156.

Type III internal hemipelvectomy for primary bone tumours with and without allograft reconstruction : a comparison of outcomes.
Jamshidi K, Zandrahimi F, Bagherifard A, Mohammadi F, Mirzaei A
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Bone & Joint Journal. 103-B(6):1155-1159, 2021 Jun.
[Journal Article]
UI: 34058885
AIM: There is insufficient evidence to support bony reconstruction of the pubis after a type III internal hemipelvectomy (resection of all or part of the pubis). In this study, we compared surgical complications, postoperative pain, and functional outcome in a series of patients who had undergone a type III internal hemipelvectomy with or without bony reconstruction.
METHODS: In a retrospective cohort study, 32 patients who had undergone a type III hemipelvectomy with or without allograft reconstruction (n = 15 and n = 17, respectively) were reviewed. The mean follow-up was 6.7 years (SD 3.8) for patients in the reconstruction group and 6.1 years (SD 4.0) for patients in the non-reconstruction group. Functional outcome was evaluated using the Musculoskeletal Tumor Society (MSTS) scoring system and the level of postoperative pain with a visual analogue scale (VAS).

RESULTS: The mean MSTS score of the patients was significantly better in patients after reconstruction (26 (SD 1.7) vs 22.7 (SD 2.0); p < 0.001). The mean visual analogue scale score for pain was significantly less in the reconstruction group (2.1 (SD 2) vs 4.2 (SD 2.2); p = 0.016). One infection occurred in each group. Bladder herniation occurred in three patients (17.6%) in the non-reconstruction group but none in the reconstruction group. Five patients (29.4%) in the non-reconstruction group and one (7%) in the reconstruction group had a limp. Graft displacement occurred in two patients in the reconstruction group.
CONCLUSION: We recommend reconstruction of the bony defect after a type III hemipelvectomy: it gives a better functional result, less postoperative pain, and fewer late surgical complications. Cite this article: Bone Joint J 2021;103-B(6):1155-1159.
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Year of Publication
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157.

An Interactive Pain Application (MServ) Improves Postoperative Pain Management.
Gordon-Williams R, Trigo A, Bassett P, Williams A, Cone S, Lees M, Brandner B
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Pain Research & Management. 2021:8898170, 2021.
[Journal Article. Research Support, Non-U.S. Gov't]
UI: 33868524
Background: Most patients have moderate or severe pain after surgery. Opioids are the cornerstone of treating severe pain after surgery but cause problems when continued long after discharge. We investigated the efficacy of multifunction pain management software (MServ) in improving postoperative pain control and reducing opioid prescription at discharge.
Methods: We recruited 234 patients to a prospective cohort study into sequential groups in a nonrandomised manner, one day after major thoracic or urological surgery. Group 1 received standard care (SC, n = 102), group 2 were given a multifunctional device that fed back to the nursing staff alone (DN, n = 66), and group 3 were given the same device that fed back to both the nursing staff and the acute pain team (DNPT, n = 66). Patient-reported pain scores at 24 and 48 hours and patient-reported time in severe pain, medications, and satisfaction were recorded on trial discharge. Findings. Odds of having poor pain control (>1 on 0-4 pain scale) were calculated between standard care (SC) and device groups (DN and DNPT). Patients with a

device were significantly less likely to have poor pain control at 24 hours (OR 0.45, 95% CI 0.25, 0.81) and to report time in severe pain at 48 hours (OR 0.62, 95% CI 0.47-0.80). Patients with a device were three times less likely to be prescribed strong opioids on discharge (OR 0.35, 95% CI 0.13 to 0.95). Interpretation. Using an mHealth device designed for pain management, rather than standard care, reduced the incidence of poor pain control in the postoperative period and reduced opioid prescription on discharge from hospital.

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1
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158.

Ultrasound-Guided Pudendal Nerve Block Combined with Propofol Deep Sedation versus Spinal Anesthesia for Hemorrhoidectomy: A Prospective Randomized Study.
He J, Zhang L, Li DL, He WY, Xiong QM, Zheng XQ, Liao MJ, Wang HB
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Pain Research & Management. 2021:6644262, 2021.
[Journal Article]
UI: 33727997
Background and
Objectives . Several anesthesia techniques were applied to hemorrhoidectomy, but postoperative pain and urinary retention were still two unsolved problems. The aim of this prospective randomized study was to evaluate the effect of ultrasound-guided pudendal nerve block (PNB)

combined with deep sedation compared to spinal anesthesia for hemorrhoidectomy. Methods. One hundred and twenty patients undergoing Milligan-Morgan hemorrhoidectomy were randomized to receive PNB combined with deep sedation using propofol (Group PNB, n = 60) or spinal anesthesia (Group SA, n = 60). Pain intensity was assessed using the visual analogue scale (0: no pain to 10: worst possible pain). The primary outcome was pain scores recorded at rest at 3, 6, 12, 24, 36, and 48 h and on walking at 12, 24, 36, and 48 h postoperatively. Secondary outcomes were analgesic consumption, side effects, and patient satisfaction after surgery. Results. Ultrasound-guided bilateral PNB combined with deep sedation using propofol could successfully be applied to Milligan-Morgan hemorrhoidectomy. Postoperative pain intensity was significantly lower in Group PNB compared to Group SA at rest at 3, 6, 12, 24, 36, and 48 h ($p < 0.001$) and during mobilization at 12, 24, 36, and 48 h ($p < 0.001$) postoperatively. Sufentanil consumption in Group PNB was significantly lower than that in Group SA, during 0-24 h ($p < 0.001$) and during 24-48 h ($p < 0.001$) postoperatively. Urinary retention was significantly lower in Group PNB compared to Group SA (6.9% vs 20%, p=0.034). The patients in Group PNB had higher satisfaction compared to Group SA ($p < 0.001$). Conclusions. Ultrasound-guided PNB combined with propofol sedation is an effective anesthesia technique for Milligan-Morgan hemorrhoidectomy.

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1
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159.

A Retrospective Analysis Demonstrates That a Failure to Document Key Comorbid Diseases in the Anesthesia Preoperative Evaluation Associates With Increased Length of Stay and Mortality.

Hofer IS, Cheng D, Grogan T
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Anesthesia & Analgesia. 133(3):698-706, 2021 09 01.
[Journal Article. Research Support, N.I.H., Extramural]
UI: 33591117
BACKGROUND: The introduction of electronic health records (EHRs) has helped physicians access relevant medical information on their patients. However, the design of EHRs can make it hard for clinicians to easily find, review, and document all of the relevant data, leading to documentation that is not fully reflective of the complete history. We hypothesized that the incidence of undocumented key comorbid diseases (atrial fibrillation [afib], congestive heart failure [CHF], chronic obstructive pulmonary disease [COPD], diabetes, and chronic kidney disease [CKD]) in the anesthesia preoperative evaluation was associated with increased postoperative length of stay (LOS) and mortality.
METHODS: Charts of patients >18 years who received anesthesia in an inpatient facility were reviewed in this retrospective study. For each disease, a precise algorithm was developed to look for key structured data (medications, lab results, structured medical history, etc) in the EHR. Additionally, the checkboxes from the anesthesia preoperative evaluation were queried to determine the presence or absence of the documentation of the disease. Differences in mortality were modeled with logistic regression, and LOS was analyzed using linear regression.
RESULTS: A total of 91,011 cases met inclusion criteria (age 18-89 years; 52% women, 48% men; 70% admitted from home). Agreement between the algorithms and the preoperative note was >84% for all comorbidities other than chronic pain (63.5%). The algorithm-detected disease not documented by the anesthesia team in 34.5% of cases for chronic pain (vs 1.9% of cases where chronic pain was documented but not detected by the algorithm), 4.0% of cases for diabetes (vs 2.1%), 4.3% of cases for CHF (vs 0.7%), 4.3% of cases for COPD (vs 1.1%), 7.7% of cases for afib (vs 0.3%), and 10.8% of cases for CKD (vs 1.7%). To assess the association of missed documentation with outcomes, we compared patients where the disease was detected by the algorithm but not documented (A+/P-) with patients where the disease was documented (A+/P+). For all diseases except chronic pain, the missed documentation was associated with a longer LOS. For mortality, the discrepancy was associated with increased mortality for afib, while the differences were insignificant for the other diseases. For each missed disease, the odds of mortality increased 1.52 (95% confidence interval [CI], 1.42-1.63) and the LOS increased by approximately 11%, geometric mean ratio of 1.11 (95% CI, 1.10-1.12).
CONCLUSIONS: Anesthesia preoperative evaluations not infrequently fail to document disease for which there is evidence of disease in the EHR data. This missed documentation is associated with an increased LOS and mortality in perioperative patients.

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Year of Publication
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160.

Impact of prescription drug monitoring program mandate on postoperative opioid prescriptions in children.
Theodorou CM, Jackson JE, Rajasekar G, Nuno M, Yamashiro KJ, Farmer DL, Hirose S, Brown EG
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Pediatric Surgery International. 37(5):659-665, 2021 May.
[Journal Article]
UI: 33433663
PURPOSE: Prescription drug monitoring programs (PDMPs) have been established to combat the opioid epidemic, but there is no data on their efficacy in children. We hypothesized that a statewide PDMP mandate would be associated with fewer opioid prescriptions in pediatric surgical patients.
METHODS: Patients < 18 undergoing inguinal hernia repair, orchiopexy, orchiectomy, appendectomy, or cholecystectomy at a tertiary children's hospital were included. The primary outcome, discharge opioid prescription, was compared for 10 months pre-PDMP (n = 158) to 10 months post-PDMP (n = 228). Interrupted time series analysis was performed to determine the effect of the PDMP on opioid prescribing.
RESULTS: Over the 20-month study period, there was an overall decrease in the rate of opioid prescriptions per month (- 3.6% change, p < 0.001). On interrupted time series analysis, PDMP implementation was not associated with a significant decrease in the monthly rate of opioid prescriptions (1.27% change post-PDMP, p = 0.4). However, PDMP implementation was associated with a reduction in opioid prescriptions of greater than 5 days' supply (- 2.7% per month, p = 0.03).
CONCLUSION: Opioid prescriptions declined in pediatric surgical patients over the study time period. State-wide PDMP implementation was associated with a reduction in postoperative opioid prescriptions of more than 5 days' duration.
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161.

UK practice for penile prosthesis surgery: baseline analysis of the British Association of Urological Surgeons (BAUS) Penile Prosthesis Audit.
Muneer A, Fowler S, Ralph DJ, Summerton DJ, Rees RW
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
BJU International. 127(3):326-331, 2021 03.
[Journal Article]
UI: 32869902
OBJECTIVES: To undertake a prospective multicentre national audit of penile prosthesis practice in the UK over a 3-year period.
PATIENTS AND METHODS: Data were submitted by urological surgeons as part of the British Association of Urological Surgeons Penile Prosthesis National Audit. Patients receiving a penile prosthesis (inflatable or malleable) were included as part of a prospective registry over a 3-year period. Data were validated and then analysed using a software package (Tableau).
RESULTS: A total of 1071 penile prosthesis procedures were included from 22 centres. The three commonest aetiological factors for erectile dysfunction were diabetes, prostate surgery and Peyronie's disease. Of the recorded data, inflatable penile prostheses were the commonest devices implanted, with 665 devices used (62.1%), whereas malleable prostheses accounted for 14.2% of the implants. Recorded intra-operative complications included urethral injury (0.7%, n = 7), corporal perforation (1.1%, n = 12) and cross-over (0.6%, n = 6). Known postoperative complications were recorded in 9.8% of patients (74/752), with the two most frequently reported being postoperative penile pain (n = 11) and scrotal haematoma (n = 14).
CONCLUSION: This baseline analysis is the largest prospective registry of penile prostheses procedures to date. The data show that, over the 3-year collection period in the UK, there are now fewer surgeons performing the procedure, together with a reduction in the number of centres. Peri-operative complications were infrequent, and the rate of implant abortion (e.g. as a result of urethral injury) was very low. Further follow-up data will be required to publish long-term outcomes and patient satisfaction.

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Status
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Clinical Trial Number
BAUS Section of Andrology, Genitourethral Surgery
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Year of Publication
2021

162.

21st Annual Fall Scientific Meeting of SMSNA.
Anonymous
Embase
Journal of Sexual Medicine. Conference: 21st Annual Fall Scientific Meeting of Sexual Medicine Society of North America, SMSNA 2020. Virtual. 18(Supplement 1) (no pagination), 2021. Date of Publication: March 2021.
[Conference Review]
AN: 640725823
The proceedings contain 163 papers. The topics discussed include: new cognitive behavioral treatment for delayed ejaculation using a masturbation aid device and mobile app: a case study; characteristics of men who use direct to consumer men's health telemedicine services in an online population; how do the interdisciplinary professional relationships formed in the creation of a men's health program influence members' work?; frequency of depression and anxiety in young men with erectile dysfunction; should men presenting with depression be screened for low testosterone?; prepubertal masturbation techniques inflicting penile trauma and erectile dysfunction in healthy adult males: a call for prevention and early education; long-term success with diminished opioid prescribing after men's health urologic procedures using standardized postoperative opioid prescribing guidelines: an interrupted time-series analysis; and how sexual orientation effects sexual health discussions and care with providers: a study using the national survey for family growth 2011-2017.
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163.

Randomized Controlled Trial of Scrotal versus Inguinal Orchidopexy on Postoperative Pain.
McGrath M., Kim J., Farrokhyar F., Braga L.H.
Embase
Journal of Urology. 205(3) (pp 895-901), 2021. Date of Publication: 01 Mar 2021.
[Article]
AN: 2022810778
Introduction:To compare the impact of orchidopexy approach (scrotal vs inguinal) on analgesic requirements, postoperative pain scores and complication rates.Materials and Methods:A superiority randomized controlled trial including boys 10 to 95 months of age at surgery, diagnosed with palpable undescended testis, was conducted. Patients with nonpalpable or bilateral undescended testis, previous inguinal surgery on the ipsilateral side and concurrent procedures were excluded. Block randomization with 1:1 allocation ratio and a standardized

anesthesia protocol were employed. The primary outcome was postoperative pain and analgesic use in-hospital and at home using the validated pain scales FLACC (Face, Legs, Activity, Cry, and Consolability Behavioural Scale), CHEOPS (Children's Hospital of Eastern Ontario Pain Scale), PPPM (Parents Postoperative Pain Measure) and TPPPS (Toddler-Preschooler Postoperative Pain Scale). Secondary outcomes included operative time, conversion and success rates, and complications. An intention to treat protocol was followed.
Result(s):We enrolled 173 patients, and 12 withdrew. Of the 161 patients who completed followup, 80 had scrotal orchidopexy and 81 inguinal orchidopexy. In-hospital use of ibuprofen (p=0.02) and acetaminophen (p <0.01), as well as FLACC (p <0.01) and CHEOPS (p=0.04) pain scores were slightly higher in patients who underwent orchidopexy. No difference in mean operative time and median at-home administration of analgesic was noted. The conversion rate was 24% (19/80). Of these, 13 (68%) were canalicular testes. The overall complication rate was 4% (6/161): 1 testicular atrophy, 3 re-ascents and 2 wound infections. Of these, 5 underwent scrotal orchidopexy and 1 had inguinal orchidopexy (wound infection).
Conclusion(s):Even though in-hospital mean postoperative pain scores and analgesic consumption were slightly lower for scrotal orchidopexy cases, the pain levels were mild across all scales. Median at-home analgesic use and pain scores were similar for both groups, as well as operative time and complication rates. Scrotal orchidopexy is an effective alternative to inguinal orchidopexy for low-lying undescended testis, as 68% of cases that needed conversion were canalicular testes.

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33021443 [https://www.ncbi.nlm.nih.gov/pubmed/?term=33021443]
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Publisher
Wolters Kluwer Health
Year of Publication
2021

164.

Circumcision devices versus standard surgical techniques in adolescent and adult male circumcisions.
Hohlfeld A., Ebrahim S., Shaik M.Z., Kredo T.
Embase
Cochrane Database of Systematic Reviews. 2021(3) (no pagination), 2021. Article Number: CD012250. Date of Publication: 31 Mar 2021.
[Review]
AN: 634634406

Background: Medical circumcisions are among the most common surgical procedures performed in males. The usual indications are phimosis (inability to completely retract the foreskin and expose the glans due to a congenital or acquired constriction of the prepuce), paraphimosis (when the foreskin is not pulled back over the glans after retraction resulting in a tight constricting band which causes swelling of the distal penis and acute discomfort), balanoposthitis (erythema and edema of the prepuce and glans) and balanitis (inflammation is confined to the glans; the foreskin is usually non-retractile). Circumcision devices have been developed to shorten the operative time, simplify techniques, and improve safety and cosmetic outcomes. The devices generally aim to crush the foreskin while simultaneously creating hemostasis, the foreskin is then excised or allowed to slough off. Their use is supposedly safer and easier to replicate than the standard dissection techniques. There are at least 20 devices for male circumcision on the market, yet their effectiveness has not been reviewed to date.
Objective(s): To assess the effects of device-based circumcisions compared with standard surgical techniques in adolescent and adult males (10 years old and above).
Search Method(s): We performed a comprehensive search with no restrictions to the language of publication or publication status. We searched the Cochrane Library, MEDLINE (PubMed), Embase, Web of Science, trials registries, grey literature sources and conference proceedings up to 16 April 2020.
Selection Criteria: We included randomized controlled trials of device-based circumcisions (crush or ligature circumcision devices) compared to standard surgical dissection-based circumcision conducted by health professionals in a medical setting.
Data Collection and Analysis: At least two review authors independently assessed study eligibility and extracted data from the included studies. We classified adverse events into serious, moderate or mild. We reported study results as risk ratios (RR) or mean differences (MD) using 95% confidence intervals (CI) and a random-effects model. We used the GRADE approach to evaluate the overall certainty of the evidence for each outcome.
Main Result(s): Eighteen trials met the inclusion criteria. Trials were conducted in China, South Africa, Kenya and Zambia, Mozambique, Rwanda, Uganda and Zimbabwe. Primary outcomes. Serious adverse events: there were no serious adverse events in either treatment arm (11 trials, 3472 participants). Moderate adverse events: there may be a slight increase in moderate adverse events when devices are used compared to standard surgical techniques (RR 1.31, 95% CI 0.55 to 3.10; I2= 68%; 10 trials, 3370 participants; low-certainty evidence); this corresponds to 8 more (ranging from 15 fewer to 84 more) moderate adverse events per 1000 participants. We downgraded the certainty of the evidence for study limitations and imprecision. Secondary outcomes. Mild adverse events: we are uncertain about the difference in mild adverse events between groups when devices are used compared to standard surgical techniques (RR 1.09, 95% CI 0.44 to 2.72; I2 = 91%; 10 trials, 3370 participants; very low-certainty evidence). We downgraded the certainty of the evidence for study limitations, imprecision and unexplained inconsistency. Operative time: operative time is probably about 17 minutes shorter when using a device rather than standard surgical techniques, which constitutes a clinically meaningful decrease in a procedure (MD -17.26 minutes, 95% CI -19.96 to -14.57; I2 = 99%; 14 trials, 4812 participants; moderate-certainty evidence). We downgraded the certainty of the evidence for serious study limitations. The standard surgical technique generally takes about 24 minutes. There may be less postoperative pain during the first 24 hours when circumcision devices are used compared to standard surgical techniques (measured using a visual analog scale [VAS]; MD 1.30 cm lower, 95% CI 2.37 lower to 0.22 lower; I2 = 99%; 9 trials, 3022 participants; low-certainty evidence). We downgraded the certainty of the evidence for study limitations and unexplained heterogeneity. There may be little or no difference in postoperative pain experienced during the first seven days when compared with standard surgical techniques (measured using a VAS; MD 0.11 cm higher, 95% CI 0.89 lower to 1.11 higher; I2 = 94%; 4 trials, 1430 participants; low-certainty evidence). We downgraded the certainty of the evidence for study limitations and unexplained inconsistency. A higher score on the VAS indicates greater pain. Participants may slightly prefer circumcision devices compared to standard surgical techniques (RR 1.19, 95% CI 1.04 to 1.37; I2 = 97%; 15 trials, 4501 participants; low-certainty evidence). We downgraded the certainty of the evidence for study limitations and unexplained inconsistency. We recorded satisfaction as a dichotomous outcome. Higher rates reflected greater satisfaction. Authors'

conclusions: We found that there were no serious adverse events reported when using a circumcision device compared to standard surgical techniques, but they may slightly increase moderate adverse effects, and it is unclear whether there is a difference in mild adverse effects. Use of circumcision devices probably reduces the time of the procedure by about 17 minutes, a clinically meaningful time saving. For patients, use of the circumcision device may result in lower pain scores during the first 24 hours and patients may be slightly more satisfied with it compared with standard surgical techniques. Clinicians, patients and policymakers can use these results in conjunction with their own contextual factors to inform the approach that best suits their healthcare settings. High-quality trials evaluating this intervention are needed to provide further certainty regarding the rates of adverse effects and postoperative pain of using devices compared to standard approaches.

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33786810 [https://www.ncbi.nlm.nih.gov/pubmed/?term=33786810]
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In-Process
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Publisher
John Wiley and Sons Ltd
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165.

Comparison of the postoperative analgesic effectiveness of US-guided caudal block and US-guided pudendal nerve block in circumcision.
Ozen V.
Embase
International journal of clinical practice. (pp e14366), 2021. Date of Publication: 16 May 2021.
[Article]
AN: 635106259
AIM: To compare the postoperative analgesic efficacy and postoperative complications of the pudendal nerve block (PNB) and caudal block (CB) with ultrasound (US). STUDY DESIGN: A prospective observational study.
METHOD(S): This study was included male patients aged between 4-12 years in the ASA I-II group and scheduled for circumcision. A low-dose CB or US-guided PNB was administered under general anesthesia before the operation. Postoperative pain was evaluated using the Children's Hospital Eastern Ontario Pain Scale (CHEOPS) and Faces Pain Scale-Revised. Postoperative analgesic need was also noted.
RESULT(S): The study was completed with a total of 100 patients consisting of 50 patients who received a caudal block and 50 who received a PNB. Intraoperative block failure was not seen in any patient. The mean CHEOPS score ($p<0.001$), and the sixth ($p= 0.003$) and twelfth hours ($p<0.001$) CHEOPS scores were found to be statistically significantly higher in the CB group. There were no postoperative side effects in the PNB group with a statistically significant difference compared to the caudal block group ($p= 0.027$).
CONCLUSION(S): This first prospective study in the literature shows that US-guided PNB provided a more pronounced and longer analgesic effect and resulted in less requirement for postoperative analgesics than US-guided CB.

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33993633 [https://www.ncbi.nlm.nih.gov/pubmed/?term=33993633]
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Publisher
NLM (Medline)
Year of Publication
2021

166.

Healthcare Utilisation Associated with Adherence to Antibiotics for Abdominal Surgeries in Japan: Cross-Sectional Analysis of Administrative Database.
Imai S., Kiyomi A., Sugiura M., Fushimi K.
Embase
International journal for quality in health care : journal of the International Society for Quality in Health Care. (no pagination), 2021. Date of Publication: 22 Jan 2021.
[Article]
AN: 634089565
BACKGROUND: Since patients receiving surgery may experience surgical site infections, therapeutic guidelines for reducing hospitalisation time and cost include appropriate antibiotic use. However, the association between adherence to therapeutic guidelines and healthcare utilisation is currently unclear. This study aimed to confirm the positive association between the adherence to guidelines of antibiotic therapy and reduction in length of stay and cost of hospitalisation, especially considering the high infection rates in abdominal surgery.
METHOD(S): This cross-sectional study used administrative data (diagnosis procedure combination data) collected using the case-mix system implemented in acute-care hospitals in Japan. We assessed the length of hospital stay and cost of hospitalisation for patients who received prophylactic antibiotic for abdominal surgeries consistent with therapeutic guidelines. The data of patients aged 15 years or older who received appendectomy, laparoscopic cholecystectomy, or inguinal hernia repair were extracted. The appropriateness of antibiotic prophylaxis was evaluated in terms of the Japanese guidelines for antibiotic selection and treatment duration. To assess the mean difference in antibiotic costs and length of stay, we performed the propensity score matching by confounding factors. Furthermore, we assessed the progress in healthcare utilisation of this therapy over a decade.
RESULT(S): Of the 302,233 patients who received single general surgery from April 2014 to March 2016, 198,885 were eligible for analysis after applying the exclusion criteria (143,975 in the adherence, 54,910 in the non-adherence group). Each group comprised 48,439 patients after propensity score matching. Inappropriate antibiotic selection and duration were observed in 9,294 (9.8%) and 687 (0.7%) of inguinal hernia repairs, 6,431 (25.3%) and 311 (1.2%) of appendectomies, and 38,134 (48.5%) and 391 (0.5%) of laparoscopic cholecystectomy cases, respectively. After propensity score matching by operation type, average hospitalisation length (6.5 [SD 3.8] and 7.3 [SD 4.8] days) and costs (536,000 [SD 167,000] JPY and 573,000 [SD 213,000] JPY) differed significantly between adherence and non-adherence groups.
CONCLUSION(S): The results revealed unnecessary healthcare utilisation was associated with failure to adhere to therapeutic guidelines for prophylactic antibiotic therapy in elective general surgeries. We concluded that the progress of reduction in length of hospitalisation over the

decade was successful. Notably, adherence to treatment duration was better than 10 years ago. In this decade, administrators in hospitals have attempted to reduce the duration of hospitalisation by developing various clinical pathways for surgical procedures and quality indicators. However, 15,877 patients (8.7%) were prescribed oral antibiotics the day after surgery. These observations should be evaluated further.

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Article-in-Press
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Publisher
NLM (Medline)
Year of Publication
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167.

Enhancing recovery after minimal invasive surgery of the pectus. A review of the literature.
Trongthiang N., Wildemeersch D., Mertens P., Hendriks J.M.H.
Embase
Acta Anaesthesiologica Belgica. 72 (pp 141-150), 2021. Date of Publication: December 2021.
[Article]
AN: 2021245516
Background: Pectus excavatum (PE) and pectus carinatum (PC) are the most frequent chest wall deformities presenting for a minimal invasive repair of pectus (MIRP). Enhanced recovery protocols (ERP) could improve postoperative recovery and reduce complications, however there is little uniformity in the management of patients undergoing MIRP. The aim of this review is to present an overview of the different ERPs. Our primary outcome is the effect of these ERPs on length of hospital stay (LOS), secondary outcomes include, but are not limited to, the effect on pain scores, urinary catheter requirement and duration, post-operative opioid usage and its side effects.
Method(s): Data were collected through a Pubmed/ MEDLINE literature search. The main inclusion criterium for each study was the implementation of a clearly defined ERP consisting of a multimodal approach in a population requiring MIRP.
Result(s): In total six articles were included, each of them containing a cohort study population before and after implementing an ERP. All control groups were historical cohorts with data extracted from medical files, prior to implementation of an ERP. Thus, all articles were retrospective comparative cohort studies, with a level IV of evidence. Most studies suggest that the implementation of an ERP could reduce LOS and reduce the incidence of urinary catheter requirement and duration, without an increase in complications. A reduction in opioid usage and the incidence of its side effects and a reduction in pain scores could not be uniformly achieved.
Conclusion(s): There is promising evidence that implementing an ERP may improve short-term outcome in a young population undergoing minimal invasive repair of pectus. Large prospective multicentred trials are needed, using proper controls and implementing multiple aspects of the ERP (pre-, peri- and postoperatively).

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Publisher
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Year of Publication
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168.

How I Do It: The pudendal nerve block for pediatric ambulatory urologic surgery.
Okoro C., Cannon S., Low D., Lendvay T.S.
Embase
The Canadian journal of urology. 28(2) (pp 10648-10651), 2021. Date of Publication: 01 Apr 2021.
[Article]
AN: 634842970
Regional analgesia is an important adjunct for perioperative pain management in the setting of pediatric penile surgeries. Caudal epidural analgesia (CEA) is the most common analgesic technique performed, but it has limitations and associated morbidity. The pudendal nerve block (PNB) is an effective alternative to CEA with a lower risk profile; in prior examination of the approach, PNB has been demonstrated to have similar postoperative pain control outcomes. We describe our technique and highlight observations made as we have transitioned from CEA to PNB for many patients.
PMID
33872567 [https://www.ncbi.nlm.nih.gov/pubmed/?term=33872567]
Institution
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Publisher
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169.

Lumboperitoneal Shunts - Patient Selection, Technique, and Complication Avoidance: An Experience of 426 Cases.
Sinha M., Bajaj J., Kumar A., Hedaoo K., Sharma S., Konchada K., Ratre S., Parihar V., Swamy N., Yadav Y.
Embase

Neurology India. 69(8 Supplement 2) (pp S469-S475), 2021. Date of Publication: November-December 2021.
[Review]
AN: 636771152
Background: Lumboperitoneal shunt is a known procedure for communicating hydrocephalus. Being an extracranial procedure, it can also be utilized in normal-sized ventricles.
Objective(s): To report our experience of lumboperitoneal shunt done with a minimal follow-up of 12 months with an emphasis on patient selection, technique, and complication avoidance.
Method(s): This was a retrospective analysis of patients who underwent LP shunt during October 2014-October 2019 at the authors' institute. Inclusion criteria were patients with communicating hydrocephalus due to tubercular meningitis, normal pressure hydrocephalus, idiopathic intracranial hypertension, and postoperative refractory cerebrospinal fluid leaks. Data were collected for demographics, Glasgow coma scale and Glasgow outcome scale, vision, gait, memory, urinary incontinence, failed attempts, and complications.
Result(s): A total of 426 patients underwent the LP shunt procedure. The commonest indication was tubercular meningitis followed by idiopathic intracranial hypertension and normal pressure hydrocephalus. Age ranged from 16 to 72 years. There were 255 male and 171 female patients. The mean follow-up was 41 +/- 8 months. Overall, 301 patients (70.6%) had neurological improvement. Shunt-related complications occurred in 112 (26.29%) patients, of which shunt block was the commonest. Other complications were infection in 17 (3.9%) patients and extrusion in four (0.9%) patients. Transient postural headache was seen in 46 (10.7%) patients, which gradually improved.
Conclusion(s): Lumboperitoneal shunt was found to be a safe and effective treatment in appropriately selected communicating hydrocephalus patients. A meticulous technique reduces the complication rate.

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35103006 [https://www.ncbi.nlm.nih.gov/pubmed/?term=35103006]
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Publisher
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2021

170.

Hyponatremia among Postoperative Children Administered with Hypotonic Fluids in a Tertiary Care Hospital: A Descriptive Cross-sectional Study.
Shrestha A.L., Jehangir S., Thomas R.J.
Embase
Journal of the Nepal Medical Association. 59(243) (pp 1131-1135), 2021. Date of Publication: November 2021.
[Article]
AN: 2015294368
Introduction: Hypotonic solutions in postoperative children may cause hyponatremia. Considering humidity and temperatures in India, this study was conducted to find out the prevalence of

hyponatremia among postoperative children who were administered with hypotonic solutions in a tertiary care hospital.
Method(s): A descriptive cross-sectional study was conducted at a tertiary care hospital. Ethical approval was taken from the institutional review board of Christian Medical College, Vellore, India (Reference number: 9177). Children aged less than 15 years undergoing elective surgery, requiring fasting for more than 12 hours post-operatively with normal preoperative electrolytes and renal functions were included. Hypotonic fluids were administered following existent protocol. Electrolytes were repeated immediate postoperatively and at 12-24 hours. Data was entered into and analyzed using the Statistical Package for the Social Sciences version 18.0. Point estimate at 90% Confidence Interval was calculated along with frequency and proportion for binary data.
Result(s): Among 109 participants, hyponatremia in the postoperative period was seen in 53 (48.6%) (40.7-56.5 at 90% Confidence Interval) children. Hyponatremia was found in the immediate postoperative period in 10 (9.2%) children. All received Ringer Lactate as maintenance intra-operatively and none were severe enough to need correction. In the 12-24-hour sample, 43 (39.41%) had hyponatremia and none in severe category.
Conclusion(s): Asymptomatic hyponatremia was noted in normal children planned for elective surgery. Among children managed with the existing institutional perioperative (hypotonic) fluid management protocol, subclinical postoperative hyponatremia within 12-24 hours of surgery was noted in a significant proportion, which was more in the hot and warm months in tropics. There are grounds for switching to isotonic fluids for perioperative management.

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35199746 [https://www.ncbi.nlm.nih.gov/pubmed/?term=35199746]
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Publisher
Nepal Medical Association
Year of Publication
2021

171.

Fluid Balance of the Second Day Following Operation is Associated with Early Mortality and Multiorgan Failure After Pericardiectomy for Constrictive Pericarditis.
Huang J.-B., Wen Z.-K., Lu W.-J., Lu C.-C., Tang X.-M., Li X.-W., Deng X.
Embase
Heart Surgery Forum. 24(4) (pp E700-E708), 2021. Date of Publication: 21 Jul 2021.
[Article]
AN: 2020515893
Background: The operative mortality of pericardiectomy still is high. This retrospective study was conducted to determine the risk factors of early mortality and multiorgan failure.
Method(s): We retrospectively analyzed patients undergoing pericardiectomy from January 2009 to June 2020 at our hospital. Pericardiectomy was performed via sternotomy. Histopathologic studies of pericardium tissue from every patient were done. All survivors were monitored to the end date of the study.
Result(s): Ninety-two consecutive patients undergoing pericardiectomy for constrictive pericarditis were included in the study. Postoperatively, central venous pressure significantly decreased, and left ventricular end diastolic dimension and left ventricular ejection fractions significantly

improved. The overall mortality rate was 5.4%. The common postoperative complications include acute renal injury (27.2%), and multiorgan failure (8.7%). Analyses of risk factors showed that fluid balance of the second day following operation is associated with early mortality and multiorgan failure. In this series from Guangxi, China, characteristic histopathologic features of tuberculosis (60/92, 65.2%) of pericardium were the most common histopathologic findings, and 32 patients (32/92, 34.8%) had the histopathologic findings of chronic nonspecific inflammatory changes. The functional status of the patients improved after pericardiectomy; 6 months later postoperatively 85 survivors were in class I (85/87, 97.7%) and two were in class II (2/87, 2.3%). Conclusion(s): Tuberculosis is the most common cause of constrictive pericarditis in Guangxi, China. Fluid balance of the second day following operation is associated with early mortality and multiorgan failure after pericardiectomy for constrictive pericarditis in our study.

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34473024 [https://www.ncbi.nlm.nih.gov/pubmed/?term=34473024]
Status
Embase
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Publisher
Forum Multimedia Publishing LLC
Year of Publication
2021

172.

Comparison between caudal epidural and ultrasound-guided ilioinguinal-iliohypogastric block with bupivacaine and dexmedetomidine for postoperative analgesia following pediatric inguinal hernia surgeries: A prospective randomized, double-blind study.
Varsha R., Desai S.N., Mudakanagoudar M.S., Annigeri V.M.
Embase
Journal of Anaesthesiology Clinical Pharmacology. 37(3) (pp 389-394), 2021. Date of Publication: July-September 2021.
[Article]
AN: 636365478
Background and Aims: Caudal epidural and ultrasound-guided ilioinguinal, iliohypogastric nerve (IL/IH) blocks are commonly used regional anesthesia techniques for postoperative analgesia in pediatric inguinal surgeries. Dexmedetomidine as an adjuvant has been proven to prolong the duration of both neuraxial and peripheral nerve blocks. We compared the duration of analgesia provided by local anesthetic (LA) and dexmedetomidine for caudal and IL/IH block for pediatric inguinal surgeries.
Material(s) and Method(s): Forty-six children undergoing inguinal hernia repair were selected for this randomized double-blind study. After general anesthesia, children received either 0.75 mL.kg -1 of 0.25% bupivacaine with 1 mcg.kg -1 of dexmedetomidine in caudal epidural or 0.25 mL.kg -1 of 0.25% bupivacaine with 1 mcg.kg -1 of dexmedetomidine in IL/IH block. The pain was assessed up to 24 h postoperatively using face, legs, activity, cry, consolability (FLACC) score. For FLACC =4, rescue analgesia was provided using 1 microg/kg of intravenous fentanyl, up to 2 h postoperatively and 10 mg/kg of oral ibuprofen between 2 and 24 postoperative hours. The time for first rescue analgesia was taken as the duration of analgesia.
Result(s): There were no significant differences in the pain scores or analgesic utilization between the groups. The duration of analgesia of caudal and IL/IH blocks was similar (720.3 +/- 430.1 min

and 808.4 +/- 453.1 min, respectively). The time taken for the performance of block was significantly higher for caudal compared to IL/IH (547 +/- 93 vs. 317 +/- 179 s; P < 0.001). Conclusion(s): Both caudal epidural and USG-IL/IH block with dexmedetomidine as additive provide the comparable duration of postoperative analgesia with no significant side effects.

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Publisher
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Year of Publication
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173.

To evaluate the effect of elective ilio-inguinal neurectomy during open inguinal hernia repair.
Singh S., Banga N., Goyal A., Nikhil
Embase
Journal of Cardiovascular Disease Research. 12(6) (pp 607-612), 2021. Date of Publication: 2021.
[Article]
AN: 2017636042
AIMS & OBJECTIVES: To evaluate the effect of elective ilioinguinalneurectomy during open inguinal hernia repair. MATERIALS & METHODS: 60 patients of inguinal hernia were selected. Elective ilioinguinalneurectomy was performed on 30 patients-study group (Group A), while nerve was preserved in 30 patients - control group (Group B). These patients were followed up at 2 weeks, 1 month and 3 months after discharge postoperatively. Patients in both groups were also evaluated for any pain and for the presence of any numbness in the region. RESULT(S):Ilioinguinalneurectomy is associated with a significantly lower incidence of postoperative neuralgia with pain severity is much less as compared to routine nerve preservation.
CONCLUSION(S):There is trend towards increased incidence of subjective numbness in patients undergoing elective neurectomyupto 2 weeks postoperative, but there is no significant increase afterwards.

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174.

A Comparative Study Of Caudal Bupivacaine And Bupivacaine-Midazolam Mixture For Post-Operative Analgesia In Children Undergoing Genitourinary Surgery.
Khurana D.S., Senger V.K.S., Gajbhiye V., Gajbhiye S.
Embase
European Journal of Molecular and Clinical Medicine. 8(4) (pp 1734-1743), 2021. Date of Publication: June 2021.
[Article]
AN: 2016608729
Introduction: Adequate pain control remains a major challenge after ambulatory surgery. Midazolam as adjunct to local anaesthetics in caudal epidural analgesia has been found effective with minimal adverse effects.
Objective(s): The study was carried out to evaluate the analgesic efficacy of caudal bupivacaine and midazolam in children undergoing genitourinary surgeryfor post operative analgesia and to study the side effects and complications of bupivacaine and midazolam. Subjects and methods: Sixty children, aged2-12 were randomly selected from routine cases of pediatric genitourinary surgery in NSCB Medical college and Hospital, Jabalpur.Group B receive 0.25% bupivacaine 0.5ml/kg [n=30] and group BM receive combination of 0.25% bupivacaine 0.5ml/kg with 50 microgm/kg midazolam[n=30].Throughout the study period heart rate,arterial BP, respiratory rate were monitored. Postoperative pain was assessed by MODIFIED TODDLER PRESCHOOLER POST OPERATIVE PAIN SCALE [TPPPS].Rescue analgesia was given when pain score was 4 or more than 4. Sedation was evaluated by four point sedation score.
Result(s): Lowest pain score were observed in BM group. The mean duration of postoperative analgesia in group B was 7.6+1.5hrs and in group BM was 10.43+0.95 hrs' which was statistically significant[p<0.05]. There was no significant changes in HR,BP and respiratory rate in both groups. The incidence of nausea and vomiting were equal in both groups. No respiratory depression,motor paralysis or urinary retention in both groups during the period of study.
Conclusion- Caudal administration of bupivacaine , midazolam mixture prolongs postoperative analgesia compare to bupivacaine alone without causing any adverse effects and complications.

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Publisher
EJMCM, International House
Year of Publication
2021

175.

Comparison of interventions and outcomes of enhanced recovery after surgery: a systematic review and meta-analysis of 2456 adolescent idiopathic scoliosis cases.
Koucheki R., Koyle M., Ibrahim G.M., Nallet J., Lebel D.E.
Embase
European Spine Journal. 30(12) (pp 3457-3472), 2021. Date of Publication: December 2021.
[Review]

AN: 2013695663
Purpose: The objective of this meta-analysis and systematic review is to compare the methodology and evaluate the efficacy of Enhanced recovery after Spine Surgery (ERAS) for adolescent idiopathic scoliosis (AIS) and to compare the outcomes with traditional discharge (TD) pathways.
Method(s): Using major databases, a systematic search was performed. Studies comparing the implementation of ERAS or ERAS-like and TD pathways in patients with AIS were identified. Data regarding methodology and outcomes were collected and analyzed.
Result(s): Fourteen studies (n = 2456) were included, comprising 1081 TD and 1375 ERAS or ERAS-like patients. Average age of patients was 14.6 +/- 0.4 years. Surgical duration was on average 35.6 min shorter for the ERAS group compared to TD cohort ([2.8, 68.3], p = 0.03), and blood loss was 112.3 milliliters less ([102.4, 122.2], p < 0.00001). ERAS group reached first ambulation 29.6 h earlier ([11.2, 48.0], p-0.002), patient-controlled-analgesia (PCA) discontinuation 0.53 day earlier ([0.4, 0.6], p < 0.00001), urinary catheter discontinuation 0.5 day earlier ([0.4, 0.6], p < 0.00001), and length-of-stay (LOS) was 1.6 days shorter ([1.4, 1.8], p < 0.00001). Rates of complications and 30-day-readmission-to-hospital were similar between both groups. Pain scores were significantly lower for ERAS group on days 0 through 2 post-operatively.
Conclusion(s): Use of ERAS after AIS is safe and effective, decreasing surgical duration and blood loss. ERAS methodology effectively focused on reducing time to first ambulation, PCA discontinuation, and urinary catheter removal. Outcomes showed significantly decreased LOS without a significant increase in complications. There should be efforts to incorporate ERAS in AIS surgery. Further studies are necessary to assess patient satisfaction. Level of Evidence III: Meta-analysis of Level 3 studies.

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Publisher
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176.

Parental Assessment of Pain Control Following Pediatric Circumcision: Do Opioids Make a Difference?.
Adler A.C., Chandrakantan A., Dang T.V., Lee A.D., Austin P.F.
Embase
Urology. 154 (pp 263-267), 2021. Date of Publication: August 2021.
[Article]

AN: 2010786575
Objective: To determine whether a postoperative prescription for opioids affects parental assessment of pain control following pediatric circumcision.
Method(s): This postoperative survey assessed the parental assessment of pain control in 199 patients, ages<18 years undergoing circumcision. This study was conducted at a quaternary care children's hospital in Houston, Texas from December 2018 to January 2020. Postoperative pain regimens included acetaminophen and ibuprofen or combination hydrocodone/acetaminophen in addition to ibuprofen for postoperative analgesia based on the surgical preference. The primary study outcome was identification of the proportion of parents rating their child's analgesia following pediatric circumcision as poor or inadequate based on the postoperative analgesic regimen.
Result(s): Of the 502 surveys sent, the response rate was 40% (199/502) of those who received the survey email, and 64% (199/308) for those who opened the email. Between the opioid and nonopioid groups, there was no difference in, race/ethnicity (Caucasian; 28% vs 37%; P = .43) or insurance status (insured; 51% vs 45%; P = .44). The proportion of parents who rated their child's pain as poor or inadequately controlled following circumcision was relatively rare:5.5% and 1.1% in the nonopioid and opioid groups, respectively. Parents rating their child's pain as excellent with regards to pain control following circumcision were 61% and 53% in the nonopioids and opioid groups, respectively.
Conclusion(s): The results of this study indicate that nonopioid analgesic regimens following pediatric circumcision were not associated with decreased parental satisfaction or an increasing assessment of poor or inadequately controlled pain. Limiting opioid exposure following pediatric circumcision is feasible and does not result in worse parental satisfaction with the analgesic plan.

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Publisher
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177.

Transposition and fixation of lower pole crossing vessel in children with ureteropelvic junction obstruction: A STROBE-compliant study.
Sizonov V.V., Shidaev A.H.-A., Mayr J.M., Kogan M.I., Kagantsov I.M., Rostovskaya V.V.
Embase
Medicine (United States). 100(51) (no pagination), 2021. Article Number: e28235. Date of Publication: 23 Dec 2021.
[Article]

AN: 2016354997
Chapman and Hellstrom techniques are typically employed to transpose renal lower pole crossing vessels (LPCVs). Both procedures have certain limitations. We investigated the midterm outcomes in pediatric patients in whom LPCV-induced ureteropelvic junction obstruction was treated with either dismembered Anderson-Hynes pyeloplasty or upward transposition coupled with a new technique to fix the LPCV. We retrospectively compared Anderson-Hynes pyeloplasty to the new technique in terms of outcome. LPCV transposition was considered feasible in patients in whom the diuretic loading test revealed a decrease in the pelvic volume after correction of vascular compression as well as absence of structural changes in the ureteropelvic junction (UPJ) and hemodynamic compromise of the lower renal pole. The fascial flap was passed below the LPCV to form a "hammock". The free edge of the flap was sutured to its base. Group 1 consisted of 102 (69.9%) patients (median age: 7.9 years) undergoing dismembered Anderson-Hynes pyeloplasty, while group 2 included 44 (30.1%) patients (median age: 8.4 years) treated with upward transposition and the new technique to fix the LPCV. No intra-operative complications or conversions occurred in either group. Redo-pyeloplasty was performed in 3 (2.9%) children of group 1 and 1 (2.3%) child of group 2. Renal ultrasonography conducted 12 months after surgery revealed similar anteroposterior diameters of the renal pelvis in groups 1 (7.9 +/- 8.1 mm) and 2 (6.0 +/- 2.9 mm). Patients in both groups showed a non-significant median increase in differential renal function at follow-up after at least 1 year after surgery (group 1: 36% [33.3; 40.5] vs 36.5% [35.3; 41.0]; group 2: 41% [37.5; 46.0] vs 43% [39; 46]). In our patients, the new technique for laparoscopic or open fixation of the obstructing vessel after transposition was effective, reproducible, and devoid of limitations typical for the Chapman and Hellstrom techniques. We recommend Anderson-Hynes pyeloplasty in children with a history of hydronephrosis diagnosed antenatally, recurrent abdominal pain, intra-operative absence of peristalsis across the UPJ, high location of the UPJ at the renal pelvis, or intra-operative absence of volume reduction of the renal pelvis upon furosemide testing.

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Publisher
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2021

178.

Treatment of Inguinal Hernia: Systematic Review and Updated Network Meta-analysis of Randomized Controlled Trials.
Aiolfi A., Cavalli M., Ferraro S.D., Manfredini L., Bonitta G., Bruni P.G., Bona D., Campanelli G.
Embase

Annals of Surgery. 274(6) (pp 954-961), 2021. Date of Publication: 01 Dec 2021.
[Article]
AN: 2016329792
Background:Despite the advent of innovative surgical platforms and operative techniques, a definitive indication of the best surgical option for the treatment of unilateral primary inguinal hernia remains unsettled. Purpose was to perform an updated and comprehensive evaluation within the major approaches to inguinal hernia.
Method(s):Systematic review and network meta-analyses of randomized controlled trials (RCTs) compare Lichtenstein tension-free repair, laparoscopic transabdominal preperitoneal (TAPP) repair, and totally extraperitoneal repair (TEP). Risk ratio (RR) and weighted mean difference (WMD) were used as pooled effect size measures, whereas 95% credible intervals (CrI) were used to assess relative inference.
Result(s):Thirty-five RCTs (7777 patients) were included. Overall, 3496 (44.9%) underwent Lichtenstein, 1269 (16.3%) TAPP, and 3012 (38.8%) TEP repair. The Visual Analogue Scale (VAS) was significantly lower for minimally invasive repair at <12 hours, 24 hours, and 48 hours. Postoperative chronic pain [TAPP vs Lichtenstein (RR = 0.36; 95% CrI 0.15-0.81) and TEP vs Lichtenstein (RR = 0.36; 95% CrI 0.21-0.54)] and return to work/activities [TAPP vs Lichtenstein (WMD = -3.3; 95% CrI -4.9 to -1.8) and TEP vs Lichtenstein (WMD = -3.6; 95% CrI -4.9 to -2.4)] were significantly reduced for minimally invasive approaches. Wound hematoma and infection were significantly reduced for minimally invasive approaches, whereas no differences were found for seroma, hernia recurrence, and hospital length of stay.
Conclusion(s):Minimally invasive TAPP and TEP repair seem associated with significantly reduced early postoperative pain, return to work/activities, chronic pain, hematoma, and wound infection compared to the Lichtenstein tension-free repair. Hernia recurrence, seroma, and hospital length of stay seem similar across treatments.

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Publisher
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179.

Surgical Outcome and Complications of Lateral Internal Sphincterotomy in Chronic Anal Fissure-A Cross-sectional Study.
Azhough R., Taher S., Kheyavi Z.M., Jalali P.
Embase
Journal of Clinical and Diagnostic Research. 15(12) (pp PC06-PC08), 2021. Date of Publication: December 2021.
[Article]
AN: 2016194340

Introduction: Despite the advent of new methods in the conservative treatment of Chronic Anal Fissure (CAF), such as nitric oxide donors, they often require surgical treatment. The gold standard surgical option for the CAF is Lateral Internal Sphincterotomy (LIS). This procedure usually involves dividing the Internal Anal Sphincter (IAS) from the distal end to the fissure or dentate line (whichever comes first).
Aim(s): To evaluate the surgical outcome and complications of LIS in CAF.
Material(s) and Method(s): This cross-sectional descriptive study was conducted on 60 patients with CAFs who underwent LIS in Imam Reza Hospital, Tabriz, Iran. The study was approved by the Ethical Committee of Tabriz University of Medical Sciences and was done from February 2017 to March 2019. The following data were recorded: age, sex, history of constipation, constipation duration, history of prolonged diarrhoea, child birth history, type of delivery, history of receiving pharmacological treatment for fissure, history of past fissure surgery, postoperative pain, postoperative complications and recurrence rates. The results were analysed using statistical methods (mean+/-Standard Deviation (SD)) for quantitative variables and frequencies and percentages for categorical variables.
Result(s): The mean age of the patients was 36.6+/-12 years (18-70 years). During surgery, haemorrhoids, anal polyps, perianal fistulas, and anal masses were observed in 27 (45%), 7 (11.66%), 1 (1.6%), and 1 (1.6%) patients, respectively. After surgery, the patients' symptoms decreased. Anal pain, bleeding and constipation decreased in 52 (86.67%), 50 (88.33%) and 43 (71.67%) patients respectively. Urinary retention, anal itching, and flatus incontinence were observed in 3 (5%), 1 (1.67%), and 9 (15%) patients, respectively. None of the patients had fecal incontinence and none had a recurrence. Complete healing was observed in all patients.
Conclusion(s): LIS is an effective and safe option in the surgical treatment of patients with anal fissure.

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Publisher
Journal of Clinical and Diagnostic Research
Year of Publication
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180.

Comparison of Postoperative Pain and Analgesic Requirements Between Laparoscopic and Open Hernia Repair in Children.
Bruce E.S., Hotonu S.A., McHoney M.
Embase
World journal of surgery. 45(12) (pp 3609-3615), 2021. Date of Publication: 01 Dec 2021.
[Article]
AN: 636028065
BACKGROUND: This study analyses the impact of anaesthetic blockade and intraperitoneal local anaesthetic infiltration on paediatric laparoscopic inguinal hernia repair.
METHOD(S): A retrospective review of paediatric laparoscopic hernia repairs versus open repairs. Anaesthetic blockade, analgesic consumption and postoperative pain scores were compared between groups.
RESULT(S): 155 children underwent laparoscopic repair, 150 underwent open repairs. Median age was 7.2 months (16 days-14 years) in the laparoscopic group, 6 months (17 days-13 years)

in the open group. Anaesthetic blockade varied significantly; 62.7% of open cases had caudal blockade compared to 21.6% laparoscopic (p<0.001). A subset of laparoscopic patients had peritoneal local anaesthetic infiltration. 10.1% of laparoscopic cases required recovery analgesia, compared to 1.3% of open cases (p=0.001). Postoperative analgesic consumption was significantly higher in the laparoscopic group. Peritoneal infiltration reduced analgesic consumption in the laparoscopic group (p=0.038). Age< 2 was associated with use of caudal (p<0.001), which reduced analgesic consumption.
CONCLUSION(S): Laparoscopy was associated with increased use of recovery analgesia. Caudal reduced the need for rescue and postoperative analgesia. Intraperitoneal infiltration of local anaesthetic is associated with reduced postoperative analgesia in laparoscopy. In suitable patients undergoing laparoscopic surgery, combination caudal and peritoneal infiltration may prove a useful adjunctive analgesic strategy.

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Publisher
NLM (Medline)
Year of Publication
2021

181.

Evolving trends in peri-operative management of pediatric ureteropelvic junction obstruction: working towards quicker recovery and day surgery pyeloplasty.
Rickard M., Chua M., Kim J.K., Keefe D.T., Milford K., Hannick J.H., Dos Santos J., Koyle M.A., Lorenzo A.J.
Embase
World journal of urology. 39(9) (pp 3677-3684), 2021. Date of Publication: 01 Sep 2021.
[Article]
AN: 634490282
OBJECTIVE: To describe the evolution of practice patterns for pediatric pyeloplasty and determine how these changes have impacted length of stay (LOS), reoperation rates and return emergency department (ER) visits.
METHOD(S): We reviewed our pyeloplasty database from 2008 to 2020 at a quaternary pediatric referral center and we included children 0-18 years undergoing pyeloplasty. Variables captured included: age, sex, baseline and follow-up anteroposterior diameter (APD) and differential renal function (DRF). We also collected data on the use of drains, catheters and/or stents, nausea and vomiting prophylaxis, opioids, regional anesthesia, and non-opioid analgesia. Outcomes were LOS, reoperation rates and ER visits.
RESULT(S): A total of 554 patients (565 kidneys) were included. Reoperation rate was 7%, redo rate 4% and ER visits 17%. There was a trend towards less opioids, indwelling catheters and internal stents and increasing non-opioid analgesia, externalized stents, and regional anesthesia during the study period. Same-day discharge (SDD) was possible for 88 (16%) children with no differences in reoperation or readmission rates between SDD and admitted (ADM). There was a difference in ER visits (21 [24%] vs. 26 [6%]; p=0.04) for SDD vs. ADM, respectively. On multivariate analysis, the only predictor of ER visits was younger age. Patients<7 months were

more likely to present to ER (15/41; 37% vs. 6/47, 13%; p=0.009). Multivariate analysis determined indwelling catheters and opioids were associated with ADM while dexamethasone and ketorolac with SDD.
CONCLUSION(S): Progressive changes in care have contributed to a shorter LOS and increasing rates of SDD for pyeloplasty patients. SDD appears to be feasible and does not result in higher complication rates. These data support the development of a pediatric pyeloplasty ERAS protocol to maximize quicker recovery and foster SDD as a goal.

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Publisher
NLM (Medline)
Year of Publication
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182.

Preemptive analgesic efficacy of ultrasound-guided transversalis fascia plane block in children undergoing inguinal herniorrhaphy: a randomized, double-blind, controlled study.
Abdelbaser I., Mageed N.A., El-Emam E.-S.M., ALseoudy M.M., Elmorsy M.M.
Embase
Korean journal of anesthesiology. 74(4) (pp 325-332), 2021. Date of Publication: 01 Aug 2021.
[Article]
AN: 633784903
BACKGROUND: Surgical repair of congenital inguinal hernia results in significant postoperative discomfort and pain. The aim of the current study was to evaluate the pre-emptive analgesic efficacy of a transversalis fascia plane (TFP) block after pediatric inguinal herniorrhaphy.
METHOD(S): Forty-four patients aged 12 to 60 months who underwent unilateral inguinal herniorrhaphy were enrolled. Four patients were excluded, and the remaining were allocated to the control group and the TFP block group. In the TFP block group, 0.4 mL/kg bupivacaine 0.25% was instilled in the plane between the transversus abdominis and transversalis fascia, while in the control group 0.9% saline was used instead of bupivacaine. The collected data were the total dose of paracetamol consumed during the first 12 h postoperatively, the postoperative Face, Leg, Activity, Cry, Consolability (FLACC) pain score, time to first use of rescue analgesia, number of patients required additional postoperative analgesics, and parents' satisfaction.
RESULT(S): The median paracetamol consumption was significantly lower in the TFP block group than in the control group, and FLACC pain scores were significantly lower for all study times in the TFP block group with higher parental satisfaction scores than those for the control group. The number of patients who required additional analgesics was significantly lower in the TFP block group than in the control group.
CONCLUSION(S): The use of a TFP block decreases postoperative analgesic consumption and postoperative pain intensity after pediatric inguinal herniorrhaphy. Future studies with larger sample size are required to evaluate the actual complications rate of TFP block.

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Publisher
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183.

Effect of dexmedetomidine on perioperative hemodynamics and organ protection in children with congenital heart disease: A randomized controlled trial.
Ming S., Du X., Huang H., Fan Y., Liang Q., Xie Y.
Embase
Medicine. 100(1) (pp e23998), 2021. Date of Publication: 08 Jan 2021.
[Article]
AN: 634016513
BACKGROUND: This study aimed to investigate the effects of dexmedetomidine (Dex) on hemodynamics and organ protection in congenital heart disease (CHD) children who underwent open-heart surgery under cryogenic cardiopulmonary bypass.
METHOD(S): Ninety children were randomly allocated to group C (0.9% saline 0.2 mug/kg/hour), group D1 (Dex 0.2 mug/kg/hour), and group D2 (Dex 0.4 mug/kg/hour) (n = 30 per group). All participants received fentanyl, propofol and 1% sevoflurane for anesthesia induction. Hemodynamic data were measured from T0 (before the induction) to T7 (30 minutes after extubation). The difference of arterial internal jugular vein bulbar oxygen difference and cerebral oxygen extraction ratio were calculated according to Fick formula. Enzyme-linked immunosorbent assay was performed to detect the serum myocardial, brain and kidney injury markers. The incidence of acute kidney injury (AKI) was calculated by serum creatinine level. Tracheal extubation time, postoperative pain score and emergence agitation score were also recorded.
RESULT(S): Compared with group C, group D1, and D2 exhibited reduction in hemodynamic parameters, myocardial and brain injury indicators, and tracheal extubation time. There were no significant differences in blood urea nitrogen and neutrophil gelatinase-associated lipocalin or incidence of AKI among the 3 groups. Besides, the incidence of tachycardia, nausea, vomiting and moderate agitation, and the FLACC scale in group D1 and D2 were lower than those in group C. Moreover, Dex 0.4 g/kg/hour could further reduce the dosage of fentanyl and dopamine compared with Dex 0.2 g/kg/hour.
CONCLUSION(S): Dex anesthesia can effectively maintain hemodynamic stability and diminish organ injuries in CHD children.

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Publisher
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184.

Do continuous forms of intra-operative ultrafiltration enhance recovery after adult cardiac surgery with cardiopulmonary bypass? A protocol for systematic review and meta-analysis of randomized controlled trials.
Bierer J., Horne D., Stanzel R., Henderson M., Boulos L., Hayden J.
Embase
Systematic Reviews. 10(1) (no pagination), 2021. Article Number: 265. Date of Publication: December 2021.
[Article]
AN: 2013906511
Background: Cardiac surgery with cardiopulmonary bypass (CPB) is associated with a systemic inflammatory syndrome that adversely impacts cardiopulmonary function and can contribute to prolonged postoperative recovery. Intra-operative ultrafiltration during CPB is a strategy developed by pediatric cardiac specialists, aiming to dampen the inflammatory syndrome by removing circulating cytokines and improving coagulation profiles during the cardiac operation. Although ultrafiltration is commonly used in the pediatric population, it is not routinely used in the adult population. This study aims to evaluate if randomized evidence supports the use of continuous intra-operative ultrafiltration to enhance recovery for adults undergoing cardiac surgery with CPB.
Method(s): This systematic review and meta-analysis will include randomized controlled trials (RCT) that feature continuous forms of ultrafiltration during adult cardiac surgery with CPB, specifically assessing for benefit in mortality rates, invasive ventilation time and intensive care unit length of stay (ICU LOS). Relevant RCTs will be retrieved from databases, including MEDLINE, Embase, CENTRAL and Scopus, by a pre-defined search strategy. Search results will be screened for inclusion and exclusion criteria by two independent persons with consensus. Selected RCTs will have study demographics and outcome data extracted by two independent persons and transferred into RevMan. Risk of bias will be independently assessed by the Revised Cochrane Risk-of-Bias (RoB2) tool and studies rated as low-, some-, or high- risk of bias. Meta-analyses will compare the intervention of continuous ultrafiltration against comparators in terms of mortality, ventilation time, ICU LOS, and renal failure. Heterogeneity will be measured by the chi2 test and described by the I2 statistic. A sensitivity analysis will be completed by excluding included studies judged to have a high risk of bias. Summary of findings and certainty of the evidence, determined by the GRADE approach, will display the analysis findings.
Discussion(s): The findings of this systematic review and meta-analysis will summarize the evidence to date of continuous forms of ultrafiltration in adult cardiac surgery with CPB, to both inform adult cardiac specialists about this technique and identify critical questions for future research in this subject area. Systematic review registration: This systematic review and meta-analysis is registered in PROSPERO CRD42020219309 (https://www.crd.york.ac.uk/prospero/display_record.php?ID=CRD42020219309).

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Publisher
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185.

Perioperative major neurologic deficits as a complication of spine surgery.
Barrett K.K., Fukunaga D., Rolfe K.W.
Embase
Spinal Cord Series and Cases. 7(1) (no pagination), 2021. Article Number: 81. Date of Publication: December 2021.
[Article]
AN: 2013680425
Study design: Retrospective review of spine surgery patients with new major neurologic complication.
Objective(s): To define the causes and severity of new neurologic damage to the spinal cord or cauda equina caused by spinal surgery.
Material(s) and Method(s): Consult records were reviewed for all postoperative spine surgery patients referred to a tertiary spinal cord injury rehabilitation center over a 12-year period. Any patients with a new perioperative surgery-related decrement in American Spinal Injury Association (ASIA) Impairment Scale (AIS), loss of bowel or bladder function, or loss of ability to ambulate were examined and final 1-year gaps for neurologic loss reported.
Result(s): 64 patients had a new perioperative major neurologic event with: 41% thoracic, 39% cervical, and 20% lumbar; 61% intraoperative, 31% in the immediate 2-week postoperative period, 8% unknown. Chronic myelopathy (44%) was the most common indication. The causes of neurologic injury were postoperative fluid collection (25%), malposition of instrumentation (14%), traumatic decompression (14%), cord infarct (11%), deformity correction (2%), and unknown (34%). Overall, 87% lost the ability to ambulate and 66% lost volitional bowel-bladder control. AIS decrement and loss of ambulation and bowel-bladder function did not differ statistically significantly by surgical indication. However, among the main root causes, traumatic decompressions and cord infarcts had significantly worse neurologic deterioration than fluid collections or malposition of instrumentation.
Conclusion(s): The relative rate of major neurologic injury in spine surgery is higher in thoracic and cervical cases at spinal cord levels, especially when done for myelopathy, even though lumbar surgeries are most common. The most common causes of neurologic injury were potentially avoidable postoperative fluid collections, malposition of instrumentation, and traumatic decompression.

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Publisher
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186.

Percutaneous hepatic melphalan perfusion: Single center experience of procedural characteristics, hemodynamic response, complications, and postoperative recovery.
Struck M.F., Kliem P., Ebel S., Bauer A., Gossmann H., Veelken R., van Bommel F., Dennecke T., Stehr S.N., Girrbach F.F.
Embase
PLoS ONE. 16(7 July) (no pagination), 2021. Article Number: e0254817. Date of Publication: July 2021.
[Article]
AN: 2013626938
Background Percutaneous hepatic melphalan perfusion (PHMP) for the selective treatment of hepatic metastases is known to be associated with procedural hypotension and coagulation disorders. Studies on anesthetic management, perioperative course, complications, and postoperative recovery in the intensive care unit (ICU) have not been published. Methods In a retrospective observational study, we analyzed consecutive patients who were admitted for PHMP over a 6-year period (2016-2021). Analyses included demographic, treatment, and outcome data with regard to short-term complications until ICU discharge. Results Fifty-three PHMP procedures of 16 patients were analyzed. In all of the cases, procedure-related hypotension required the median (range) highest noradrenaline infusion rate of 0.5 (0.17-2.1) mug kg min-1 and fluid resuscitation volume of 5 (3-14) liters. Eighty-four PHMP-related complications were observed in 33 cases (62%), of which 9 cases (27%) involved grade III and IV complications. Complications included airway constriction (requiring difficult airway management), vascular catheterization issues (which resulted in the premature termination of PHMP, as well as to the postponement of PHMP and to the performance of endovascular bleeding control after PHMP), and renal failure that required hemodialysis. Discharge from the ICU was possible after one day in most cases (n = 45; 85%); however, in 12 cases (23%), prolonged mechanical ventilation was required. There were no procedure-related fatalities. Conclusions PHMP is frequently associated with challenging cardiovascular conditions and complications that require profound anesthetic skills. For safety reasons, PHMP should only be performed in specialized centers that provide high-level hospital infrastructures and interdisciplinary expertise.

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Publisher
Public Library of Science
Year of Publication
2021

187.

Opioid Use after Pediatric Urologic Surgery: Is It Really Needed?.
Carolan A.M.C., Parker K.M., Grimsby G.M.
Embase
Urology. 158 (pp 184-188), 2021. Date of Publication: December 2021.
[Article]
AN: 2013027078
Objectives: To identify factors associated with opioid use after pediatric urologic surgery, use this data to educate our patients and colleagues on decreasing post-operative opioid use, and assess the effectiveness of this approach.
Method(s): From 1/2018 - 12/2019, a written questionnaire asking which pain medications were used after surgery was given to patients' families before routine post-operative appointments. A retrospective review of the surveys and patient charts was performed. Demographic factors were compared between patients who did and did not use opioids with Fisher's exact and t tests. Midway through the study, the results were presented to the urology department in an attempt to reduce opioid use over the next year. The number of opioid prescriptions and patients who used opioids after surgery in 2018 versus 2019 was compared.
Result(s): 1001 patients were included with a mean age of 5 years, 96% male. Patients used a mean of 4.5 doses of opioids and 83% had leftover opioids. Factors significantly associated with not using opioids included age less than 3, penile, and endoscopic surgery. Between 2018 and 2019-despite no significant difference in patient age, gender, or procedure type-the number of patients who were prescribed (61% vs 34%, P < .0001) and who used opioids (55 vs 28%, P < .0001) was significantly decreased.
Conclusion(s): After pediatric urologic surgery, many patients do not need opioid prescriptions. Reviewing our own opioid use practices and providing education within our department allowed us to significantly decrease the number of opioids prescribed and used after surgery.

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Elsevier Inc.
Year of Publication
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188.

Pediatric Regional Anesthesia: New Techniques, Better Outcomes?.
Masaracchia M.M., Dean K.A.
Embase
Current Anesthesiology Reports. 11(3) (pp 223-232), 2021. Date of Publication: September 2021.
[Review]
AN: 2013320357
Purpose of Review: The following discussion aims to provide a review of current trends in the subspeciality of pediatric regional anesthesia, highlighting recent evidence-based literature, especially with respect to improved outcomes with newer techniques. Recent Findings: Much of the recent literature focuses on novel truncal blocks and alternate approaches to regional anesthesia for urologic surgery. In many cases, these newer techniques have been shown to improve postoperative pain scores and lower rescue analgesic requirements.
Summary: Current trends in pediatric regional anesthesia are focused on providing innovative and alternative approaches to pain relief that are patient-specific and tailored to surgical needs. A variety of new blocks expand the regionalist's ability to offer better analgesia to children and improve parental satisfaction. As more regional block options become available, the iterative process of making changes and assessing outcomes facilitates our ability to continue providing high quality care to children.

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Publisher
Springer
Year of Publication
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189.

Split appendix catheterizable urinary channels are at no higher risk of undergoing revision compared to channels made with the intact appendix.
Adams C.M., Misseri R., Rink R.C., Kaefer M., Whittam B.M., Chan K.H., Szymanski K.M.
Embase
Journal of Pediatric Urology. 17(5) (pp 703.e1-703.e6), 2021. Date of Publication: October 2021.
[Article]
AN: 2013947803
Objective: To assess long-term APV and split-appendix MACE durability and to compare split and intact appendix APVs in a large patient cohort.
Method(s): This retrospective cohort study included consecutive patients <=21 years old undergoing an APV at our institution (1990-2019). Main outcomes were stomal and subfascial revisions. Kaplan Meier survival and Cox proportional hazards analysis were used.
Result(s): A total of 339 patients underwent APV creation at a median 7.4 years old (41% female vs. 59% male; 37% umbilical stoma vs. 63% other). In total, 36 patients underwent a stomal revision and 19 a subfascial revision (median channel follow-up 6.3 years). On survival analysis, the risk of stomal revision of the APV was 9.1% at 5 years, 12.6% at 10 years and 16.5% at 15

years. Risk of subfascial revision of the APV was 5.1% at 5 years, 7.0% at 10 years and 8.2% at 15 years. A split-appendix APV was performed in 118 (34.8%) of 339 patients. They had a shorter follow-up compared to those with an intact APV (5.1 vs. 7.0 years, p = 0.03). After correcting for differential follow-up time, there was no significant difference between groups for stomal revisions (HR 1.11, p = 0.76) or subfascial revisions (HR 0.80, p = 0.67, Figure). Risk of APV stomal revision was independent of stomal location and age at surgery (p >= 0.37). Similarly, risk of subfascial APV revision was independent of stomal location and age at surgery (p >= 0.18). Risk of stomal revision for split-appendix MACE channels was 16.2% at 5, 10 and 15 years (similar to split-appendix APV and all APVs, p >= 0.26). Risk of MACE subfascial revision was 5.5% at 5 years, 5.5% at 10 years and 14.7% at 15 years (similar to split-appendix APV and all APVs, p >= 0.36). Comment: We focused on surgical complications, as these entail the highest morbidity, however, we did not assess non-surgical, percutaneous or endoscopic management which also impact long-term outcome and patient quality of life. We did not compare the outcomes of the split-appendix MACE to an intact-appendix MACE cohort, as this patient population was not captured in this review.
Conclusion(s): The split-appendix technique has durable long-term results for both the APV and MACE channels, which are comparable to the technique utilizing the intact appendix. Channel complications occur over the channel's lifetime, as 1 in 8 APVs in the entire cohort underwent a stomal revision and 1 in 14 APVs underwent a subfascial revision at 10 years after surgery.[Formula presented]

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Publisher
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190.

Quality of Life of Patients After Laparoscopic Pyeloplasty Due to Ureteropelvic Junction Obstruction: A Long-Term Observation.
Panek W., Janczak D., Panek M., Szydelko U., Chrzan R., Chabowski M., Szydelko T.
Embase
Advances in Experimental Medicine and Biology. 1335 (pp 45-51), 2021. Date of Publication: 2021.
[Chapter]
AN: 636517173
This study aims to define the quality of life (QoL) of patients who had undergone laparoscopic pyeloplasty due to ureteropelvic junction obstruction. The QoL was investigated in 26 patients after pyeloplasty, on average, at a 7.5-year follow-up. The operation was performed in a single center between 2002 and 2009 and its effectiveness was confirmed by diuretic renography. The QoL was assessed using the World Health Organization Quality of Life (WHOQOL-BREF) questionnaire. Additionally, we used an own questionnaire, created for this study, specifically

assessing the health-related quality of life after pyeloplasty. Overall, 96% of patients were satisfied with the surgical procedure and all would agree to have another pyeloplasty procedure if needed. In one case, dissatisfaction was caused by persisting postoperative pain. All patients but one, dissatisfied due to persisting pain, reported that the postoperative pain intensity was not a problem that would impact the QoL or professional activity. We conclude that laparoscopic pyeloplasty did not adversely affect the patients' QoL, which might stem from beneficial functional outcomes making the patients satisfied with treatment results.

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Publisher
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191.

Prescribing patterns, indications and adverse events of ibuprofen in children: results from a national survey among Italian pediatricians.
Martinelli M., Quaglietta L., Banderali G., Ferrara P., Romano C., Staiano A.
Embase
Italian Journal of Pediatrics. 47(1) (no pagination), 2021. Article Number: 98. Date of Publication: December 2021.
[Article]
AN: 2011262458
Background: Despite ibuprofen widely recognized safety profile, an increase of suspected adverse events has been reported in the last decade in parallel with its growing over-the-counter use. The aims of this study were to assess the therapeutic approach to the feverish child and to evaluate the main indications and the most frequent adverse events related to ibuprofen administration in children.
Method(s): A specific questionnaire-form regarding the management of ibuprofen therapy in children was distributed among a sample of pediatricians all over the Italian territory between September and October 2020. An electronic data collection through a specifically designed web-based platform was performed among the participating pediatricians.

Result(s): One-hundred-eighty-one pediatricians completed the survey. In case of fever, 177 (98%) participants prescribe paracetamol, while only 4 (2%) preferred ibuprofen as first choice. One-hundred-twenty-eight pediatricians (71%) administer paracetamol alone, while 53 (29.2%) use the combined/alternating treatment with ibuprofen. Ibuprofen is mostly administered for musculoskeletal pain (30%), upper respiratory tract infection (20%), headache (15%) and post-surgical pain (9%). Sixty-three (35%) out of 181 participating pediatricians reported 191 adverse events during ibuprofen administration. The most common were gastrointestinal (GI), with GI bleeding being reported in 30/191 cases (15.7%), epigastric pain in 29/191 (15.1%), non-specified abdominal pain in 22/191 (11.1%) and nausea/vomiting in 21/191 (11%). Severe adverse events including kidney damage (3.1%), complicated infections (0.5%), pneumonia associated empyema (0.5%), soft tissue infection (0.5%) and disseminated intravascular coagulation (0.5%) were also reported. The adverse events led to a hospitalization in 12% of children. In 53/191 cases (28%) the adverse events were related to a wrong dosage or prolonged therapy or errors in frequency of administration.
Conclusion(s): This survey demonstrate a sufficient awareness of Italian pediatricians regarding ibuprofen-prescribing patterns with the only possible concern related to the relatively high percentage of pediatricians performing a combining/alternating use of paracetamol and ibuprofen. The reported adverse events were mild in most of the cases and often related to errors in dosage, frequency and treatment duration, emphasizing the need for a major caution of both practitioners and patients in their use.

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192.

Postoperative pediatric urology opioid prescriptions at a tertiary academic medical center.
Donnelly L., Feustel P.J., Cangero T., Kogan B.
Embase
Journal of Pediatric Urology. 17(5) (pp 633.e1-633.e6), 2021. Date of Publication: October 2021.
[Article]
AN: 2013947788

Introduction: Opioid abuse is a public health crisis, and often this starts postoperatively. Limited data are available on pediatric urology practitioners. We examined the likelihood of postoperative opioid prescriptions in our practice.
Objective(s): To determine rates of post-operative opioid prescriptions following urologic surgery in a tertiary academic center, and to identify what factors are related to opioid prescriptions. Study design: We retrospectively reviewed opioid prescriptions for children who underwent a procedure in the operating room between 1/1/17 and 12/31/19. We collected data on gender, age, surgeon, procedure, length of stay, ethnicity, race, and whether opioids had been used pre-operatively. We grouped procedures into five categories: minor penile surgery, cystoscopic procedures, scrotal surgery, hypospadias repair/penoplasty, and pyeloplasty/ureteral reimplant. Multivariable logistic regression was used to determine odds ratios (OR) of opioid prescriptions.
Result(s): 1102 procedures had data available. 14.2% (n = 156) received opioid prescriptions. Using minor penile surgery as a baseline, scrotal surgery increased the odds of an opioid by 1.42; hypospadias, pyeloplasty, and other procedures reduced the odds by 0.53, 0.55, and 0.54, respectively (no patient received opioids for endoscopic procedures). Ambulatory procedures had a lower rate of opioids (0.40), and age was a major factor, with the odds of a prescription increasing by a factor of 1.45 per year of age. Since January of 2017, the opioid prescription rate has decreased from 18% in 2017 to 7.7% in 2019.
Discussion(s): We found a relatively low rate of opioid prescribing in our pediatric patients, mostly in older children undergoing penile and scrotal procedures. Our rate was comparable to several other institutions that have examined their prescription rates in surgical patients. Heightened awareness has resulted in decreased opioid usage over time (to 6.9%). Limitations included the retrospective nature of our study, which did not allow us to assess whether pain control was adequate or if the opioids prescribed were used by patients. Opioids are rarely needed in pediatric patients.
Conclusion(s): 85.8% of post-operative pediatric urology patients at our institution were not provided with prescription opioids. Factors associated with a higher likelihood of receiving a prescription were increasing age and scrotal surgery.

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193.

Comparison of Caudal Block vs. Penile Block vs. Intravenous Fentanyl Only in Children Undergoing Penile Surgery: A Prospective, Randomized, Double Blind Study.
Ekstein M., Weinbroum A.A., Ben-Chaim J., Amar E., Schvartz R., Klein Y., Bar-Yosef Y.
Embase
Frontiers in Pediatrics. 9 (no pagination), 2021. Article Number: 654015. Date of Publication: 26 Mar 2021.

[Article]
AN: 634706489
Objectives: Penile surgery is commonly performed in pediatric surgical centers. There is no consensus regarding which analgesic method is most effective in controlling pain in these children.
Method(s): Consecutive children between 4 months and 16 years of age who underwent elective penile surgery were recruited. After inhaled induction of anesthesia, children were randomized to one of three methods of intraoperative analgesia: caudal block, IV fentanyl titrated to surgical response and spontaneous respiration, or dorsal penile nerve block (DPNB). All patients were given inhaled agents; fentanyl was added if either block was insufficient. Demographic data, analgesic use and pain scores were recorded by a blinded investigator in the PACU and ward. Pain scores, analgesic requirement, and recovery parameters of returning to normal activity level, eating, and voiding post-operatively for up to 4 days, were compared.
Result(s): 116 children were recruited. Pain scores in the post anesthesia care unit were significantly lower in the DPNB and caudal block groups compared to the fentanyl group for the first 30 postoperative min. Pain scores and analgesic use were subsequently similar among the three groups for the rest of the study period. There was no statistical difference in time to eat, return to normal activity or in parental satisfaction scores among the groups. There was a trend toward earliest time to void in the DPNB group.
Conclusion(s): Regional blocks most effectively controlled pain for 30 min after surgery. The choice of intra-operative analgesia protocol had no effect on later pain and recovery parameters.

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Publisher
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194.

Comparison of the postoperative analgesic effects of levobupivacaine wound instillation with a placebo after unilateral inguinal hernia repair: A randomized-controlled trial.
Sujica M., Gazibara T., Mandras A., Krunic I., Vuckovic S.
Embase
Central European Journal of Paediatrics. 17(2) (pp 93-102), 2021. Date of Publication: 2021.
[Article]
AN: 2014480064
Objective - To compare the effectiveness and safety of wound instillation with levobupivacaine with a placebo, in children who underwent inguinal hernia repair, for pain relief. The secondary objective was to examine the frequency of postoperative analgesic mixture (paracetamol/ibuprofen) use. Methods - Single center randomized placebo-controlled trial. Paediatric teaching hospital in Belgrade, Serbia. This study included 100 children who underwent elective surgery for unilateral inguinal hernia. Children were randomized by simple randomization into two groups (N=50 in the experimental group, N=50 in the control group). A solution of 0.5% levobupivacaine, 0.5 mg/kg (0.1 ml/kg) was instilled into the wounds of children in the

experimental group before suturing the abdominal fascia. The same amount of 0.9% saline was administered to the children in the control group. The primary outcome was the level of postoperative pain after coming round from general anesthesia (t0) and at 2h, 6h, 12h, 18h and 24h after surgery. The FLACC (Face, Legs, Activity, Cry, Consolability) scale was used to assess the level of pain. The secondary outcome was the frequency of paracetamol/ibuprofen use for pain relief after surgery. Results - Out of the total number of children (100), 70% were boys (70) and 30% were girls (30), and their average age was 3.5+/-1.9 years. The average duration of surgical intervention in both groups was 31.6+/-4.2 minutes. Significantly fewer children in the experimental group reported pain (FLACC >=1) at 2h (P=0.032) and 6h (P=0.001) after surgery, compared to the children in the control group (8 vs. 17 at 2h after surgery; 4 vs. 14 at 6h after surgery). Significantly fewer children in the control group reported sensations of pain that required administration of analgesics 6h after surgery (FLACC >3) compared to the control group (P=0.001) (1 vs. 14). Overall, significantly fewer children in the experimental group received a paracetamol/ibuprofen mixture for pain relief after surgery, compared to the children in the control group (P<0.001) (4 vs. 50). The average daily amount of acetaminophen in the experimental group was 28+/-127 mg/kg/day and ibuprofen 5.6+/-1.8 mg/kg/day, while in control group, acytaminophen 42.5+/-7.7 mg/kg/day and ibprofen 11.5+/-4 mg/kg/day. The total amount of analgesics was highly statistically significantly lower in the experimental group (P<0.001). Conclusion - Instillation of levobupivacaine before wound suturing in children who had undergone elective inguinal hernia surgery repair was effective in postoperative pain relief. Children who received levobupivacaine also received less of the paracetamol/ibuprofen mixture to relieve their pain over 24 hours after surgery.

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Publisher
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195.

Surgical anatomy of the rectus-sparing approach for periacetabular osteotomy a cadaveric study.
Kalhor M., Gharehdaghi J., Leunig M., Ahmadloo J., Gastalver D.C., Ganz R.
Embase
JBJS Essential Surgical Techniques. 11(2) (no pagination), 2021. Article Number: 00030. Date of Publication: 03 Jun 2021.
[Article]
AN: 2015523316
Background: The Bernese periacetabular osteotomy (PAO) is a widely used technique for the management of acetabular dysplasia and other hip deformities in adolescents and young adults. Originally, the approach was described with a release of both origins of the rectus femoris muscle1. In the more recently described rectus-sparing approach, both heads remain attached2,3. It has been proposed that this modification may decrease pain, ease postoperative rehabilitation, and avoid heterotopic ossifications, without limitations of the surgical overview. Description: Both the original and the rectus-sparing approach are modifications of the Smith-

Petersen approach. The skin incision and further dissection remain identical in both approaches for the protection of the lateral femoral cutaneous nerve, the osteotomy of the anterior superior iliac spine (or takedown of the inguinal ligament), the exposure of the iliac fossa, and the medial retraction of the abdominal and iliopsoas muscles. In both variants, the further dissection traverses the iliopectineal bursa. In contrast to the original approach, in which the rectus muscle becomes part of the medial flap after releasing both heads, the rectus-sparing approach involves the undetached rectus muscle becoming part of the lateral flap while the medial flap includes the sartorius and iliacus-iliocapsularis muscles. The anterior capsule and deep structures can be accessed through the interval between the rectus femoris and iliopsoas muscles or lateral to the rectus muscle. The remaining surgical steps are again similar in both techniques. According to preference, the surgeon starts with the pubic osteotomy or with the ischial cut first, the latter avoiding additional bleeding from the pubic osteotomy. For the ischial osteotomy, the bone is accessed by making an anteroposterior tunnel between the medial capsule and the iliopsoas tendon anteriorly and between the medial capsule and the obturator externus muscle posteriorly. While the ischial osteotomy is an incomplete separation, the pubic osteotomy is a complete separation. It sections the superior pubic ramus medial to the iliopectineal eminence, in a somewhat oblique fashion. The third and fourth cuts are made in the iliac bone in such a way as to keep the posterior column intact. By connecting the posterior iliac and ischial cuts as the last osteotomy step, the acetabulum is freed and repositioned as needed. The aim of our cadaver dissection is primarily to describe part of the rectus-sparing approach and to test this modification for eventual disadvantages over the classic approach. The remaining steps of the procedure correspond to the approach as described earlier1,4, appreciating that several modifications of the procedure are in use. Alternatives: Nonsurgical treatment may be an alternative in borderline dysplasia; however, it needs to be reconsidered and eventually changed to surgical treatment when symptoms persist or come back. Other current techniques for surgical treatment of adolescent and adult hip dysplasia include triple and rotational or spherical osteotomies5-7. Rationale: The Bernese PAO is performed through a single incision. All cuts are performed from the inner side of the pelvis, avoiding interference with the vascularity of the acetabular and periacetabular bone, which mainly comes from the outside of the pelvis8. The procedure needs minimal hardware for fixation, and partial weight-bearing can be allowed. The PAO provides a wide range of acetabular reorientation options. Wide capsulotomy and intra-articular procedures are possible, as well as additional femoral corrections. Childbirth via natural delivery is possible even after bilateral PAO9. Nerve injuries can be guarded against with careful surgical execution of the osteotomies.

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196.

Introduction of an enhanced recovery pathway results in decreased length of stay in patients with adolescent idiopathic scoliosis undergoing posterior spinal fusion: A description of implementation strategies and retrospective before-and-after study of outcomes.
Rao K.E., Krodel D., Toaz E.E., Fanelli J., Hajduk J., Kato K., Rychlik K., King E., Sarwark J., Grayhack J., Burjek N.E.
Embase
Journal of Clinical Anesthesia. 75 (no pagination), 2021. Article Number: 110493. Date of Publication: December 2021.
[Article]
AN: 2014364605
Study objective: This study assessed whether implementation of an enhanced recovery-based pathway decreased length of stay without increasing readmissions among patients with adolescent idiopathic scoliosis undergoing posterior spinal fusion.
Design(s): Retrospective observational before-and-after study.
Setting(s): A tertiary children's hospital.
Patient(s): A total of 117 patients were studied, 78 in the pre-intervention group and 39 in the post-intervention group. All patients underwent posterior spinal fusion (PSF) for adolescent idiopathic scoliosis (AIS) in the same institution with one of two spine surgeons. Age, sex, American Society of Anesthesiologists physical status, and Cobb angle were comparable between the two groups.
Intervention(s): Between the pre- and post-intervention groups an enhanced recovery protocol was developed. The pathway included standardized use of nonopioid analgesics, proactive transition to oral analgesics, scheduled antiemetics, plans for diet advancement, and specific physical therapy goals. Measurements: Outcome measurements included hospital length of stay, cumulative opioid doses in the first two postoperative days, and time to discontinuation of urinary catheter and patient-controlled analgesia. Postoperative emergency department visits, hospital readmissions and chronic pain management referrals were also measured. Pain scores on postoperative days one through four were recorded.
Main Result(s): Hospital length of stay decreased from 4.6 days to 3.8 days. Patient-controlled analgesia (PCA) was discontinued one day earlier on average following pathway implementation. Average cumulative postoperative opioid use, in morphine equivalents, decreased in the first two postoperative days from 2.5 to 2.2 mg/kg. There was no change in hospital readmission rate or postoperative chronic pain referral.
Conclusion(s): Patients undergoing PSF for AIS experienced shorter hospital stays without increased readmissions following the implementation of an enhanced recovery pathway. Development of this pathway required buy-in from multiple stakeholders and significant coordination among services. The principles used to develop this pathway may be applied in other institutions and to other patient populations using the model outlined here.

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197.

Postoperative outcomes of ureteroscopy for pediatric urolithiasis: A secondary analysis of the National Surgical Quality Improvement Program Pediatric.
Davidson J., Ding Y., Chan E., Dave S., Bjazevic J., Filler G., Wang P.Z.T.
Embase
Journal of Pediatric Urology. 17(5) (pp 649.e1-649.e8), 2021. Date of Publication: October 2021.
[Article]
AN: 2013187753
Introduction: Incidence of pediatric urinary stone disease (PUSD) has increased over recent decades. Innovations in ureteroscopic technology has expanded the role of endourologic stone management in children. However, there is currently no consensus on the optimal use of ureteroscopy (URS) within the heterogenous PUSD population.
Objective(s): The primary objective was to investigate the rate of 30-day unplanned readmissions in pediatric patients after URS. The secondary objective was to examine the influence of demographic, perioperative, postoperative, and reoperation variables as predictors of an increased risk of unplanned readmission in this sample. Study design: A secondary analysis was performed on retrospectively collected data from the National Surgical Quality Improvement Program Pediatric between 2015 and 2018. Pediatric patients diagnosed with PUSD and treated with URS were identified. Patients undergoing concurrent or additional surgeries during the URS procedure were excluded. Data on demographic, perioperative, postoperative, and unplanned reoperation variables were examined for their possible influence on 30-day unplanned readmissions. Descriptive statistics were used to characterize the study cohort. Continuous and categorical variables were analyzed using independent samples t-test, one-way ANOVA with Tukey post-hoc test, and Chi-square Tests or Fisher's Exact Test, respectfully. Multivariate analysis was performed using stepwise logistic regression.
Result(s): A total of 2510 patients were identified within the study period. The majority of children undergoing URS were between 12 and 18 years of age (66.1%), female (56.9%), and had renal calculi (45.2%). Of these, 162 (6.5%) experienced a 30-day unplanned readmission related to the URS procedure. The most common reasons for an unplanned readmission was urinary tract infection (31.4%), new/unresolved stone (28.3%), and postoperative pain (8.2%). Multivariate modelling showed that females (Relative Risk [RR]: 2.03; 95% Confidence Interval [95%CI]: 1.34-3.07), patients with renal stones (RR: 1.77; 95%CI: 1.10-2.83), and inpatients at the time of surgery (RR: 1.61; 95%CI: 1.03-2.51) were more at risk of an unplanned readmission within 30-days of an URS procedure. [Table presented]
Conclusion(s): This study reports on short-term unplanned readmission rates in pediatric patients who underwent an URS procedure. Further it highlights possible predictors of unplanned readmission rates within a sampling of patients from NSQIP affiliated institutions. The findings from this study can be used to guide future studies around the safe use of URS in pediatric patients.

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198.

The impact of patient age and procedure type on postoperative opioid use following ambulatory pediatric urologic procedures.
Basin M.F., Baker Z.G., Trabold M., Zhu T., Kelley-Quon L.I., Bhaskar N., Vazirani R., Chen J., Kokorowski P.J.
Embase
Pediatric Surgery International. 37(8) (pp 1127-1133), 2021. Date of Publication: August 2021.
[Article]
AN: 2011309220
Purpose: The aim of this study is to determine whether patient age and procedure type are associated with duration of opioid use in pediatric patients undergoing ambulatory urologic procedures.
Method(s): We retrospectively reviewed pediatric patients who underwent outpatient urologic procedures from 2013 to 2017. At postoperative visits, parents reported the number of days their child took opioid pain medication. Factors associated with duration of opioid use were evaluated using negative binomial regression models.
Result(s): 805 patients were included: 320 infants (39.8%), 430 children (53.4%), and 55 adolescents (6.8%). Overall mean length of opioid use was 1.7 (+/- 2.6) days. On average, infants used opioids for the shortest duration: 1.5 (+/- 2.3) days, followed by children: 1.7 (+/- 2.5) days, and adolescents: 3.1 (+/- 4.6) days. In adjusted models, adolescents used opioids for 85.2% longer (95% CI 13.1-161.8%; $p < 0.001$) than children and infants used opioids for 19.4% shorter duration (95% CI 0.4-34.7%; $p = 0.05$) than children. Each 1-year increase in age was associated with 6.1% increased duration of opioid use (95% CI 3.9-8.5%; $p < 0.0001$). Patients who underwent circumcision, hypospadias repair, and penile reconstruction took opioids for 75.9% (95% CI 42.6-117.1%; $p < 0.001$), 144.2% (95% CI 76.4-238.0%; $p < 0.001$), and 126.7% (95% CI 48.8-245.3%; $p < 0.001$) longer respectively than patients who underwent inguinal procedures.
Conclusion(s): Increasing age, circumcision, hypospadias repair, and penile reconstruction are associated with increased duration of opioid use.

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199.

The outcome of laparoscopic assisted orchidopexy in very young children: A single hospital experience.
Al Hindi S., Khalaf Z.
Embase
Journal of Pediatric Urology. 17(4) (pp 536.e1-536.e7), 2021. Date of Publication: August 2021. [Article]
AN: 2011596124
Introduction: Early orchidopexy has been linked to improved long term outcomes of fertility and reduced malignancy rates. However, the optimal age of intervention has been subject to change over the years.
Objective(s): This study aims to study males aged 6 months or less who undergo laparoscopic assisted orchidopexy for intraabdominal testes to establish the safety, efficacy, and benefit in the defined age group. Study design: We prospectively assessed 19 boys at or below 6 months of age, who had laparoscopic assisted orchidopexy for intraabdominal undescended testes at Salmaniya Medical Complex in Bahrain between January 2014 and December 2018. We examined: demographics, laterality, testicular locations, testicular volumes, operative time, complications, and durations of hospitalization and follow-up. Ultrasound-derived testicular volumes were assessed before and after orchidopexy. They were calculated using the Hansen formula (Testicular volume = 0.52 x length [L] x width [W]2 [1]. They were then compared with reference ranges from a Dutch cohort study of 769 healthy boys. Successful outcomes were correct intrascrotal position with minimal complications and normal testicular volumes.
Result(s): A total of 19 males were operated at a mean age of 5.6 months and followed for a mean of 2.35 years. Of these, 7 had left-sided and 12 had right-sided cryptorchidism. Testicular locations were noted intra-operatively; 10 were above the internal ring, 5 near the iliac vessels, and 4 close to the kidney. The mean operative time was 59.58 minutes. Only 2 minor complications occurred and no cases of testicular atrophy. None of the patients required hospital-stay beyond 24 hours. The success rate was 89.46% in achieving correct scrotal position. Testicular volumes were normal before and after orchidopexy. They significantly increased after

orchidopexy (P <= 0.05). The testicular growth rate after 24 months was slightly higher than normal.
Discussion(s): In line with previous studies we were 89.46% successful in re-positioning testes [2]. In contrast to studies intervening at older ages which associated intra-abdominal testes with greater risks of complications, we found few minor complications and no testicular atrophy [3,4]. Testicular volumes in the affected testes were normal, contrary to decreased volumes found by other researchers [5]. Limitations of this study are the small number of patients and short follow-up which limits assessment of long-term outcomes.
Conclusion(s): Early orchiopexy is safe and effective. Laparoscopic assisted orchidopexy at an early age was beneficial and resulted in normal testicular volumes before and after surgery.[Formula presented]

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200.

Is the open approach superior to the laparoscopic hernia repair in children? A retrospective comparative study.
Al-Taher R.N., Khrais I.A., Alma'aitah S., Al Saiad A.A., Al-abboodi A.A., Saleh O.M., Dwekat N., Almaaitah H.W., Bello Z.M., Rashdan M.Z.
Embase
Annals of Medicine and Surgery. 71 (no pagination), 2021. Article Number: 102889. Date of Publication: November 2021.
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AN: 2015055739
Background: For many years now, inguinal hernia repair in children has been done either by the open approach or laparoscopically with laparoscopy having the edge in terms of cosmesis and postoperative pain. However, recent studies have called for a return of the open approach as it had a comparable result to laparoscopy with lesser cost. This study aims to compare the outcomes of the two approaches at our institution.
Method(s): This is a retrospective analysis of the prospectively collected data of all patients aged between 6 months and 13 years who underwent open or laparoscopic inguinal hernia repair in the period between January 2017 and July 2019 at our institution.
Result(s): 155 patients were included in the study. 100 (64.5%) underwent open inguinal repair while 55 (35.5%) were done laparoscopically. There was no significant difference in the postoperative complications between the open and laparoscopic groups (P = 0.66). The overall mean operative time for the laparoscopic group and the open group is (45.7 +/- 15.2, 45.5 +/- 15.4 min, P = 0.83) respectively. However, a subgroup analysis showed a statistical difference in the operative time in bilateral hernias favoring the laparoscopic approach, (44 +/- 13.2, 63.2 +/- 26.4 min respectively, P = 0.049). Laparoscopy was also associated with shorter times to full recovery compared to the open group (4.7 days, 7.5 days, P = 0.013). Surprisingly, there was no

difference in the cosmetic outcome between the two groups which is contrary to the published literature.
Conclusion(s): Laparoscopic inguinal hernia repair in children is a feasible and reproducible procedure. It permits the evaluation of the contralateral groin without further incisions. In our study, laparoscopy was superior in terms of operative time in bilateral hernias and the time to recovery. Finally, an added benefit to laparoscopy is that it offers more training opportunities for fellows and residents to improve their laparoscopic skills.

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201.

The effect of virtual reality on Children's anxiety, fear, and pain levels before circumcision.
Buyuk E.T., Odabasoglu E., Uzsen H., Koyun M.
Embase
Journal of Pediatric Urology. 17(4) (pp 567.e1-567.e8), 2021. Date of Publication: August 2021.
[Article]
AN: 2012049522
Background: Circumcision is one of the oldest and most frequently performed surgical interventions in many societies across the world. Boys undergoing this procedure experience anxiety and fear during the preoperative period. In addition, postoperative pain in children is reported to be associated with anxiety and fear.
Aim(s): This study aimed to examine the effects of using virtual reality (VR) intervention before circumcision on the pre-and postoperative anxiety and fear levels and postoperative pain symptoms in children.
Material(s) and Method(s): This randomized controlled experimental study included 5-10-year-old boys referred to a pediatric hospital for circumcision between June and September 2019. Randomization was performed using the randomized block design, and the subjects were divided into control (n = 38) and experimental (n = 40) groups. The data were collected using a participant information form, the children's fear scale (CFS), the children's anxiety meter scale (CAM-S), and the Wong-Baker Faces Pain Rating Scale (WBS); data were analyzed using SPSS 22.0 package program.
Result(s): Of the children included in the study, 59% were between the ages of five and six years and 78.2% had no previous hospital experience. Children in the experimental group had significantly lower mean scores of CAM-S and CFS in the pre-and postoperative periods than

those in the control group. Also, the mean postoperative WBS score was significantly lower in the experimental group than in the control group.
Discussion(s): Results of this study were similar to those reported previously that VR interventions were effective in reducing fear and anxiety in the preoperative period (Dehghan et al., 2019, Ryu et al., 2018; Olbrechta et al., 2020). Previous studies have shown that patient immersion in interactive VR provides a distraction from painful stimuli and can decrease an individual's perception of the pain (Pouarmand et al., 2018; Chad et al., 2018).
Conclusion(s): Distracting children using a VR intervention before circumcision decreased their anxiety and fear both before and after the surgery, and it was found that the pain symptoms were lower in the postoperative period. [Table presented]

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202.

Perioperative anesthesia care for the pediatric patient undergoing a kidney transplantation: An educational review.
Voet M., Cornelissen E.A.M., van der Jagt M.F.P., Lemson J., Malagon I.
Embase
Paediatric Anaesthesia. 31(11) (pp 1150-1160), 2021. Date of Publication: November 2021.
[Review]
AN: 2013500339
Living-donor kidney transplantation is the first choice therapy for children with end-stage renal disease and shows good long-term outcome. Etiology of renal failure, co-morbidities, and hemodynamic effects, due to donor-recipient size mismatch, differs significantly from those in adult patients. Despite the complexities related to both patient and surgery, there is a lack of evidence-based anesthesia guidelines for pediatric kidney transplantation. This educational review summarizes the pathophysiological changes to consider and suggests recommendations for perioperative anesthesia care, based on recent research papers.

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203.

Functional outcomes of pediatric laparoscopic pyeloplasty: post-operative functional recovery is superior in infants compared to older children.
Chandrasekharam V.V.S., Babu R., Arlikar J., Satyanarayana R., Murali Krishna N.
Embase
Pediatric Surgery International. 37(8) (pp 1135-1139), 2021. Date of Publication: August 2021.
[Article]
AN: 2011391904
Aim: Laparoscopic pyeloplasty (LP) is less popular and considered less successful in infants compared to older children. There are few reports analyzing the functional results of LP in relation to age of surgery. The aim of this paper is to compare the functional results of LP in infants (group 1) with children over 1 year of age (group 2).
Material(s) and Method(s): The data of all children undergoing LP between August 2016 and July 2019 were retrospectively analyzed for patient details and follow-up. Only children (n = 135) with at least 1-year follow-up and completed post-operative ultrasound and diuretic renogram were included. All children underwent pre-operative and post-operative ultrasound and diuretic renogram; pre-operative, operative and post-operative parameters were compared between both groups. Statistical analysis was done using software; Mann-Whitney U test, Student t test, and Fisher's exact test were applied.
Result(s): There were 71 infants (group 1) and 64 children > 1 year (group 2). Pre-operatively, all kidneys had SFU grade 3 or 4 HDN and 131/135 kidneys had a renal pelvic APD > 20 mm; all kidneys had unequivocal obstruction on DR. At surgery, the preferred drainage method was intra-operative antegrade placement of a JJ stent in 68 (96%) group 1 and 63 (98%) group 2 children. The remaining 4 cases (3 group 1, 1 group 2) had a nephrostomy with trans-anastomotic external stent placement, because the JJ stent could not be negotiated into the bladder. The demographic data and comparison of pre- and post-operative parameters between both groups are summarized in Tables 1 and 2, respectively. Group 1 had significantly more children with antenatal diagnosis of HDN (87% vs 56%, p = 0.0005). The 36 children with antenatal diagnosis in group 2 were initially followed expectantly; the indication for pyeloplasty was deterioration of SRF on serial DR, urinary infection, and pain, in 13, 14, and 9 children, respectively. The operating time was significantly longer in group 2 (p = 0.0001). There was no difference in the success of LP or complication rate in both groups. Group 2 had significantly more children with extrinsic obstruction (1.4% vs 17%, p = 0.001). All children underwent post-operative US and DR; a significant reduction in hydronephrosis (APD) on follow-up was noted in both groups (p = 0.0001). The mean pre-operative SRF in both groups was comparable (p = 0.088). The mean SRF in both groups improved significantly after LP; however, the mean post-operative SRF was significantly higher in group 1 when compared to group 2 (p = 0.0001). Furthermore, group 1 had significantly more kidneys demonstrating > 10% increase in SRF after LP (53% vs 26%, p = 0.0003).

Conclusion(s): The safety profile and success of LP in infants was comparable to older children. Infant LP took shorter time to perform, while older children had increased incidence of extrinsic obstruction. Infant kidneys demonstrated better functional improvement than older children after LP. These findings should encourage more surgeons to utilize LP for pyeloplasty even in infants.

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204.

Comparison of intra- and extra-corporeal laparoscopic hernia repair in children: A systematic review and pooled data-analysis.
Maat S., Dreuning K., Nordkamp S., van Gemert W., Twisk J., Visschers R., van Heurn E., Derikx J.
Embase
Journal of Pediatric Surgery. 56(9) (pp 1647-1656), 2021. Date of Publication: September 2021. [Review]
AN: 2011216734
Background: Laparoscopic surgery is increasingly used to repair paediatric inguinal hernias and can be divided into intra- or extra-corporeal closing techniques. No statement regarding the superiority of one of the two techniques can be made. This study aims to provide evidence supporting the superiority of intra- or extra-corporeal suturing technique.
Method(s): A systematic literature search was conducted using PubMed, Embase, MEDLINE, and Cochrane Library databases. Randomised controlled trials and prospective studies comparing different laparoscopic techniques were eligible for inclusion. Data were pooled using a random-effects model, comparing single-port extra-peritoneal closure to intra-peritoneal purse string suture closing. Primary outcome was recurrence rate. Secondary outcomes were duration of surgery (min), peri- and post-operative complications (i.e. injury of spermatic vessels or spermatic cord, tuba lesions, bleeding and apnoea, haematoma/scrotal oedema, hydrocele, wound infection, iatrogenic ascent of the testis and testicular atrophy), contralateral patent processus vaginalis (CPPV) rate, post-operative pain, length of hospital stay and cosmetic appearance of the wound.
Result(s): Fifteen studies (n = 3680 patients, age range 0.5-12 years, follow-up range 3-10 months) were included is this systematic review. Intra-corporeal hernia repair was performed in 738 children and extra-corporeal repair was performed in 2942 children. A pooled data analysis could only be performed for the single port extra-corporeal closing technique and the three port intra-corporeal closing technique. We found that recurrence rate was lower in the single-port extra-corporeal closing technique compared to the intra-corporeal purse suture closing technique (0.6% vs 5.5%, 95% CI 0.107 (0.024-0.477); p < 0.001). Operation time was shorter for extra-

corporeal unilateral and bilateral inguinal hernia repair compared with intra-corporeal approach, but no pooled data analysis could be performed. Due to the presence of substantial heterogeneity, it was not possible to assess other outcome measures.
Conclusion(s): Single-port extra-corporeal closure seems to result in less recurrent hernias and a shorter operative time compared to intra-corporeal purse suture closing technique. No difference regarding peri- and post-operative complications could be found and no statements regarding the length of hospital admission, post-operative pain and cosmetics could be made due to substantial heterogeneity.
Level of Evidence: Level II

PMID
33674123 [https://www.ncbi.nlm.nih.gov/pubmed/?term=33674123]
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205.

Comparison of the postoperative analgesic effects of US-guided caudal block and US-guided pudendal nerve block in circumcision.
Ozen V.
Embase
International Journal of Clinical Practice. 75(10) (no pagination), 2021. Article Number: e14366. Date of Publication: October 2021.
[Article]
AN: 2013139964
Aim: To compare the postoperative analgesic efficacy and postoperative complications of the pudendal nerve block (PNB) and caudal block (CB) with ultrasound (US).
Study Design: A prospective observational study.
Method(s): This study was included male patients aged between 4 and 12 years in the ASA I-II group and scheduled for circumcision. A low-dose CB or US-guided PNB was administered under general anaesthesia before the operation. Postoperative pain was evaluated using the Children's Hospital Eastern Ontario Pain Scale (CHEOPS) and Faces Pain Scale-Revised. Postoperative analgesic need was also noted.
Result(s): The study was completed with a total of 100 patients consisting of 50 patients who received a CB and 50 who received a PNB. Intraoperative block failure was not seen in any patient. The mean CHEOPS score (P <.001) and the 6th (P =.003) and 12th hours (P <.001) CHEOPS scores were found to be statistically significantly higher in the CB group. There were no postoperative side effects in the PNB group with a statistically significant difference compared with the CB group (P =.027).

Conclusion(s): This first prospective study in the literature shows that US-guided PNB provided a more pronounced and longer analgesic effect and resulted in less requirement for postoperative analgesics than US-guided CB.

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Publisher
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Year of Publication
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206.

Association of anesthesia type with prolonged postoperative intubation in neonates undergoing inguinal hernia repair.
Lamoshi A., Lerman J., Dughayli J., Elberson V., Towle-Miller L., Wilding G.E., Rothstein D.H.
Embase
Journal of Perinatology. 41(3) (pp 571-576), 2021. Date of Publication: March 2021.
[Article]
AN: 2005147735
Purpose: The purpose of this study is to determine factors associated with prolonged intubation after inguinal herniorrhaphy in neonates.
Method(s): Retrospective, single institution review of neonates undergoing inguinal herniorrhaphy between 2010 and 2018. Variables recorded included demographics, comorbidities, ventilation status at time of hernia repair, and anesthetic technique.
Result(s): We identified 97 neonates (median corrected gestational age 39.9 weeks, IQR 6.6). The majority (87.6%) received general anesthesia (GA); the remainder received caudal anesthesia (CA). Among the GA subjects, 25.8% remained intubated for at least 6 h after surgery, whereas none of the CA patients required intubation postoperatively ($p = 0.03$). Two risk factors associated with prolonged postoperative intubation: a history of intubation before surgery ($p = 0.04$) and a diagnosis of bronchopulmonary dysplasia ($p = 0.03$).
Conclusion(s): Neonates undergoing inguinal herniorrhaphy under GA have a greater rate of prolonged postoperative intubation compared with those undergoing CA. A history of previous intubation and bronchopulmonary dysplasia were significant risk factors for prolonged postoperative intubation.

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Publisher
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Year of Publication
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207.

Effect of implementing enhanced recovery after surgery principles in the perioperative period of pediatric inguinal hernia.
Song Y., Hu C., Yan P., Wu H., Nie H., Wang Z., Chen Y.
Embase
American Journal of Translational Research. 13(5) (pp 5540-5546), 2021. Date of Publication: 30 May 2021.
[Article]
AN: 2012368727
Objective: We aimed to investigate the effect of implementing enhanced recovery after surgery (ERAS) principles in the perioperative period of pediatric inguinal hernia (IH).
Method(s): In this prospective study, 98 children undergoing surgery for IH in our hospital were randomly divided into the control group (n=49, routine nursing) and the study group (n=49, nursing care with ERAS principles). The anesthesia recovery period, time from end of surgery to first ambulation and to first anal exhaust, length of hospital stay, mental state before and after the intervention, pain level, incidence of complications, and family satisfaction with the nursing care were compared between the two groups. The recurrence rate of IH within half a year was recorded.
Result(s): Compared with the control group, the time from the end of surgery to first ambulation and to first anal exhaust and the length of hospital stay were shorter in the study group (all P<0.05). After the nursing intervention, both groups achieved better scores in mental state and pain level, and the improvement in the study group in mental state and pain level was greater than that in the control group (all P<0.05). Compared with the control group, the study group had higher family satisfaction with the nursing care and lower incidence of complications during hospitalization (both P<0.05). During the half-year follow-up, no recurrence was observed in both groups.
Conclusion(s): The implementation of ERAS principles in the perioperative period of pediatric IH can help to relieve postoperative pain, reduce psychological discomfort, reduce the incidence of complications, and promote postoperative recovery in children.

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208.

Opioid prescribing to preteen children undergoing ambulatory surgery in the United States.
Cartmill R.S., Yang D.-Y., Walker B.J., Bradfield Y.S., Kille T.L., Su R.R., Kohler J.E.
Embase
Surgery (United States). 170(3) (pp 925-931), 2021. Date of Publication: September 2021.
[Article]
AN: 2011834601
Background: Overuse and misuse of opioids is a continuing crisis. The most common reason for children to receive opioids is postoperative pain, and they are often prescribed more than needed. The amount of opioids prescribed varies widely, even for minor ambulatory procedures. This study uses a large national sample to describe filled opioid prescriptions to preteen patients after all ambulatory surgical procedures and common standard procedures.
Method(s): We analyzed Truven Health MarketScan data for July 2012 through December 2016 to perform descriptive analyses of opioid fills by age and geographic area, change over time, second opioid fills in opioid-naive patients, and variation in the types and amount of medication prescribed for 18 common and standard procedures in otolaryngology, urology, general surgery, ophthalmology, and orthopedics.
Result(s): Over 10% of preteen children filled perioperative opioid prescriptions for ambulatory surgery in the period 2012 to 2016. The amount prescribed varied widely (median 5 days' supply, IQR 3-8, range 1-90), even for the most minor procedures, for example, frenotomy (median 4 days' supply, IQR 2-5, range 1-60). Codeine fills were common despite safety concerns. Second opioid prescriptions were filled by opioid-naive patients after almost all procedures studied. The rate of prescribing declined significantly over time and varied substantially by age and across census regions.
Conclusion(s): We identified opioid prescribing outside of the norms of standard practice in all of the specialties studied. Standardizing perioperative opioid prescribing and developing guidelines on appropriate prescribing for children may reduce the opioids available for misuse and diversion.

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Publisher
Mosby Inc.
Year of Publication

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209.

Predictive factors of post-laparoscopic inguinal hernia acute and chronic pain: prospective follow-up of 807 patients from a single experienced surgeon.
Lo C.-W., Chen Y.-T., Jaw F.-S., Yu C.-C., Tsai Y.-C.
Embase
Surgical Endoscopy. 35(1) (pp 148-158), 2021. Date of Publication: January 2021.
[Article]
AN: 2004086903
Introduction: Convalescence after hernia repair is one of the main focuses for hernia surgeons. We analyzed our prospectively collected data to identify possible predictive factors for post-operative acute and chronic pain.
Material(s) and Method(s): We prospectively collected the demographic data and peri-operative findings. Post-operative acute pain was evaluated with Visual Analog Pain Scale. The chronic pain (pain persists for > 6 months since operation) was also recorded.
Result(s): From June 2008 to August 2018, there were 807 patients with 1029 sites of inguinal hernia enrolled in our analysis. Pain before operation was associated with the severity of acute pain on OP (operation) day, POD 1 (post-operative day 1), and POD 7 (post-operative day 7). Younger patients had significantly higher post-operative acute pain on OP day, POD 1, and POD 7. The staple mesh fixation method resulted in a higher pain score at OP day and POD 1. The predictive factors for chronic pain were sex (female), young age (< 65 years), having no past history of hypertension, pain before operation, and mesh material.
Conclusion(s): A younger age and inguinal pain before operation were the main predictive factors for higher post-operative pain. Younger patients, females, having inguinal pain before surgery, and using heavy weight mesh have a higher risk of chronic pain.

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Publisher
Springer
Year of Publication
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210.

Pathway for enhanced recovery after spinal surgery-a systematic review of evidence for use of individual components.
Licina A., Silvers A., Laughlin H., Russell J., Wan C.
Embase
BMC Anesthesiology. 21(1) (no pagination), 2021. Article Number: 74. Date of Publication: December 2021.
[Article]
AN: 2010744076
Background: Enhanced recovery in spinal surgery (ERSS) has shown promising improvements in clinical and economical outcomes. We have proposed an ERSS pathway based on available evidence. We aimed to delineate the clinical efficacy of individual pathway components in ERSS through a systematic narrative review.
Method(s): We included systematic reviews and meta-analysis, randomized controlled trials, non-randomized controlled studies, and observational studies in adults and pediatric patients evaluating any one of the 22 pre-defined components. Our primary outcomes included all-cause mortality, morbidity outcomes (e.g., pulmonary, cardiac, renal, surgical complications), patient-reported outcomes and experiences (e.g., pain, quality of care experience), and health services outcomes (e.g., length of stay and costs). Following databases (1990 onwards) were searched: MEDLINE, EMBASE, and Cochrane Library (Cochrane Database of Systematic Reviews and CENTRAL). Two authors screened the citations, full-text articles, and extracted data. A narrative synthesis was provided. We constructed Evidence Profile (EP) tables for each component of the pathway, where appropriate information was available. Due to clinical and methodological heterogeneity, we did not conduct a meta-analyses. GRADE system was used to classify confidence in cumulative evidence for each component of the pathway.
Result(s): We identified 5423 relevant studies excluding duplicates as relating to the 22 pre-defined components of enhanced recovery in spinal surgery. We included 664 studies in the systematic review. We identified specific evidence within the context of spinal surgery for 14/22 proposed components. Evidence was summarized in EP tables where suitable. We performed thematic synthesis without EP for 6/22 elements. We identified appropriate societal guidelines for the remainder of the components.
Conclusion(s): We identified the following components with high quality of evidence as per GRADE system: pre-emptive analgesia, peri-operative blood conservation (antifibrinolytic use), surgical site preparation and antibiotic prophylaxis. There was moderate level of evidence for implementation of prehabilitation, minimally invasive surgery, multimodal perioperative analgesia, intravenous lignocaine and ketamine use as well as early mobilization. This review allows for the first formalized evidence-based unified protocol in the field of ERSS. Further studies validating the multimodal ERSS framework are essential to guide the future evolution of care in patients undergoing spinal surgery.

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211.

A randomized parallel design trial of the efficacy and safety of tranexamic acid, dexmedetomidine and nitroglycerin in controlling intraoperative bleeding and improving surgical field quality during septorhinoplasty under general anesthesia.
Modir H., Moshiri E., Naseri N., Faraji F., Almasi-Hashiani A.
Embase
Medical Gas Research. 11(4) (pp 131-137), 2021. Date of Publication: 01 Oct 2021.
[Article]
AN: 635435636
In this blinded clinical trial, we attempted to compare the efficacy and safety of administering tranexamic acid, dexmedetomidine and nitroglycerin in preventing intraoperative bleeding and improving the quality of the surgical field during septorhinoplasty under general anesthesia. A total of 105 patients scheduled for septorhinoplasty were enrolled and randomly assigned into three groups based on the balanced-block randomization method. First group received 1 mug/kg intravenous injection dexmedetomidine, second group received 10 mg/kg intravenous injection tranexamic acid and third group received 0.5 mug/kg nitroglycerin, intravenously. The study sample was composed of 105 participants with the total mean age of 25.85 +/- 6.52 years, and 59.05% of participants were female and the mean of body mass index was 24.34 +/- 2.57 kg/m2. The results showed that there was no statistically significant difference in terms of arterial oxygen saturation, mean arterial pressure, heart rate, bleeding rate, duration of surgery, and surgeon satisfaction among the three groups; however, there was a significant difference in the extubation time, recovery time and the dose of administered propofol among the three groups. Dexmedetomidine reduced the dose of administered propofol while increasing the extubation time and recovery time. In the tranexamic acid group compared with the other two groups, the recovery time was shorter. However, all the three drugs could reduce intraoperative bleeding and lead to surgeon satisfaction. It can be concluded that all these three drugs can be utilized to control bleeding and improve the quality of the surgical field but the ultimate decision lies with the anesthesiologist's judgment and the conditions of the patient. The study protocol was registered in the Iranian Registry of Clinical Trials (registration No. IRCT20141209020258N121) on September 24, 2019 and it was ethically approved by the Ethical Committee of Arak University of Medical Sciences (approval No. IR.ARAKMU.REC.1397.355) on February 24, 2019. Modir Hesameddin 1 Departments of Anesthesiology and Critical Care, Arak University of Medical Sciences, Arak Moshiri Esmail 2 Departments of Anesthesiology and Critical Care, Arak University of Medical Sciences, Arak Naseri Narges 3 Department of Otorhinolaryngology, Arak University of Medical Sciences, Arak Faraji Fatemeh 4 Students Research Committee, Arak University of Medical Sciences, Arak Almasi-Hashiani Amir 5 Department of Epidemiology, School of Health, Arak University of Medical Sciences, Arak H1. Ofo E, Singh A, Marais J. Steroids in rhinoplasty: a survey of current UK otolaryngologists' practice. J Laryngol Otol. 2006;120:108-112. Blackwell KE, Ross DA, Kapur P, Calcaterra TC. Propofol for maintenance of general anesthesia: a technique to limit blood loss during endoscopic sinus surgery. Am J Otolaryngol. 1993;14:262-266. Brull R, Macfarlane AJR, Chan VWS. Spinal, epidural and caudal anesthesia. In: Miller R, ed. Miller's Anesthesia. Churchill Livingstone: Elsvier; 2015:1684-1720. Ducloy-Bouthors AS, Jude B, Duhamel A, et al. High-dose tranexamic acid reduces blood loss in postpartum haemorrhage. Crit Care. 2011;15:R117. Taksaudom N, Siwachat S, Tantraworasin A. Additional effects of topical tranexamic acid in on-pump cardiac surgery. Asian Cardiovasc Thorac Ann. 2017;25:24-30. Kumsar S, Dirim A, Toksoz S, Saglam HS, Adsan O. Tranexamic acid decreases blood loss during transurethral resection of the prostate (TUR -P). Cent European J Urol. 2011;64:156-158. Dobrovolsky AB, Titaeva EV. The fibrinolysis system: regulation of activity and physiologic functions of its main components. Biochemistry (Mosc). 2002;67:99-108.

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Clinical Trial Number
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Year of Publication
2021

212.

Continent Cutaneous Catheterizable Channels in Pediatric Patients: A Decade of Experience with Open and Robotic Approaches in a Single Center.
Galansky L., Andolfi C., Adamic B., Gundeti M.S.
Embase
European Urology. 79(6) (pp 866-878), 2021. Date of Publication: June 2021.
[Article]
AN: 2007621841
Background: To allow patients with bladder and bowel dysfunctions to achieve social continence, continent catheterizable channels (CCCs) are effective alternatives to intermittent self-catheterization and enema.
Objective(s): We aimed to describe our progressive advancement from open to robotic construction of CCCs, reporting outcomes and comparing the two approaches. Design, setting, and participants: We retrospectively reviewed electronic medical records of pediatric patients who underwent construction of CCCs between 2008 and 2019. The inclusion criteria were age <=18 yr, and CCCs with or without bladder augmentation or bladder neck surgery. We compared open versus robotic approaches for demographics, and intra- and postoperative outcomes; operative time was calculated as incision-to-closure time. Surgical procedure: Channels performed were appendicovesicostomy (APV), Monti with tapered ileum, and antegrade colonic enema (ACE). A Monti channel with tapered ileum was preferred to a spiral Monti or double Monti, as it has more robust blood supply and it was performed only with an open approach. Measurements: The primary outcome was success rate, defined as postoperative stomal continence. Stomal incontinence was defined as the presence of urine leakage noted by caregivers or patients and confirmed by the surgeon. Secondary outcomes were stomal stenosis (supra- and subfascial), incontinence, need for surgical revision, and surgical site infection. Results and limitations: A total of 69 patients were included in the study, with 35 open and 34 robotic procedures. The robotic approach showed a significant decrease in length of hospital stay (LOS) compared with the open approach. Six primary subfascial revisions were performed in five patients--three Monti, two ACE, and one APV. Continence rates were 91.4% and 91.2% for open and robotic approaches, respectively.
Conclusion(s): Robotic surgery for CCCs showed acceptable postoperative functional outcomes and complication rates, which are comparable with those of the traditional open approach. Additionally, due to its minimally invasive nature, it offers advantages such as decreased postoperative pain, LOS, and time to full diet, and better cosmesis.

Patient Summary: Robotic surgery for continent catheterizable channels showed acceptable postoperative functional outcomes and complication rates, which are comparable with those of the traditional open approach.

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32868139 [https://www.ncbi.nlm.nih.gov/pubmed/?term=32868139]
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Publisher
Elsevier B.V.
Year of Publication
2021

213.

The association between caudal block and urethroplasty complications of distal tubularized incised plate repair: Experience from a South China National Children's Medical Center.
Zhang J., Zhu S., Zhang L., Fu W., Hu J., Zhang Z., Jia W.
Embase
Translational Andrology and Urology. 10(5) (pp 2084-2090), 2021. Date of Publication: May 2021.
[Article]
AN: 2012226811
Background: The effect of caudal block (CB) on the incidence of urethroplasty complications in hypospadias repair remains controversial. The evidence is conflicting, and some confounding bias issues need to be addressed. We sought to study a more homogenous group of distal hypospadias patients undergoing primary tubularized incised plate (TIP) repair by a senior pediatric urology surgeon in the past 2 years to examine the relationship between urethroplasty complications and the use of CB.
Method(s): We reviewed our database to identify consecutive patients who had undergone hypospadias repairs by a senior director surgeon at our Center between January 2018 and November 2020. To be eligible to participate in the study, patients had to meet the following inclusion criteria: (I) have distal hypospadias; (II) have undergone a primary TIP repair; and (III) have attended follow-up appointments for a minimum period of 6 months. The primary outcome was the development of urethroplasty complications during the follow-up period. The principal variable of interest was whether or not CB was used perioperatively. The patients were categorized into a CB group (general anesthesia combined with CB) or a control group (general anesthesia only). Other potential risk factors were analyzed, including patient age at operation, patient weight, glans width, and the length of the urethral plate defect.
Result(s): Thirty (12.2%) of the distal patients developed postoperative surgical complications. The postoperative surgical complication rates were similar between the different anesthesia groups. Weight, the length of the urethral plate length, and glans width did not contribute to the risk. Age was the only independent risk factor for postoperative surgical complications, and the complication rates increased in older patients.
Conclusion(s): Our data from consecutive TIP repairs in distal hypospadias patients indicated no association between the use of CB anesthesia and the postoperative urethroplasty complication rate. Patients who were older in age when they underwent surgery had a higher risk of complications.

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Publisher
AME Publishing Company
Year of Publication
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214.

Efficacy and safety of caudal dexmedetomidine in pediatric infra-umbilical surgery: A meta-analysis and trial-sequential analysis of randomized controlled trials.
Shah U.J., Nguyen D., Karuppiaah N., Martin J., Sehmbi H.
Embase
Regional Anesthesia and Pain Medicine. 46(5) (pp 422-432), 2021. Date of Publication: 01 May 2021.
[Review]
AN: 633980608
Background Dexmedetomidine is used as a local-anesthetics adjuvant in caudal block to prolong analgesia in pediatric infra-umbilical surgery. Objective We evaluated the analgesic efficacy and safety of the addition of caudal dexmedetomidine to local anesthetics (vs local anesthetics alone) in pediatric infra-umbilical surgery. Evidence review We searched 10 databases for randomized controlled trials (RCTs) of pediatric patients undergoing infra-umbilical surgery, comparing caudal block with and without dexmedetomidine as local anesthetic adjuvant. We performed a frequentist random-effects meta-analysis (R statistical package). We analyzed continuous outcomes as a ratio of means (ROM) and dichotomous data as relative risk (RR), along with 95% CI. We included 19 RCTs (n=1190 pediatric patients) in the meta-analysis. The primary outcome was duration of analgesia (defined as a the time from caudal injection to the time at which the study-specific pain score was greater than a cut-off threshold'). Findings Data from 19 included RCTs (n=1190) suggested that compared with control (mean duration 346 min), the addition of caudal dexmedetomidine significantly prolonged the duration of analgesia (ratio of means 2.14, 95% CI 1.83 to 2.49, p<0.001; a moderate' evidence). Trial-sequential analysis showed adequate a information size' for the primary outcome. Caudal dexmedetomidine also reduced the number of analgesic administrations (a low' evidence), total acetaminophen dose (a moderate' evidence) and the risk of emergence delirium (a moderate' evidence). There were no significant differences in adverse effects such as hypotension, bradycardia, post-operative nausea and vomiting, urinary retention and respiratory depression. Conclusions Our results suggest that the addition of dexmedetomidine to local anesthetic in caudal block significantly improves the duration of analgesia and reduces the analgesic requirements, while maintaining a similar risk-profile compared with local anesthetic alone. Further data on neurological safety are needed.

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215.

Perioperative liberal versus restrictive fluid strategies and postoperative outcomes: a systematic review and metanalysis on randomised-controlled trials in major abdominal elective surgery.
Messina A., Robba C., Calabro L., Zambelli D., Iannuzzi F., Molinari E., Scarano S., Battaglini D., Baggiani M., De Mattei G., Saderi L., Sotgiu G., Pelosi P., Cecconi M.
Embase
Critical Care. 25(1) (no pagination), 2021. Article Number: 205. Date of Publication: December 2021.
[Article]
AN: 2012346800
Background: Postoperative complications impact on early and long-term patients' outcome. Appropriate perioperative fluid management is pivotal in this context; however, the most effective perioperative fluid management is still unclear. The enhanced recovery after surgery pathways recommend a perioperative zero-balance, whereas recent findings suggest a more liberal approach could be beneficial. We conducted this trial to address the impact of restrictive vs. liberal fluid approaches on overall postoperative complications and mortality.
Method(s): Systematic review and meta-analysis, including randomised controlled trials (RCTs). We performed a systematic literature search using MEDLINE (via Ovid), EMBASE (via Ovid) and the Cochrane Controlled Clinical trials register databases, published from 1 January 2000 to 31 December 2019. We included RCTs enrolling adult patients undergoing elective abdominal surgery and comparing the use of restrictive/liberal approaches enrolling at least 15 patients in each subgroup. Studies involving cardiac, non-elective surgery, paediatric or obstetric surgeries were excluded.
Result(s): After full-text examination, the metanalysis finally included 18 studies and 5567 patients randomised to restrictive (2786 patients; 50.0%) or liberal approaches (2780 patients; 50.0%). We found no difference in the occurrence of severe postoperative complications between restrictive and liberal subgroups [risk difference (95% CI) = 0.009 (- 0.02; 0.04); p value = 0.62; I2 (95% CI) = 38.6% (0-66.9%)]. This result was confirmed also in the subgroup of five studies having a low overall risk of bias. The liberal approach was associated with lower overall renal major events, as compared to the restrictive [risk difference (95% CI) = 0.06 (0.02-0.09); p value = 0.001]. We found no difference in either early (p value = 0.33) or late (p value = 0.22) postoperative mortality between restrictive and liberal subgroups
Conclusion(s): In major abdominal elective surgery perioperative, the choice between liberal or restrictive approach did not affect overall major postoperative complications or mortality. In a subgroup analysis, a liberal as compared to a restrictive perioperative fluid policy was associated with lower overall complication renal major events, as compared to the restrictive. Trial Registration: CRD42020218059; Registration: February 2020, https://www.crd.york.ac.uk/prospero/display_record.php?RecordID=218059.

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216.

Outcome difference of inguinal mesh hernioplasty using postoperative antibiotics versus no use of antibiotics.
Fazal M.I., Hassan M., Sandhu M.F., Hamid A., Ali F., Hanif A., Batool T., Naseem M.
Embase
Pakistan Journal of Medical and Health Sciences. 15(1) (pp 167-169), 2021. Date of Publication: January 2021.
[Article]
AN: 2011524509
Background: General surgeons commonly perform inguinal hernioplasty with possible complications of surgical site infections in hospitals. This infection at surgical site can be prevented by usage of adequate and proper aseptic measures as well as utilizing prophylactic antibiotics.
Aim(s): To compare outcome difference of inguinal mesh Hernioplasty using postoperative antibiotics vs. no use of antibiotics. Methodology: This study was done at in North Surgical Ward, Mayo Hospital Lahore in time of six months. A total of 210 patients suffering from inguinal hernia were taken using consecutive non-probability sampling. Randomization of patients was ensured using lottery methods and patients were divided into into antibiotic group called Group A (n=105) and no antibiotic group Group B (n=105) groups. Using the method of pull in envelope randomization was carried out upon arrival of patients in operating ward. After assuring the aseptic procedures, standard procedure of mesh Hernioplasty was carried out and Group A was administered with oral cephradine both postoperatively and preoperatively for 03 days post discharge from hospital while for group B administration of preoperative antibiotic was carried out.
Result(s): The average age of subjects in group A was reported as 36.69+/-14.44 years and in control group it was reported as 43.17+/-17.36 years. The average hospital stay duration was

reported to be significantly lower for Group A was 1.89+/-0.9 and for control group it was 3.62 +/-1.04, p-value<0.0001. In group A 10(9.5%) patients were reported to have infection at surgical site and in Group B the infection at surgical site was significantly higher i.e. 24.8%, p-value 0.003. Conclusion(s): In conclusion, this study suggests rate for infection at post-operative surgical site was significantly higher statistically in control group when compared to group A. Hence antibiotics usage, post-operatively, is concluded to be more effective for controlling infection at surgical site post-operatively in patients undergoing inguinal mesh hernioplasty.

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217.

Healthcare utilization associated with adherence to antibiotics for abdominal surgeries in Japan: Cross-sectional analysis of administrative database.
Imai S., Kiyomi A., Sugiura M., Fushimi K.
Embase
International Journal for Quality in Health Care. 33(1) (no pagination), 2021. Article Number: mzab017. Date of Publication: 2021.
[Article]
AN: 2012858049
Background: Since patients receiving surgery may experience surgical site infections, therapeutic guidelines for reducing hospitalization time and cost include appropriate antibiotic use. However, the association between adherence to therapeutic guidelines and healthcare utilization is currently unclear.
Objective(s): This study aimed to confirm the positive association between the adherence to guidelines of antibiotic therapy and a reduction in the length of stay and cost of hospitalization, especially considering the high infection rates in abdominal surgery.
Method(s): This cross-sectional study used administrative data (diagnosis procedure combination data) collected using the case-mix system implemented in acute-care hospitals in Japan. We assessed the length of hospital stay and cost of hospitalization for patients who received prophylactic antibiotic for abdominal surgeries consistent with therapeutic guidelines. The data of patients aged 15 years or older who received appendectomy, laparoscopic cholecystectomy or inguinal hernia repair were extracted. The appropriateness of antibiotic prophylaxis was evaluated in terms of the Japanese guidelines for antibiotic selection and treatment duration. To assess the mean difference in antibiotic costs and length of stay, we performed the propensity score matching by confounding factors. Furthermore, we assessed the progress in healthcare utilization of this therapy over a decade.
Result(s): Of the 302 233 patients who received single general surgery from April 2014 to March 2016, 198 885 were eligible for analysis after applying the exclusion criteria (143 975 in the adherence and 54 910 in the non-adherence group). Each group comprised 48 439 patients after propensity score matching. Inappropriate antibiotic selection and duration were observed in 9294 (9.8%) and 687 (0.7%) of inguinal hernia repairs, 6431 (25.3%) and 311 (1.2%) of appendectomies and 38 134 (48.5%) and 391 (0.5%) of laparoscopic cholecystectomy cases, respectively. After propensity score matching by operation type, average hospitalization length

(6.5 [SD 3.8] and 7.3 [SD 4.8] days) and costs (536 000 [SD 167 000] JPY and 573 000 [SD 213 000] JPY) differed significantly between adherence and non-adherence groups.
Conclusion(s): The results revealed that unnecessary healthcare utilization was associated with failure to adhere to therapeutic guidelines for prophylactic antibiotic therapy in elective general surgeries. We concluded that the progress of reduction in length of hospitalization over the decade was successful. Notably, adherence to treatment duration was better than that was 10 years ago. In this decade, administrators in hospitals have attempted to reduce the duration of hospitalization by developing various clinical pathways for surgical procedures and quality indicators. However, 15 877 patients (8.7%) were prescribed oral antibiotics the day after surgery. These observations should be evaluated further.

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218.

Opioid prescribing patterns following implementation of Enhanced Recovery After Surgery (ERAS) protocol in pediatric patients undergoing lower tract urologic reconstruction.
Hecht S., Halstead N.V., Boxley P., Brockel M.A., Rove K.O.
Embase
Journal of Pediatric Urology. 17(1) (pp 84.e1-84.e8), 2021. Date of Publication: February 2021.
[Article]
AN: 2010079466
Background: With increasing awareness of the opioid epidemic, there is a push for providers to minimize opioid prescriptions. Enhanced Recovery After Surgery (ERAS) is a comprehensive multidisciplinary perioperative protocol that includes minimization of opioid analgesia in favor of non-opioid alternatives and regional analgesia. While ERAS protocols have consistently been shown to decrease inpatient opioid utilization, the impact on opioid prescribing practices and use after discharge in pediatric surgical patients is unclear.
Objective(s): This study aims to assess the impact of an ERAS protocol on outpatient opioid prescription patterns after pediatric lower urinary tract reconstructive surgery. We hypothesize that implementation of an ERAS protocol leads to fewer outpatient opioid prescriptions as measured by number and total quantity of oral morphine milligram equivalents by body weight per patient.
Method(s): All patients who underwent bladder augmentation, creation of a continent catheterizable channel, bladder neck reconstruction or closure, or revision of prior reconstructive procedures at our tertiary care facility between 2011 and 2017 were reviewed. Patients were

divided into pre-ERAS and ERAS cohorts based on whether surgery occurred before or after ERAS implementation. The Colorado Prescription Drug Monitoring Program was used to track filling of postoperative opioid prescriptions for patients covered by the database.
Result(s): A total of 167 urologic reconstructive surgeries were analyzed, including 83 before ERAS and 84 after ERAS implementation. Patients in the ERAS cohort received and filled more outpatient opioid prescriptions at time of discharge (82.6% historical vs 93.9% ERAS, p = 0.015; 76.1% vs 57.9%, p = 0.012). There were no differences in prescription total morphine milligram equivalents normalized to body mass, total days supplied, or 90-day opioid prescription refill rates.
Discussion(s): We found an unexpected increase in postoperative outpatient opioid prescriptions following implementation of an ERAS protocol for lower urinary tract reconstructive surgery. Possible reasons include worry about pain crisis at home in the setting of decreased hospital length of stay in the ERAS cohort or generalized upward drift in opioid prescribing patterns over time. ERAS protocols in other subspecialties reveal mixed findings but consistently suggest standardization of outpatient opioid prescribing patterns leads to a decrease in opioid prescriptions.
Conclusion(s): Patients received more, not fewer, outpatient opioid prescriptions following major urologic reconstructive surgery after implementation of an ERAS protocol. Purposeful efforts should be made to standardize opioid prescriptions at discharge based on meaningful clinical criteria.[Formula presented]

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219.

Effect of continuous antibiotic prophylaxis in children with postoperative JJ stents: A prospective randomized study.
Akinci A., Kubilay E., Solak V.T., Karaburun M.C., Baklaci C.U., Aydog E., Soygur Y.T., Burgu B.
Embase
Journal of Pediatric Urology. 17(1) (pp 89-94), 2021. Date of Publication: February 2021.
[Article]
AN: 2008369154
Objective: We aimed to investigate the effectiveness of continuous antibiotic prophylaxis (CAP) in patients with JJ stent and tried to identify the group that could specifically benefit from CAP by a prospective randomized study.

Method(s): A prospective, randomized, controlled, non-blind, non-placebo study was performed in a single center.A total of 105 patients who underwent surgery with JJ stent (PNL, URS, pyeloplasty, UNC) were randomized into two groups. 53 patients in Group A received CAP and 52 patients in Group B were controlled without CAP, during the presence of a JJ stent. Patients with external stents, nephrostomy tubes, indwelling long-term urethral catheters were excluded. History of preoperative use of CAP and lower urinary tract symptoms were noted. Trimethoprim/sulfamethoxazole (TMP/SMX) was used as the initial choice of antibiotic however if there was a history of antibiotic resistance in previous urinary cultures, Nitrofurantoin was administrated. Urinary cultures were obtained before surgery and before stent extraction. JJ stents were sent to culture. Symptomatic febrile urinary tract infections with positive urine cultures (105 CFU on a clean catch or 103with urethral catheterization) were compared between groups.
Discussion(s): Our study has some limitations; the study is the single-center, we did not follow-up of patients in terms of scar, there were low number of uncircumcised patients, multiple types of surgical procedures were performed. JJ stent is a frequently used instrument in children. Unfortunately, any randomized prospective on antibiotics administration while using a JJ stent is not available in the current literature. We hope our research will contribute to the existing literature and cause a significant change in clinical practice.
Result(s): The mean age among all patients was 4.8 +/- 3.9 years. The mean length of time jj stents stayed inside was 16.34 +/- 6.45 days in group A and 15.29 +/- 7.71 days in group B. The incidence of febrile urinary tract infections with CAP was significantly reduced (3.8% vs. 19% (p 0.015)). Multivariate regression analysis revealed that a positive history for preop febrile urinary tract infections and/or LUTS has a significantly higher association with the incidence of febrile urinary tract infecitons.
Conclusion(s): CAP in the presence of JJ stents reduced the incidence of febrile urinary tract infections in a short period, especially in children with the previous history of febrile urinary tract infections and lower urinary tract symptoms. [Table presented]

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220.

Lich-Gregoir vesico-ureteral reimplantation for duplex kidney anomalies in the pediatric population: a retrospective cohort study between laparoscopic and open surgery.
Zhu X., Wang J., Zhu H., Huang L., Chen C., Wang L., Dong J., Ge Z., Ma G., Guo Y., Huang S.
Embase
Translational Pediatrics. 10(1) (no pagination), 2021. Date of Publication: January 2021.
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AN: 2011035699

Background: The aim of the study is to compare the Lich-Gregoir vesico-ureteral reimplantation in laparoscopy and open surgery.
Method(s): In this case control study, we enrolled pediatric patients who were diagnosed with unilateral duplex kidney and had underwent surgical treatment. The surgical treatments were either conventional open surgery or laparoscopic surgery. We collected the basic demographic data and extracted the operative-related statistics such as operation time, blood loss, length of hospital stay, pain level, and post-operative complications. The two groups were compared using Student's t-test.
Result(s): A total of 90 subjects were enrolled. Of the enrolled subjects, 35 underwent open surgery and 55 underwent laparoscopic surgery. There were no observable difference in the basic demographics between two groups (P>0.05). The duration of operation in laparoscopic surgery group was significantly shorter than in the open surgery group (95.60+/-5.25 vs. 108.70+/-3.12 min, P=0.040). It was also noted that the amount of blood loss, length of hospital stay, drainage level, and the mean visual analog scale in laparoscopic group were significantly lower (P<0.05). The total incidence of complications in the laparoscopic and open surgery groups were 16.36% and 37.14%, respectively.
Conclusion(s): Laparoscopic Lich-Gregoir vesico-ureteral reimplantation surgery management can be successful, clinically effective, and safe for pediatric population with functional duplex kidneys, and is better than the open surgery techniques.

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221.

A snapshot of the prescribing patterns and off-label use of gabapentinoid agents in tertiary care: a retrospective, cross-sectional, descriptive study.
Prior F.H.
Embase
Journal of Pharmacy Practice and Research. 51(2) (pp 121-128), 2021. Date of Publication: April 2021.
[Article]
AN: 2010181940
Background: Prescribing of gabapentinoids has increased worldwide and off-label use is well-described. Patients may be at risk of harm from inappropriate use. Prescribing patterns in tertiary care have not been described in the Australian setting.
Aim(s): The aim of this study was to assess the prescribing patterns of gabapentinoids across a Local Health District in New South Wales, Australia.
Method(s): Clinical and prescribing records over a 48-h period were reviewed. Patient demographics, renal function and concurrent opioid use were recorded. Dosing details and the indications for treatment were analysed.
Result(s): Almost 40% of patients were prescribed concomitant opioid therapy, half of which were in the postoperative setting, an indication for which there is little evidence. Appropriate dose reductions were made in the majority of patients with renal impairment. Methods used for ceasing

therapy were not in accordance with best practice. Indications for use were difficult to ascertain from medical records. However, only approximately half of usage of both agents appeared to be for approved indications.
Conclusion(s): Prescribing of gabapentinoids could be improved. Although dosages are largely in accordance with recommended dosages for renal impairment, there is significant concern with concurrent use of opioids and use for non-approved indications, many of which lack clinical evidence. Further investigation into prescribing habits in the postoperative setting is warranted. There is a potential role for increased education and intervention to optimise use.

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222.

Opioid prescribing is excessive and variable after pediatric ambulatory urologic surgery.
Corona L.E., Roth E.B., Thao A., Lin M., Lee T., Harbaugh C., Gadepalli S., Waljee J., Streur C.S.
Embase
Journal of Pediatric Urology. 17(2) (pp 259.e1-259.e6), 2021. Date of Publication: April 2021.
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AN: 2010819948
Background: Acute pain after surgery is one of the most frequent indications for opioid prescribing in children. Opioids are often not stored or disposed of safely after their use, placing children and others in the home at risk for accidental ingestion or intentional misuse. We currently lack evidence-based guidelines for post-operative pain management after common ambulatory pediatric urologic procedures. Thus, each surgeon must decide if and how much opioid to prescribe based on his/her own assumptions of perceived post-operative pain.
Objective(s): As part of an effort to establish opioid prescribing guidelines across two academic centers, the objectives of this study were to evaluate current variability in pediatric urologists' opioid prescribing factors and identify patients at greatest risk of being prescribed high doses of opioids after common ambulatory pediatric urologic procedures.
Method(s): We retrospectively evaluated post-operative opioid prescribing patterns after common ambulatory pediatric urology procedures (circumcision, orchiopexy, and hernia/hydrocele) at two major children's hospitals. Specifically, we evaluated if and how much opioid was prescribed for all children (18 years or younger) between 2016 and 2017. Bivariate analysis was performed using Kruskal-Wallis Test and Wilcoxon Rank Sum. Multivariable logistic regression was performed to determine patient, surgeon, and procedural factors that predicted the prescription of a high dose of opioids (greater than the median number of doses prescribed for that procedure).
Result(s): Over the two-year period, 811 circumcisions and 883 inguinal surgeries (inguinal orchiopexy and hernia/hydrocele) were performed. 94% of patients undergoing circumcision and 97% of those undergoing inguinal surgery were prescribed opioid analgesia. The median number of doses prescribed for circumcision was 20; for inguinal surgeries, 23.75% of patients received 15 opioid doses or more. Patients ages 0-2 years, who represented the largest age group (41% of all patients), received significantly more opioid doses than all other age groups, followed by

those >10 years (p < 0.01). There was significant variation in opioid prescribing patterns by provider (p < 0.01) (Figure 1) On multivariable logistic regression, younger age, pill form, and earlier year were all associated with a greater number of opioid doses prescribed for all surgeries. Conclusion(s): Across two institutions without a formal post-operative opioid prescribing policy for ambulatory pediatric urologic procedures, we observed considerable variability in provider prescribing patterns, with nearly all patients receiving an opioid, and those 0-2 years receiving the highest number of doses. This highlights the need for evidence-based guidelines for post-operative pain management after ambulatory pediatric urologic surgeries.

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223.

Clinical outcomes after increasing bladder outlet resistance without augmentation cystoplasty in neurogenic bladder.
Weaver J.K., Coplen D.E., Knight B.A., Koenig J.S., Vricella G.J., Vetter J., Traxel E.J., Austin P.F.
Embase
Journal of Pediatric Urology. 17(2) (pp 235.e1-235.e7), 2021. Date of Publication: April 2021. [Article]
AN: 2010403662
Introduction: Patients with neurogenic bladder (NGB) and urinary incontinence (UI) due to low bladder outlet resistance may require bladder neck procedures (BNPs) to achieve continence. These patients may also have reduced bladder capacity and or elevated detrusor storage pressures that require augmentation cystoplasty (AC). AC is not without complications that include risks for bladder rupture, urolithiasis, urinary tract infections and metabolic issues. Avoidance of AC would be helpful in patients with neurogenic urinary incontinence that have safe bladder parameters in the setting of low bladder outlet resistance.
Objective(s): To determine if pre-operative urodynamics could select children with NGBs and UI for isolated BNPs without AC. Additionally we sought to determine the safety of BNPs without AC and future need of AC with long-term follow-up. Study design: This is an IRB-approved retrospective analysis of all patients undergoing BNPs for management of neurogenic UI over a 17-year period. We separated these BNP patients into two groups: No AC + BNP (Group 1) vs. AC + BNP (Group 2). Our primary analyses focused on postoperative outcomes for patients in Group 1. Outcomes assessed included additional surgical procedures, urodynamic changes, development of CKD, new hydronephrosis (HDN) and vesicoureteral reflux (VUR). Secondary

analysis included the timeline for the development of any bladder deterioration that necessitated AC in Group 1.
Result(s): 93 patients underwent BNP at a mean age of 10.8 years. Thirty did not have AC at the time of surgery (Group 1). These children had larger ($p < 0.001$) and more compliant ($p < 0.001$) bladders than Group 2 having simultaneous augmentation. At 6 years mean follow-up in Group 1 patients, three developed new reflux and three had new hydronephrosis. Nine (30%) had additional continence procedures. Twelve required (40%) AC at a mean of 23 months after the initial BNP. No patients had AC after 5 years. Detrusor end filling pressure increased 14.8 cm H_2O ($p = 0.028$) and expected bladder capacity decreased 26.1% ($p = 0.005$) after isolated BNP.
Discussion(s): We found that from our cohort of patients who had normal bladder compliance and normal/near normal expected capacity preoperatively 40% required subsequent AC. We were unable to find pre-operative clinical parameters which predicted failure or conversion to AC. We found that 43.3% of our BNP without AC patients had no subsequent invasive procedures with mean 6-year follow-up. We found that none of our patients developed any degree of CKD. Finally, we found that the majority of patients that converted to AC after their BNP did so within the first 2 years after their initial BNP and no patients required augmentation 5 years post their initial BNP. This data validates that these patients require very strict follow up, particularly in the first 5 years after surgery.
Conclusion(s): BNP without AC is safe in only a few selected patients with NGB. Despite preoperative selection, there are significant changes in bladder dynamics and 40% required subsequent augmentation. Bladder deterioration occurs early and generally in the first 2 years. Since there are no apparent reliable pre-operative variables predicting the need for subsequent AC, parents should be counseled regarding vigilant post-operative follow-up.[Formula presented]

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224.

Comparative analysis of perioperative prophylactic antibiotics in prevention of surgical site infections in stented, distal hypospadias repair.
Canon S.J., Smith J.C., Sullivan E., Patel A., Zamilpa I.
Embase
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Purpose: There is limited evidence that prophylactic antibiotics prevent surgical site infection in stented, distal hypospadias repair. Our hypothesis is that the use of prophylactic antibiotics does not affect the rate of surgical site infection in this setting.

Method(s): We conducted a retrospective study of consecutive patients over a 6-year period with distal penile hypospadias treated with urethral stenting. Variables analyzed include age, type of repair, usage of preoperative and/or postoperative antibiotics, and length of follow-up. Patients with a history of proximal or re-operative hypospadias repair were excluded. Surgical site infection was defined by the presence of postoperative penile erythema and/or purulent drainage treated with therapeutic antibiotics. Secondary outcome analysis included the presence of other hypospadias complications.
Result(s): 441 consecutive subjects met our inclusion criteria with a mean age of 13.3 months. Patients were categorized into groups: Group 1 - Preoperative antibiotics (n = 64), Group 2 - Both Preoperative & Postoperative antibiotics (n = 159), Group 3 - Postoperative antibiotics (n = 122), Group 4 - No Preoperative or Postoperative antibiotics (n = 96). Two surgical site infections were reported out of the 441 patients: 1 in Group 3 and 1 in Group 4 (p = 0.513). There was no significant difference in the total patients with a hypospadias complication between groups. In the table below, Groups 1-3 were combined (345 patients) for comparison to Group 4 (No antibiotics, 96 patients) for further analysis with no difference in SSIs (p = 0.388) or respective hypospadias complications.
Conclusion(s): The use of perioperative prophylactic antibiotics, both before and after surgery for distal, stented hypospadias repair, have not been shown to reduce the rate of surgical site infections nor hypospadias complications. Consequently, the benefit of prophylactic antibiotics in this setting is unclear.

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33349560 [https://www.ncbi.nlm.nih.gov/pubmed/?term=33349560]
Status
Embase
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Publisher
Elsevier Ltd
Year of Publication
2021

225.

Comparing caudal block and penile block using rectal acetaminophen in postoperative analgesia of hypospadias repair: A randomized clinical trial study.
Karami T., Hoshyar H., Tavana A.M.
Embase
International Journal of Surgery Open. 29 (pp 9-13), 2021. Date of Publication: February 2021.
[Article]
AN: 2010609293
Background and objective: selecting the analgesia method in pediatrics is of most importance. In pediatrics required hypospadias repair, two methods of the caudal block and penile block are used increasingly. This study aimed to compare two methods of the caudal block and penile block using rectal acetaminophen in postoperative analgesia of hypospadias repair.

Method(s): This clinical trial was conducted on 50 children who underwent hypospadias referred to the educational hospital of Shahid Motahari in Urmia in west-north of Iran from July 1st, 2019 to March 1st, 2020. Patients were selected using a convenient sampling method and were allocated in two groups of the caudal block and penile block using rectal acetaminophen by random allocation software. To assess analgesia, the FLACC scale was used.
Result(s): Mean age of participants was 27 months, the mean weight of participants was 13 kg, and their mean height was 82 cm. Regarding assessment changes in pain severity, the results showed in two groups that in group 1 (caudal block) in time intervals of recovery, 6 h, 12 h, and 24 h after the surgery, pain severity was reached to 1.16 and in group 2 (penile block) was reached to 3.44. The results showed that in group 1 (caudal block) patients suffer significantly less pain than patients in group 2 (penile block) (P = 0.001).
Conclusion(s): According to results obtained from this study, hypospadias repair in pediatrics using caudal block can provide longer analgesia for the patient.

Status
Embase
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Publisher
Elsevier Ltd
Clinical Trial Number
IRCT20170516033992N2/IRCT
Year of Publication
2021

226.

Comparative study of morbidity and mortality pre- and postoperative of laparoscopic nephrectomy for inflammatory versus tumoral cause according to the Clavien-Dindo classification: prospective study over 2 years.
Ncir H., Errehan M., Oubihi M., Lakmichi M.A., Dahami Z., Moudouni S.M., Sarf I.
Embase
African Journal of Urology. 27(1) (no pagination), 2021. Article Number: 3. Date of Publication: December 2021.
[Article]
AN: 2010134395
Background: For 29 years, Laparoscopic Nephrectomy has steadily established itself as a technique for kidney excision. Patients as well as surgeons appreciate the benefits of this less invasive technique. Although the morbidity and mortality of this minimally invasive technique are relatively low, the risks it entails must be taken into account seriously. The purpose of this study is to evaluate and compare the intra- and postoperative morbidity and mortality factors connected to Laparoscopic Transperitoneal Nephrectomy for inflammatory kidney versus tumoral kidney according to the Clavien-Dindo classification.
Method(s): A prospective comparative mono-centric study was carried out over a period of 24 months (January 2018-January 2020) on patients having benefited from a Laparoscopic Transperitoneal Nephrectomy for Inflammatory (Group 1) or Tumoral (Group 2) causes. Postoperative morbidity and mortality were assessed according to the Dindo-Clavien classification.
Result(s): This study included 60 patients. Group 1 consisted of 32 patients (median age: 50.4 years) and Group 2 of 28 patients (median age: 61 years). Drainage of inflammatory kidneys was done preoperatively by nephrostomy drain (11 cases) and double J probe (3 cases). The mean

operating time was longer in Group 1 (234 vs 186.8 min, p = 0.1). The conversion rate was statistically significant in Group 1 (6 vs 1, p < 0.05). The rate of Grade 1 complications is very significant in Group 1: ileus (6 vs 2, p = 0.02), postoperative antibiotic therapy (26 vs 3, p = 0.001) and infection of the wall (4 vs 0, p < 0.001). The rate of severe complications (Clavien >= 3) was the same in the two groups. The average length of hospital stay was higher in Group1.
Conclusion(s): Our work (study) showed a higher rate of severe complications in Laparoscopic nephrectomies for inflammatory causes.

Status
Embase
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Publisher
Springer Science and Business Media Deutschland GmbH
Year of Publication
2021

227.

Routine postoperative blood tests in all patients undergoing Total Hip Arthroplasty as part of an enhanced recovery pathway: Are they necessary?.
Garg V., Byrom I., Agnew N., Starks I., Phillips S., Malek I.A.
Embase
Journal of Clinical Orthopaedics and Trauma. 16 (pp 114-118), 2021. Date of Publication: May 2021.
[Article]
AN: 2010888667
Introduction: The increasing demand for Total Hip replacement (THR)/Total Hip Arthroplasty (THA) continues to place significant financial pressure on the National Health Service (NHS). Many institutions undertake post-operative blood tests routinely in this group of patients. The aim of this study was to identify if such routine blood tests (Full Blood Count (FBC) and Urea and Electrolytes(U&Es)) are required in all THR patients post-operatively.
Method(s): Single institute, Multi-surgeon, retrospective observational study of consecutive patients who underwent primary elective THR done from Jan 2014 to Dec 2018.Post-operative blood tests and medical records were reviewed to identify derangement in haemoglobin (Hb) level and renal function requiring clinical intervention.
Result(s): Over the period of 4 years, 353 patients underwent elective THR with mean age of 70 years (range: 42-90). There were 203 Males and 150 Females. Mean pre-operative Hb was 134.7 g/l. Mean post-operative drop in Hb was 22.3 g/l. None of the patients in ASA grade 1 and 2 with age <=70 years required blood transfusion post operatively. 6.4% of patients (n = 18/280) with an ASA of 1-2 had postoperative blood results requiring intervention of which only four (1.2%) were <=70 years of age compared to 17.8% of patients (n = 14/73) with ASA 3-4. Overall none of the patients in ASA grade 1 and 2 with age <=70 years required blood transfusion post operatively nor had electrolyte disturbance. 1.2% had deranged renal function that needed minor clinical intervention.
Conclusion(s): Routine post-operative blood analyses may not required for all patients undergoing THA. Young and healthier patients seldom have significant abnormalities on routine post-operative blood analyses which requires clinical intervention.

Status
Embase

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Year of Publication
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228.

Clinical utility of enhanced recovery after surgery pathways in pediatric spinal deformity surgery: Systematic review of the literature.
Pennington Z., Cottrill E., Lubelski D., Ehresman J., Lehner K., Groves M.L., Sponseller P., Sciubba D.M.
Embase
Journal of Neurosurgery: Pediatrics. 27(2) (pp 225-238), 2021. Date of Publication: February 2021.
[Article]
AN: 2010877963
OBJECTIVES More than 7500 children undergo surgery for scoliosis each year, at an estimated annual cost to the health system of $1.1 billion. There is significant interest among patients, parents, providers, and payors in identifying methods for delivering quality outcomes at lower costs. Enhanced recovery after surgery (ERAS) protocols have been suggested as one possible solution. Here the authors conducted a systematic review of the literature describing the clinical and economic benefits of ERAS protocols in pediatric spinal deformity surgery. METHODS The authors identified all English-language articles on ERAS protocol use in pediatric spinal deformity surgery by using the following databases: PubMed/MEDLINE, Web of Science, Cochrane Reviews, EMBASE, CINAHL, and OVID MEDLINE. Quantitative analyses of comparative articles using random effects were performed for the following clinical outcomes: 1) length of stay (LOS); 2) complication rate; 3) wound infection rate; 4) 30-day readmission rate; 5) reoperation rate; and 6) postoperative pain scores. RESULTS Of 950 articles reviewed, 7 were included in the qualitative analysis and 6 were included in the quantitative analysis. The most frequently cited benefits of ERAS protocols were shorter LOS, earlier urinary catheter removal, and earlier discontinuation of patient-controlled analgesia pumps. Quantitative analyses showed ERAS protocols to be associated with shorter LOS (mean difference -1.12 days; 95% CI -1.51, -0.74; p < 0.001), fewer postoperative complications (OR 0.37; 95% CI 0.20, 0.68; p = 0.001), and lower pain scores on postoperative day (POD) 0 (mean -0.92; 95% CI -1.29, -0.56; p < 0.001) and POD 2 (-0.61; 95% CI -0.75, -0.47; p < 0.001). There were no differences in reoperation rate or POD 1 pain scores. ERAS-treated patients had a trend toward higher 30-day readmission rates and earlier discontinuation of patient-controlled analgesia (both p = 0.06). Insufficient data existed to reach a conclusion about cost differences. CONCLUSIONS The results of this systematic review suggest that ERAS protocols may shorten hospitalizations, reduce postoperative complication rates, and reduce postoperative pain scores in children undergoing scoliosis surgery. Publication biases exist, and therefore larger, prospective, multicenter data are needed to validate these results.

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33254141 [https://www.ncbi.nlm.nih.gov/pubmed/?term=33254141]
Status
Embase
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Publisher
American Association of Neurological Surgeons
Year of Publication
2021

229.

Subcutaneous analgesic system versus epidural for post-operative pain control in surgical pediatric oncology patients.
Johnson B.L., Todd H.F., Vasudevan S.A., Nuchtern J.G., Patel N.V., Naik-Mathuria B.J.
Embase
Journal of Pediatric Surgery. 56(1) (pp 104-109), 2021. Date of Publication: January 2021.
[Article]
AN: 2008449954
Background/Purpose: Pediatric oncology patients often undergo open operations for tumor resection, and epidural catheters are commonly utilized for pain control. Our purpose was to evaluate whether a subcutaneous analgesic system (SAS) provides equivalent post-operative pain control.
Method(s): An IRB approved, retrospective chart review of children age < 18 undergoing open abdominal, pelvic or thoracic surgery for tumor resection between 2017 and 2019 who received either epidural or SAS for post-operative pain control was performed. Comparisons of morphine milligram equivalents (MME), pain scores, and post-operative course were made using parametric and non-parametric analyses.
Result(s): Of 101 patients, median age was 7 years (2 months-17.9 years). There were 65 epidural and 36 SAS patients. Transverse laparotomy was the most common incision (41%), followed by thoracotomy (29%). Pain scores, MME, urinary catheter days, and post-operative length of stay (LOS) were similar between the two groups. Urinary catheter use was more common in epidural patients (70% vs 30%, p = < 0.001). SAS patients had faster time to ambulation and time to regular diet by 1 day (p = 0.02). Epidural patients more commonly had a complication with the pain device (20% vs 3%, p = 0.02) and were more likely to be discharged with narcotics (60% vs. 40%, p = 0.04). Charges associated with the hospital stay were similar between the two groups.
Conclusion(s): In pediatric oncology patients undergoing open abdominal, pelvic, and thoracic surgery, SAS may provide similar pain control to epidural, but with faster post-operative recovery, fewer complications, and less discharge narcotic use. A prospective study is needed to validate these results.
Type of Study: Retrospective Comparative Level of Evidence: Level III

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33139029 [https://www.ncbi.nlm.nih.gov/pubmed/?term=33139029]
Status
Embase
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Publisher

W.B. Saunders
Year of Publication
2021

230.

Does a balanced colloid decrease perioperative blood loss in paediatric cardiac surgery: A double-blinded randomized controlled trial?.
Willems A., De Groote F., Schmartz D., Fils J.-F., Van der Linden P.
Embase
European journal of anaesthesiology. 38(9) (pp 923-931), 2021. Date of Publication: 01 Sep 2021.
[Article]
AN: 635004678
BACKGROUND: Unbalanced fluid solutions cause metabolic acidosis and could be associated with impaired coagulation and increased blood loss.
OBJECTIVE(S): To investigate whether the use of a balanced colloid compared with a saline colloid for peri-operative fluid therapy in children undergoing cardiac surgery is associated with decreased blood loss and exposure to blood products. DESIGN: Double-blinded randomised controlled trial. SETTING: Tertiary children's hospital from 2013 to 2016. PATIENTS: Children older than 29 days and younger than 3 years admitted for cardiac surgery with cardiopulmonary bypass (CPB). Exclusion criteria were emergency cardiac surgery, moribund (American Society of Anesthesiologists 5), Jehovah's witnesses, coagulopathy, renal failure, liver injury, intracranial haemorrhage and electrolyte disturbances. From the 128 patients eligible, 88 were included in the study. INTERVENTION: Random assignment of patients to either a saline colloid (6% hydroxyethyl starch 130/0.4 in 0.9% NaCl) or a balanced-electrolyte colloid (6% hydroxyethyl starch 130/0.4 in an isotonic solution) for CPB priming and intra- and postoperative fluid therapy during the first postoperative 48 h. MAIN OUTCOME MEASURE: The primary outcome measure was calculated blood loss until the third postoperative day (POD3).
RESULT(S): A total of 44 patients were included in each study arm. Calculated blood loss at POD3 was not significantly different between the groups (saline colloid 19.9 [IQR 13.8 to 26.1] ml kg-1 versus balanced colloid 15.9 [IQR 9.0 to 25.3 ml kg-1], P = 0.409). Secondary outcomes related to bleeding, exposure to blood products and coagulation were not different between groups. There was also no difference in length of mechanical ventilation, intensive care and hospital length of stay between groups.
CONCLUSION(S): The use of a balanced colloid for peri-operative fluid therapy compared with a saline one is not associated with decreased blood loss or exposure to blood products. TRIAL REGISTRATION: EudraCT identifier: 2012-006034-17 and ClinicalTrial.gov identifier: NCT02584868.

PMID
33966019 [https://www.ncbi.nlm.nih.gov/pubmed/?term=33966019]
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Publisher
NLM (Medline)
Clinical Trial Number
https://clinicaltrials.gov/show/NCT02584868

Year of Publication
2021

231.

Comparison of Monotherapy Versus Combination of Intravenous Ibuprofen and Propacetamol (Acetaminophen) for Reduction of Postoperative Opioid Administration in Children Undergoing Laparoscopic Hernia Repair: A Double-Blind Randomized Controlled Trial.
Lee H.-M., Park J.-H., Park S.-J., Choi H., Lee J.-R.
Embase
Anesthesia and analgesia. 133(1) (pp 168-175), 2021. Date of Publication: 01 Jul 2021.
[Article]
AN: 633412087
BACKGROUND: Extensive efforts have been made toward reducing postoperative opioid use in children. In this study, we assessed whether propacetamol, or a nonsteroidal anti-inflammatory drug (NSAID), or their combination could effectively reduce opioid use in children after laparoscopic inguinal hernia repair.
METHOD(S): This randomized, double-blind clinical trial included 159 children aged 6 months to 6 years. Children were allocated into 1 of the following 3 groups: group I was treated with 10 mg.kg-1 ibuprofen, group P was treated with 30 mg.kg-1 propacetamol, and group I + P was treated with both drugs in their respective concentrations. If the face-legs-activity-crying-consolability (FLACC) score was >=4 during the postanesthesia care unit stay, 1.0 microg.kg-1 fentanyl was administered as a rescue analgesic. The number of patients who received rescue fentanyl in the postanesthesia care unit was defined as the primary outcome; this was analyzed using the chi2 test. The secondary outcomes included the FLACC and the parents' postoperative pain measure (PPPM) scores until the 24-hour postoperative period.
RESULT(S): Among the 144 enrolled patients, 28.6% in group I, 66.7% in group P, and 12.8% in group I + P received rescue fentanyl in the postanesthesia care unit (P < .001). The highest FLACC score was lower in group I + P than in either group I or P (P = .007 and P < .001, respectively). Group I + P presented significantly lower PPPM scores than group P at 4 and 12 hours postoperative (P = .03 and .01, respectively).
CONCLUSION(S): The use of ibuprofen plus propacetamol immediately following laparoscopic hernia repair surgery in children resulted in the reduced use of an opioid drug compared with the use of propacetamol alone.

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33181557 [https://www.ncbi.nlm.nih.gov/pubmed/?term=33181557]
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Publisher
NLM (Medline)
Clinical Trial Number
https://clinicaltrials.gov/show/NCT03352362
Year of Publication
2021

232.

Impact of Multidisciplinary Audit of Enhanced Recovery After Surgery (ERAS) Programs at a Single Institution.
Pickens R.C., Cochran A.R., Lyman W.B., King L., Iannitti D.A., Martinie J.B., Baker E.H., Ocuin L.M., Riggs S.B., Davis B.R., Matthews B.D., Vrochides D.
Embase
World journal of surgery. 45(1) (pp 23-32), 2021. Date of Publication: 01 Jan 2021.
[Article]
AN: 632784715
BACKGROUND: As Enhanced Recovery After Surgery (ERAS) programs expand across numerous subspecialties, growth and sustainability on a system level becomes increasingly important and may benefit from reporting multidisciplinary and financial data. However, the literature on multidisciplinary outcome analysis in ERAS is sparse. This study aims to demonstrate the impact of multidisciplinary ERAS auditing in a hospital system. Additionally, we describe developing a financial metric for use in gaining support for system-wide ERAS adoption and sustainability.
METHOD(S): Data from HPB, colorectal and urology ERAS programs at a single institution were analyzed from a prospective ERAS Interactive Audit System (EIAS) database from September 2015 to June 2019. Clinical 30-day outcomes for the ERAS cohort (n=1374) were compared to the EIAS pre-ERAS control (n=311). Association between improved ERAS compliance and improved outcomes were also assessed for the ERAS cohort. The potential multidisciplinary financial impact was estimated from hospital bed charges.
RESULT(S): Multidisciplinary auditing demonstrated a significant reduction in postoperative length of stay (LOS) (1.5 days, p<0.001) for ERAS patients in aggregate and improved ERAS compliance was associated with reduced LOS (coefficient-0.04, p=0.004). Improved ERAS compliance in aggregate also significantly associated with improved 30-day survival (odds ratio 1.04, p=0.001). Multidisciplinary analysis also demonstrated a potential financial impact of 44% savings (p<0.001) by reducing hospital bed charges across all specialties.
CONCLUSION(S): Multidisciplinary auditing of ERAS programs may improve ERAS program support and expansion. Analysis across subspecialties demonstrated associations between improved ERAS compliance and postoperative LOS as well as 30-day survival, and further suggested a substantial combined financial impact.
PMID
32886166 [https://www.ncbi.nlm.nih.gov/pubmed/?term=32886166]
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Publisher
NLM (Medline)
Year of Publication
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233.

Government Mandated Consent Dramatically Reduces Pediatric Urologist Opioid Utilization for Outpatient and Minor Emergency Surgeries.
Villanueva J., Grajales V., Colaco M., Ayyash O., Chaudhry R., Schneck F., Cannon G., Fox J.
Embase
The Journal of urology. 205(1) (pp 264-270), 2021. Date of Publication: 01 Jan 2021.
[Article]
AN: 632537398
PURPOSE: Postoperative opioids are overprescribed in the United States. In November 2016 the State of Pennsylvania required an opioid consent for minors. Our hypothesis is that this mandate decreased postoperative opioid prescriptions in our division. MATERIALS AND METHODS: All patients who received a urological outpatient or minor emergency procedure from August 2015 to August 2019 were identified. Surgeries performed within 6 months after mandate implementation were excluded to account for the transition period. Perioperative data including case type were extracted by a clinical data warehouse from preexisting fields within the health record. The frequencies of postoperative prescriptions, delayed prescriptions and emergency department encounters were assessed. A multivariable logistic regression to identify predictors of opioid prescription at discharge was performed.
RESULT(S): A total of 4,349 patients were analyzed. The frequency of postsurgical opioid prescriptions decreased from 45.3% to 2.6% (p <0.001). The median morphine milligram equivalent decreased by 22.5 among children prescribed an opioid (p <0.001). Rates of an emergency department visits (3% vs 2.7%) or delayed nonopioid prescriptions (0.8% vs 1.2%) within 30 days of discharge were unchanged (p >0.05). Fewer patients received a delayed opioid prescription after mandate implementation (0.03% vs 0.5%, p <0.001). Female patients were less likely (OR 0.309, 95% CI 0.195-0.491; p <0.001) to receive opioids prior to but not after the mandate (OR 0.309, 95% CI 0.544-2.035; p=0.122). Increasing age was predictive of receiving an opioid before (OR 1.187, 95% CI 1.157-1.218; p <0.001) and after (OR 1.241, 95% CI 1.186-1.299; p <0.001) the mandate.
CONCLUSION(S): A state mandated opioid consent for minors greatly reduced post-urological surgery opioid prescription rates without increasing rates of readmission or delayed prescriptions.
PMID
32749908 [https://www.ncbi.nlm.nih.gov/pubmed/?term=32749908]
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Publisher
NLM (Medline)
Year of Publication
2021

234.

Long-term Comparison of Recurrence Rates Between Different Lightweight and Heavyweight Meshes in Open Anterior Mesh Inguinal Hernia Repair: A Nationwide Population-based Register Study.
Melkemichel M., Bringman S.A.W., Widhe B.O.O.
Embase
Annals of surgery. 273(2) (pp 365-372), 2021. Date of Publication: 01 Feb 2021.
[Article]

AN: 631227010
OBJECTIVE: To compare the reoperation rate for recurrence of different lightweight to heavyweight meshes after an open anterior mesh (OAM) inguinal hernia repair. SUMMARY BACKGROUND DATA: Lightweight meshes have shown benefits compared with heavyweight meshes in terms of accelerated recovery after surgery with less postoperative pain. The use of such meshes may, however, be associated with an increase in hernia recurrence. Studies of large cohorts with long-term follow-up regarding recurrence are lacking.
METHOD(S): All OAM groin hernia repairs registered in The Swedish Hernia Register between January 1, 2005 and December 31, 2013 were eligible. Follow-up time was until June 30, 2016. Four groups of meshes were included: polypropylene (PP) heavyweight meshes >50 g/m2 (HWM), regular lightweight PP meshes <50 g/m2 (regular LWM-PP), lightweight PP mesh with absorbable poliglecaprone-25(LWM-PP/PGC), or polyglactin-910(LWM-PP/PG). Primary endpoint was reoperation for recurrence.
RESULT(S): 76,495 OAM inguinal hernia repairs in male patients were included for statistical analysis. 1676 repairs were reoperated for recurrence. Multivariate analysis demonstrated no significant difference of risk for recurrence between HWM and regular LWM-PP (HR 1.12, P = 0.13). LWM-PP/PGC (HR 1.42, P < 0.001) and LWM-PP/PG (HR 2.05, P < 0.001) resulted in a significant increased risk compared with HWM. Larger hernia defects, direct hernias, and recurrent hernias were associated with an increased risk of reoperation for recurrence.
CONCLUSION(S): Although lightweight meshes with partially absorbable component resulted in an increased risk of recurrence, there was no difference between regular LWM-PP and HWM. Considering that regular LWM-PP has less associated side effects there are no benefits of using HWM in OAM inguinal hernia repair.

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30720504 [https://www.ncbi.nlm.nih.gov/pubmed/?term=30720504]
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2021

235.

Comparison of Analgesic Efficacy of Ultrasound-Guided Transversus Abdominus Plane Block and Caudal Block for Inguinal Hernia Repair in Pediatric Population: A Single-Blinded, Randomized Controlled Study.
Kodali VRK, Kandimalla A, Vakamudi M
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Anesthesia: Essays and Researches. 14(3):478-484, 2020 Jul-Sep.
[Journal Article]
UI: 34092862
BACKGROUND: Caudal analgesia was a widely practiced regional anesthesia technique in pediatric population. Transversus abdominus plane block (TAP) block has recently emerged as a promising analgesic method in pediatric lower abdominal surgeries.
AIM: This study aimed to compare the analgesic efficacy of ultrasound-guided TAP block and caudal block.

SETTING: This study was conducted in the department of anesthesiology of a tertiary care teaching hospital.
DESIGN: This was a prospective, single-blinded, randomized controlled study.
MATERIALS AND METHODS: Sixty-two children of American Society of Anesthesiologists Class I and II undergoing inguinal hernia repair received TAP block at a dose of 0.5 ml.kg- 1 of 0.25% bupivacaine (Group A) or caudal block at a dose of 1 ml.kg- 1 of 0.25% bupivacaine (Group B) after randomization. The children were analyzed by comparing the post operative pain scores and duration of analgesia. Statistical analysis was done with IBM SPSS software 23 version. Unpaired sample t-test and Mann-Whitney U-test were used to compare the means of continuous variables. Fisher's exact test/Chi-square test was used to find the association between categorical variables.
RESULTS: Both groups were comparable in terms of age, gender, weight, and surgery duration. Duration of analgesia was longer in TAP block group compared to that of caudal analgesia (12.93 +/- 2.91 h vs. 6.52 +/- 1.67 P < 0.001). The postoperative pain scores were comparable up to 6 h and at 24 h. Pain scores at 12 h and 18 h were significantly higher in caudal analgesia group compared to that of TAP block group.
CONCLUSION: Children who received TAP block had prolonged duration of analgesia and lower pain scores compared to those who received caudal analgesia.

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1
Status
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PMID
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8159061
Year of Publication
2020

236.

Clonidine and Morphine as Adjuvants for Caudal Anaesthesia in Children: A Systematic Review and Meta-Analysis of Randomised Controlled Trials. [Review]
Goyal S, Sharma A, Goswami D, Kothari N, Goyal A, Vyas V, Kirubakaran R, Sahu R, Singh S
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Turk Anestezi Ve Reanimasyon Dergisi. 48(4):265-272, 2020 Aug.
[Journal Article. Review]
UI: 32864640
OBJECTIVE: The aim of this systematic review and meta-analysis is to compare the outcomes of morphine vs. clonidine use as adjuvants in caudal anaesthesia. We are specifically focused on analgesic and side effect profiles.
METHODS: We searched databases and trial registration sites and include here randomised controlled trials that compare the analgesic effects of caudal clonidine vs. morphine as adjuvants on postoperative pain. The risk ratio for evaluating pain scores, the need for rescue analgesia

and all adverse effects were assessed. The i2 statistic was used to assess heterogeneity. We also assessed risk of bias with Cochrane's Collaboration tool. The quality of evidence was assessed with Grading of Recommendations Assessment, Development and Evaluation (GRADE) system.
RESULTS: Four randomised controlled trials (including 166 patients) that evaluated the use of clonidine vs. morphine as adjuvants in caudal block were included in this systematic review and meta-analysis. The pooled estimate for postoperative analgesia revealed no statistically significant differences between the clonidine group compared to morphine group (MD=2.90; 95% CI 4.05 to 9.85; i2 93%). Significantly less postoperative nausea and vomiting were reported among the patients that received clonidine vs. those that were treated with morphine (RR 0.57, 95% CI -0.36 to -0.90, i2 26%). There were no statistically significant differences between the two groups in assessments that included urinary retention, pain scores or need for rescue analgesia at 24 hours.
CONCLUSION: Clonidine is just as effective as morphine when used an adjuvant to local anaesthetic for caudal block, and has a more desirable side effect profile, particularly with respect to postoperative nausea and vomiting.

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1
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237.

Lumboscopic-Assisted Pyeloplasty: A Single-Port, Retroperitoneoscopic Approach for Children with Pelvi-Ureteric Junction Obstruction.
Bajpai M, Khanna K, Khanna V, Goel P, Baidya DK
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Journal of Indian Association of Pediatric Surgeons. 25(3):163-168, 2020 May-Jun.
[Journal Article]
UI: 32581444
INTRODUCTION: Pelvi-ureteric junction obstruction (PUJO) is one of the most common conditions presenting to a pediatric urologist. As laparoscopic or robotic-assisted pyeloplasty, either transperitoneal or retroperitoneal, involves intracorporeal suturing skills and has a long learning curve, they have not gained popularity among beginners in laparoscopy.
OBJECTIVE: We conducted a study to assess the results of a single-port, retroperitoneoscopic approach to renal access, i.e. lumboscopic-assisted pyeloplasty (LAP), by single surgeon at our institute.
MATERIALS AND METHODS: A retrospective review of all children who underwent LAP from July 2013 to March 2018 was conducted. Patients who presented with PUJO and required surgical treatment were included. A single-port lumboscopy using coaxial telescope was performed in prone position in all patients. The renal pelvis was dissected and retrieved through the port site followed by extracorporeal hand-sewn pyeloplasty over a double-J stent or a nephrostent. The operative time, postoperative pain, surgical complications, duration of hospital stay, follow-up, and cosmesis at 6 months postsurgery were evaluated.
RESULTS: A total of 96 children were included (72 males and 24 females), with the age at operation ranging from 3 months to 10 years (mean = 4.9 years). All patients had an uneventful postoperative recovery. Two patients had a superficial wound infection, and one patient was converted to open approach due to excessive bleeding. The average operating time was 80 +/- 22.5 min, the median duration of hospital stay was 3 days, and the average scar length at 3 months was 15.6 +/- 0.4 mm. Follow-up renogram (diethylenetriamine pentaacetic acid) showed satisfactory postpyeloplasty drainage pattern in 93 children while three showed obstructive drainage curves.
CONCLUSION: LAP can be performed safely with minimal retroperitoneal dissection, excellent cosmetic results, and minimal postoperative pain in children with PUJO. It has a shorter learning curve as compared to laparoscopic pyeloplasty as it involves time tested extracorporeal hand-sewn anastomosis.

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1
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238.

Comparison of bupivacaine alone and in a combination with lidocaine for caudal block in patients undergoing circumcision: A historical cohort study.
Atasever AG, Ermis O, Demir BS, Kasali K, Karadeniz MS
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Turkish Journal of Urology. 46(3):243-248, 2020 05.
[Journal Article]
UI: 32401707
OBJECTIVE: Optimal analgesia following ambulatory surgery is an important matter in patient satisfaction, and it reduces unnecessary hospital admissions. This study investigated whether a caudal block with bupivacaine alone or in a combination with lidocaine can alter postoperative pain scores, complications, and peroperative and postoperative analgesic consumption.
MATERIAL AND METHODS: This is a retrospective study that included children who underwent elective circumcision surgery under general anesthesia and caudal analgesia between January and June 2018. Among the 103 children, 17 cases were not analyzed due to an unsuccessful caudal block and procedures simultaneously underwent another operation unrelated to circumcision. We divided the study participants into two groups according to the type of local anesthetic applied: 0.5 mL/kg 0.25% bupivacaine (Group B) and 0.5 mL/kg 0.25% bupivacaine + 3 mg/kg 1% lidocaine (Group BL) caudally.
RESULTS: Pain scores were similar between these groups and remained in the mild-to-moderate range throughout the hospitalization ($p>0.05$). There were significant differences regarding the rescue analgesic use, first micturition, and mobilization times ($p<0.001$). In addition, we applied the multivariable logistic regression for fentanyl consumption adjusted for first mobilization and micturition time, unlike mobilization, a significantly increased risk for postoperative delayed micturition (OR, 1.06; 95% CI, 1.0-1.12; $p=0.038$) was found with intra-operative intravenous fentanyl use.
CONCLUSION: Our results suggest that the caudal block with a lidocaine+bupivacaine combination decreases rescue analgesic consumption at day-case surgery. In circumcision procedures, the caudal block is an effective and safe analgesic method for intraoperative and postoperative pain control with no side effects. This trial was registered at Clinicaltrals.gov, NCT03911648.
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239.

The impact of nephrostomy balloon inflation volume on post percutaneous nephrolithotomy hemorrhage.
Khori FA, Al-Naser MM, Al-Majali AS, Al-Serhan MA, Al-Kaabneh AB, Ni'mate AS, Al-Qaralleh AA, Alrababaah AM, Al-Jfout SG, Al-Saidah NJ, Al-Asmer AA, Al-Khawaldah BA, Alemoush MA, Al-Hjazeen AA
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The Pan African medical journal. 36:384, 2020.
[Journal Article]
UI: 33235661
INTRODUCTION: the study aims to match different volumes of nephrostomy balloon inflation to point out the foremost effective volume size of post percutaneous nephrolithotomy (PCNL) bleeding control.
METHODS: we have retrospectively reviewed "560" medical records of patients who underwent percutaneous nephrolithotomy between (the years 2017 and 2018) at Prince Hussein Urology Center. The Patients were divided into two teams, group-1 (a number of 280 patients) with nephrostomy balloon inflated concerning three ml and group-2 (a number of 280 patients) the balloon inflated concerning one ml. The preoperative and postoperative hematocrit, the operation duration, the stone size, the postoperative pain severity, the transfusion rate and the duration of hematuria between the two groups were compared during hospitalization.
RESULTS: regarding patients with ages (between 18 and 68 years); the preoperative hematocrit (mean values +/- SDs) was (40.35% +/- 3.57) vs (39.95% +/- 3.43) for groups-1 and 2, respectively; the p value=0.066. The postoperative hematocrit was (37.91% +/- 3.96) vs (34.38 +/- 2.78), respectively; the p value was (0.008); the blood transfusion rate was 11.2% vs 13.4% (the p value was 0.039), respectively. The Postoperative pain score was (4.93 +/- 1.44) vs (3.89 +/- 1.45) (the p value was 0.012), respectively.
CONCLUSION: increasing the nephrostomy balloon volume to a "3cc" competes for a task to decrease bleeding which was found to be as a secure and considerable effective procedure-related factor. However, the disadvantage of this technique resulted in increasing the postoperative pain in patients undergoing such a procedure.

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240.

Intravesical dexmedetomidine instillation reduces postoperative catheter-related bladder discomfort in male patients under general anesthesia: a randomized controlled study.
Chen H, Wang B, Li Q, Zhou J, Li R, Zhang Y
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BMC Anesthesiology. 20(1):267, 2020 10 22.
[Journal Article. Randomized Controlled Trial. Research Support, Non-U.S. Gov't]
UI: 33092527
BACKGROUND: The catheter-related bladder discomfort (CRBD) of male patients is a common clinical problem, albeit lacking effective solutions. The present study aimed to investigate whether

intravesical dexmedetomidine instillation alleviates the postoperative urinary discomfort in male patients with catheter under general anesthesia.
METHODS: This single-blinded, prospective, randomized study included a total of 167 male patients American Society of Anesthesiologists (ASA) physical status I-II scheduled for surgery under general anesthesia were allocated to two groups: 84 in the dexmedetomidine group and 83 in the control group. Dexmedetomidine group patients received intravesical instillation of the drug 0.5 mug/kg and normal saline 20 mL, while the control group received intravesical instillation of 20 mL normal saline. The catheter was clamped for 30 min after intravesical instillation for all patients. CRBD scores and urethra pain numerical rating scale (NRS) scores were measured at admittance to post-anesthesia care unit (PACU) (T0), intravesical instillation (T1), 30 min (T2), 60 min (T3), 2 h (T4) after intravesical instillation, discharged from PACU (T5), and 6 h (T6) and 24 h (T7) after the operation. Patient satisfaction at discharge from PACU and 24 h post-operation were compared between the two groups.
RESULTS: CRBD scores and urethra pain NRS scores after 30 min of intravesical dexmedetomidine instillation to 24 h post-operation were significantly lower than the control group ($p < 0.001$), and patient satisfaction was higher at discharge from PACU and 24 h post-operation ($p < 0.001$). No differences were detected in Steward score out of PACU ($p = 0.213$) and from the time of the end of operation to fully awake ($p = 0.417$).
CONCLUSION: Intravesical dexmedetomidine instillation reduces postoperative urinary discomfort and urethra pain and improves satisfaction in male patients under general anesthesia.
TRIAL REGISTRATION: Chinese Clinical Trial Registry (No. ChiCTR1800016429), date of registration 1st June 2018.
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241.

Bleeding After Musculoskeletal Surgery in Hospitals That Switched From Hydroxyethyl Starch to Albumin Following a Food and Drug Administration Warning.
Krishnamoorthy V, Ellis AR, McLean DJ, Stefan MS, Nathanson BH, Cobert J, Lindenauer PK, Brookhart MA, Ohnuma T, Raghunathan K
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Anesthesia & Analgesia. 131(4):1193-1200, 2020 10.
[Journal Article. Research Support, Non-U.S. Gov't]
UI: 32925340
BACKGROUND: While US Food and Drug Administration (FDA) black box warnings are common, their impact on perioperative outcomes is unclear. Hydroxyethyl starch (HES) is associated with increased bleeding and kidney injury in patients with sepsis, leading to an FDA black box warning in 2013. Among patients undergoing musculoskeletal surgery in a subset of hospitals where colloid use changed from HES to albumin following the FDA warning, we examined the rate of major perioperative bleeding post- versus pre-FDA warning.
METHODS: The authors of this article used a retrospective, quasi-experimental, repeated cross-sectional, interrupted time series study of patients undergoing musculoskeletal surgery in hospitals within the Premier Healthcare Database, in the year before and year after the 2013 FDA black box warning. We examined patients in 23 "switcher" hospitals (where the percentage of colloid recipients receiving HES exceeded 50% before the FDA warning and decreased by at least 25% in absolute terms after the FDA warning) and patients in 279 "nonswitcher" hospitals. Among patients having surgery in "switcher" and "nonswitcher" hospitals, we determined monthly rates of major perioperative bleeding during the 12 months after the FDA warning, compared to 12 months before the FDA warning. Among patients who received surgery in "switcher" hospitals, we conducted a propensity-weighted segmented regression analysis assessing differences-in-differences (DID), using patients in "nonswitcher" hospitals as a control group.
RESULTS: Among 3078 patients treated at "switcher" hospitals (1892 patients treated pre-FDA warning versus 1186 patients treated post-FDA warning), demographic and clinical characteristics were well-balanced. Two hundred fifty-one (13.3%) received albumin pre-FDA warning, and 900 (75.9%) received albumin post-FDA warning. Among patients undergoing surgery in "switcher" hospitals during the pre-FDA warning period, 282 of 1892 (14.9%) experienced major bleeding during the hospitalization, compared to 149 of 1186 (12.6%) following the warning. In segmented regression, the adjusted ratio of slopes for major perioperative bleeding post- versus pre-FDA warning was 0.98 (95% confidence interval [CI], 0.93-1.04). In the DID estimate using "nonswitcher" hospitals as a control group, the ratio of ratios was 0.93 (95% CI, 0.46-1.86), indicating no significant difference.
CONCLUSIONS: We identified a subset of hospitals where colloid use for musculoskeletal surgery changed following a 2013 FDA black box warning regarding HES use in sepsis. Among patients undergoing musculoskeletal surgery at these "switcher" hospitals, there was no significant decrease in the rate of major perioperative bleeding following the warning, possibly due to incomplete practice change. Evaluation of the impact of systemic changes in health care may contribute to the understanding of patient outcomes in perioperative medicine.
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1
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242.

Laparoscopic or open paediatric inguinal hernia repair - a systematic review.
Mahmood B, Christoffersen M, Miserez M, Bisgaard T
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Danish Medical Journal. 67(7), 2020 Jul 01.
[Journal Article. Systematic Review]
UI: 32734885
INTRODUCTION: Inguinal hernia repair is the most common surgical procedure in paediatric patients. Despite limited evidence, an increasing number of surgeons suggest laparoscopic repair as an alternative to the gold standard of open repair. This review critically analysed post-operative clinical outcome on open versus laparoscopic inguinal hernia repair in paediatric patients. Before initiating the study, recurrence was defined as the primary outcome, and secondary outcomes were early post-operative pain, operation time and surgical site infections.
METHODS: The PRISMA guidelines were followed. Using strict inclusion and exclusion criteria, the following databases were searched: MEDLINE, Cochrane Library, Web of Science and Embase (May 2019). Retrospective and uncontrolled studies were excluded.
RESULTS: Five studies were identified, four randomised controlled trials (n = 272) and one controlled prospective study (n = 85) which included a total of 357 patients. Generally, the studies included few patients, were highly heterogenic and were overall of moderate quality. With a follow-up time ranging from three months to 14 years, there was no difference in recurrence rate after unilateral open (0-2%) versus unilateral laparoscopic (0-4%) or bilateral open versus bilateral laparoscopic repair (n = 281; p > 0.05 in all studies). There were no other significant differences in any of the outcomes, including post-operative pain (p > 0.05).
CONCLUSIONS: There is no solid evidence that clinical outcome is improved after laparoscopic paediatric inguinal hernia repair compared with the gold standard.

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1
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243.

Difficulties and Coping Strategies of Kidney-transplant Recipients During Their Dark Postoperative Recovery Stage After Returning Home.
Yang FC, Chen HM, Pong SC, Chen CH, Wang SS, Chen CM
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Transplantation Proceedings. 52(10):3226-3230, 2020 Dec.
[Journal Article]
UI: 32636069
INTRODUCTION: Kidney Transplantation (KT) is the best treatment for end-stage renal disease to prolong patients' lives. To improve patients' postoperative survival rate and quality of life, postoperative care at home is vital. We explored the difficulties faced and coping strategies used by KT recipients during their dark postoperative recovery stage at home.
METHODS: This qualitative, exploratory study used a purposive sample, which was obtained from a leading medical center in Taiwan. We used a semi-structured interview guide to collect data through in-depth, face-to-face interviews. Data were content analyzed.
RESULTS: Fifty individuals were approached and agreed to participate (30 men, 20 women). Participants ' post-KT timeframe ranged from 2 to 28 years. Seven difficulties were reported: 1. physical discomfort and treatment side-effects; 2. concern about the impact of transplant failure; 3. uncertainty about the future; 4. unbearable economic pressure; 5. concerns about becoming a family burden; 6. feeling that life lacks a purpose; and 7. feeling isolated. Coping strategies included 1. seeking assistance from health care professionals, 2. thinking positively, 3. changing one's lifestyle, 4. setting goals to divert attention, 5. seeking psychological, and 6. seeking spiritual support.
CONCLUSIONS: By elucidating KT recipients' adaptability and coping strategies, we hope to improve their quality of life at home. Health care professionals should be aware of the difficulties faced by patients during their dark postoperative recovery stage and promote effective coping strategies. This study informs future research and has implications concerning the effective coordination of transplant medical teams.

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244.

Metabolic and Inflammatory Benefits of Reducing Preoperative Fasting Time in Pediatric Surgery. [Portuguese, English] Beneficios Metabolicos e Inflamatorios da Abreviacao do Jejum Pre-operatorio em Cirurgia Pediatrica. <Beneficios Metabolicos e Inflamatorios da Abreviacao do Jejum Pre-operatorio em Cirurgia Pediatrica.>
Carvalho CALB, Carvalho AA, Preza ADG, Nogueira PLB, Mendes KBV, Dock-Nascimento DB, Aguilar-Nascimento JE
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Revista do Colegio Brasileiro de Cirurgioes. 47:e20202353, 2020 Jun 03.
[Journal Article. Randomized Controlled Trial]
UI: 32578813
OBJECTIVE: To investigate the metabolic/inflammatory impact of reducing the preoperative fasting time in preschool children.
METHODS: Forty children were randomly assigned to a fasting group (absolute fasting after 00:00) and a carbohydrate (CHO) group (allowed to ingest, two hours before surgery, a carbohydrate-rich beverage). Blood samples were collected right before and after surgery to quantify the levels of albumin, interleukin-6, glucose, insulin, C-reactive protein and to calculate insulin resistance by the HOMA-IR index.
RESULTS: Preoperative fasting time in the CHO group were shorter than in the fasting group (2.49h vs. 11.24h, p <0.001). Pre- and post-surgical CRP levels were significantly lower in the CHO group (p = 0.05 and p = 0.02, respectively). The preoperative CRP/albumin ratios in the CHO group were lower than in the fasting group (p = 0.03). Four patients (21%) in the fasting group but none in the CHO group were hyperglycemic before surgery (p = 0.04). The two groups had similar levels of albumin, interleukin-6, insulin and HOMA index. There were no adverse events.
CONCLUSION: Reducing the preoperative fasting time with carbohydrate-rich beverages improves the perioperative metabolic and inflammatory responses of preschool children undergoing inguinal hernia surgery.
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1
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Collaborator Alias
Publisher
OBJETIVO: Avaliar os efeitos metabolicos e inflamatorios da abreviacao do jejum pre-operatorio em criancas pre-escolares.METODOS: Quarenta criancas foram prospectivamente randomizadas em um grupo chamado jejum (jejum absoluto a partir de 00:00h) e outro chamado de carboidrato (CHO - em que as criancas eram autorizadas a ingerir uma bebida contendo carboidrato duas horas antes da operacao). Foram colhidas amostras sanguineas no pre e pos-operatorio imediatos, para dosagens de albumina, interleucina 6, glicemia, insulina, proteina C reativa, e calculada resistencia a insulina pelo indice de HOMA-IR.RESULTADOS: O tempo de jejum pre-operatorio foi significativamente menor no grupo submetido a abreviacao do jejum (11:24h vs 2:49h, p<0,001). Os valores da PCR foram significativamente menores no grupo CHO, tanto no pre quanto no pos-operatorio (p=0,05 e p=0,02, respectivamente). Os valores da razao PCR/Albumina foram significativamente menores no grupo CHO no periodo pre-operatorio (p=0,03). Quatro pacientes (21%) do grupo jejum tornaram-se hiperglicemicos no pre-operatorio, enquanto nenhum teve hiperglicemia no grupo CHO (p=0,04). Nao houveram diferencas estatisticamente significativas nos valores de albumina, interleucina-6, insulina e indice de HOMA entre os grupos. Nao houve nenhum evento adverso no trabalho.CONCLUSAO: A abreviacao do jejum pre-operatorio atraves do uso de bebidas contendo carboidratos melhora a resposta metabolica e inflamatoria no peri-operatorio de criancas pre-escolares submetidas a cirurgia eletiva de herniorrafia inguinal.
Language: Portuguese
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245.

Robotic Inguinal Hernia Repair.
Edelman DS
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Surgical Technology International. 36:99-104, 2020 May 28.
[Journal Article]
UI: 32432334
INTRODUCTION: Laparoscopic inguinal hernia repair has certain advantages over open repair including less pain and earlier return to normal activity. Robotic surgery adds high definition visualization and articulating instruments. This enhanced dexterity can make laparoscopic hernia

repair more refined while obtaining a critical view of the myopectineal orifice that should lead to fewer recurrences and complications. A series of robotic, laparoscopic, inguinal hernia repairs by a single surgeon with extensive laparoscopic hernia experience at a single institution along with a review of the literature was undertaken to determine the role of robotic laparoscopic inguinal hernia repair in minimally invasive surgery.
MATERIALS AND METHODS: One thousand laparoscopic inguinal hernia operations were performed from April 2012 through March 2020. There were 420 cases of robotic trans-abdominal pre-peritoneal (TAPP) procedures done during that time. Hospital records and follow-up care were prospectively reviewed and data was collected for age, sex, American Society of Anesthesia (ASA) class, and operative time. Follow up was done at two weeks, eight weeks, and 16 weeks following surgery. All patients consented for study.
RESULTS: Ninety-four percent (94%) of the patients were male. Age averaged 57.8 years with a range of 18-85 years. ASA averaged 2.01 with comorbidities of hypertension, hypercholesterolemia, and GERD being the most common. Body mass index (BMI) was between 19-40.5 averaging 26.6. Sixty-three patients (15%) had an umbilical hernia repair done concomitantly. Operating room (OR) time ranged from 25-140 minutes, with an average of 54.36 minutes, and decreased as experience increased. One patient with a large, left scrotal hernia was converted to open, one patient developed perforated sigmoid diverticulitis seven days postoperative and four recurred indirectly after a direct hernia repair. Urinary retention was the most problematic postoperative occurrence.
CONCLUSIONS: Robotic inguinal hernia repair is safe and effective. 1) Proper training, including simulators and proctors, is necessary; 2) having the same operating room team and an interested first assistant at the OR table is very helpful; 3) the learning curve is about 50 patients; 4) postoperative narcotics are rarely more than three hydrocodone pills; 4) no fixation of the mesh is necessary, but fibrin sealant was used routinely in these patients; and 5) urinary retention is the most common postoperative issue and is best planned for by knowing the patients urinary history, use of peripheral alpha-blockers, and straight catheterization in the OR at the conclusion of the surgery. OR time was longer than standard laparoscopic herniorrhaphy but decreased with experience. The robotic technique allowed for an excellent view of the myopectineal orifice and appears to have a low complication rate.
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1
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Edelman, David S
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2020

246.

Audit of pre-operative antibiotic prophylaxis usage in elective surgical procedures in two teaching hospitals, Islamabad, Pakistan: An observational cross-sectional study.
Khan Z, Ahmed N, Rehman AU, Khan FU, Saqlain M, Martins MAP, Rahman H
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
PLoS ONE [Electronic Resource]. 15(4):e0231188, 2020.
[Journal Article. Multicenter Study. Observational Study]
UI: 32255809
An audit of the antibiotic prophylaxis in surgical procedures is the basic area of antimicrobial stewardship programme. The current research aimed to evaluate the adherence-proportion of the pre-operative antibiotic prophylaxis (PAP) practices in common elective surgical procedures. It

was an eight-month (January 2017 to August 2017) observational cross-sectional patients' treatment record-based study conducted at two tertiary care teaching hospitals of Islamabad, Pakistan. We investigated the three most commonly performed elective general surgical procedures at the hospitals in adults aged > 18 years with no previous infection or surgery. The required data were extracted from the medical charts. Current prescribing practices were compared with the standard prescribing guidelines. A total of 660 (Government Hospital (GH), n = 330 and Private Hospital (PH), n = 330) procedures were observed. The most commonly performed elective general surgical procedures were laparoscopic cholecystectomy 307/660 (46.5%), followed by direct inguinal hernia 197/660 (29.8%) and total thyroidectomy 156/660 (23.6%). Non-use of PAP was observed in 64/660 (9.7%) cases. PAP was given to 90.3% (n = 596/660) cases (300/330 (90.9%) patients in GH and 296/330 (89.7%) in PH; P = 0.599). Based on the existing guidelines, the choice of antibiotics was correct in only 4.2% (25/596) patients (10/300; 3.3% cases at GH and 15/296; 5% at PH). The appropriate use of antibiotics was significantly greater in direct inguinal hernia (n = 19/193; 9.8%) cases compared with that in total thyroidectomy (n = 4/152; 2.6%) and laparoscopic cholecystectomy (n = 2/251; 0.8%) cases; P = 0.001. Compliance to the timing was only 51% (n = 304/596) of the total patients received PAP which was significantly lower in GH 97/300 (32.3%) as compared with that in PH 207/296 (69.9%); P = 0.001. Administration timing of antibiotics was observed to be more appropriate in total thyroidectomy (n = 79/152; 51.9%) cases than in laparoscopic cholecystectomy (n = 130/251; 51.8%) and direct inguinal hernia (n = 95/193; 49.2%) cases; P = 0.001. The route and dose were appropriate in accordance with the guidelines in all cases (100%). Most of the patients received ceftriaxone, a third-generation cephalosporin that is no longer recommended by the latest international guidelines. The current analysis revealed an alarmingly poor adherence rate with the guidelines in the three elective surgical procedures at both hospitals. To improve the situation, training and awareness programs about the antimicrobial stewardship interventions on the institutional level may be valuable.
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Year of Publication
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247.

Laparoscopic orchiopexy of palpable undescended testes_ experience of a single tertiary institution with over 773 cases.
You J, Li G, Chen H, Wang J, Li S
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
BMC Pediatrics. 20(1):124, 2020 03 16.
[Journal Article]
UI: 32178653
BACKGROUND: Discuss the superiority of laparoscopic orchiopexy in the treatment of inguinal palpable undescended testes.
METHODS: Inclusion criteria: Preoperative examination and color Doppler ultrasound examination confirmed that the testes were located in the inguinal canal and could not be pulled into the scrotum, except for retractive and ectopic testes. The surgical steps were depicted as follow. The retroperitoneal wall was carved by ultrasonic scalpels, separates the spermatic vessels closed to the inferior pole of the kidney if necessary, dissects the peritoneum of vas deferens, cuts the testicular gubernaculum, and pulls back the testicle into the abdominal cavity. Besides, protect the vas deferens, and descend the testes to the scrotum and fix them without tension.
RESULTS: There were 773 patients with 869 inguinal undescended palpable testes, 218 cases on the left side, 459 cases on the right side and 96 cases with bilateral undescended testes, whose age ranged from 6 months to 8 years, with an average of 20 months. All testes were successfully operated, no converted to open surgery. The average operation time was (34.8 +/- 5.4) min. There were 692 testes have an ipsilateral patent processus vaginalis (89.5%); In 677 cases of unilateral cryptorchidism, 233 cases (34.4%) have a contralateral patent processus vaginalis, and laparoscopic percutaneous extraperitoneal closure the hernia sac carry out during the surgery. There was no subcutaneous emphysema during the operation, no vomiting, no abdominal distension, no wound bleeding and obvious pain after surgery, especially wound infection is rarely. Doppler ultrasound was evaluated regularly after surgery. The patients were followed up for 6 to 18 months. All the testes were located in the scrotum without testicular retraction and atrophy. No inguinal hernia or hydrocele was found in follow-up examination.
CONCLUSION: Laparoscopic orchiopexy manage inguinal palpable cryptorchidism is safe and effective, and there are obvious minimally invasive advantages. Furthermore, It could discover a contralateral patent processus vaginalis, and treat at the same time, which avoid the occurrence of metachronous inguinal hernia.
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1
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248.

Perioperative glycemic measures among non-fasting gynecologic oncology patients receiving carbohydrate loading in an enhanced recovery after surgery (ERAS) protocol.
Alimena S, Falzone M, Feltmate CM, Prescott K, Contrino Slattery L, Elias K
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International Journal of Gynecological Cancer. 30(4):533-540, 2020 04.
[Journal Article]
UI: 32107317
INTRODUCTION: Preoperative carbohydrate loading is an effective method to control postoperative insulin resistance. However, data are limited concerning the effects of carbohydrate loading on preoperative hyperglycemia and possible impacts on complication rates.
METHODS: A prospective cohort study was performed of patients enrolled in an enhanced recovery after surgery pathway at a single institution. All patients underwent laparotomy for known or suspected gynecologic malignancies. Patients who had been diagnosed with diabetes preoperatively and those prescribed total parenteral nutrition by their providers were excluded. Data regarding preoperative carbohydrate loading with a commercial maltodextrin beverage, preoperative glucose testing, postoperative day 1 glucose, insulin administration, and complications (all complications, infectious complications, and hyperglycemia-related complications) were collected. The primary endpoint of the study was the incidence of postoperative infectious complications, defined as superficial or deep wound infection, organ/space infection, urinary tract infection, pneumonia, sepsis, or septic shock.
RESULTS: Of 415 patients, 76.9% had a preoperative glucose recorded. The mean age was 60.5+/-12.4 years (range 18-93). Of those with recorded glucose values, 30 patients (9.4%) had glucose >=180 mg/dL, none of whom were actually given insulin preoperatively. Median preoperative glucose value was significantly increased after carbohydrate loading (122.0 mg/dL with carbohydrate loading vs 101.0 mg/dL without, U=3143, p=0.001); however, there was no relationship between carbohydrate loading and complications. There was a significantly increased risk of hyperglycemia-related complications with postoperative day 1 morning glucose values >=140 mg/dL (OR 1.85, 95% CI 1.07 to 3.23; p=0.03). Otherwise, preoperative and postoperative hyperglycemia with glucose thresholds of >=140 mg/dL or >=180 mg/dL were not associated with increased risk of other types of complications.
DISCUSSION: Carbohydrate loading is associated with increased preoperative glucose values; however, this is not likely to be clinically significant as it does not have an impact on complication rates. Preoperative hyperglycemia is not a risk factor for postoperative complications in a carbohydrate-loaded population when known diabetic patients are excluded.
PRECIS: While glucose increased with carbohydrate loading in non-diabetic patients, this was not associated with complications.

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Year of Publication
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249.

Paravertebral catheter versus EPidural analgesia in Minimally invasive Esophageal resectioN: a randomized controlled multicenter trial (PEPMEN trial).
Kingma BF, Eshuis WJ, de Groot EM, Feenstra ML, Ruurda JP, Gisbertz SS, Ten Hoope W, Marsman M, Hermanides J, Hollmann MW, Kalkman CJ, Luyer MDP, Nieuwenhuijzen GAP, Scholten HJ, Buise M, van Det MJ, Kouwenhoven EA, van der Meer F, Frederix GWJ, Cheong E, Al Naimi K, van Berge Henegouwen MI, van Hillegersberg R
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
BMC Cancer. 20(1):142, 2020 Feb 22.
[Clinical Trial Protocol. Comparative Study. Journal Article. Multicenter Study. Randomized Controlled Trial]
UI: 32087686
BACKGROUND: Thoracic epidural analgesia is the standard postoperative pain management strategy in esophageal cancer surgery. However, paravertebral block analgesia may achieve comparable pain control while inducing less side effects, which may be beneficial for postoperative recovery. This study primarily aims to compare the postoperative quality of recovery between paravertebral catheter versus thoracic epidural analgesia in patients undergoing minimally invasive esophagectomy.
METHODS: This study represents a randomized controlled superiority trial. A total of 192 patients will be randomized in 4 Dutch high-volume centers for esophageal cancer surgery. Patients are eligible for inclusion if they are at least 18 years old, able to provide written informed consent and complete questionnaires in Dutch, scheduled to undergo minimally invasive esophagectomy with two-field lymphadenectomy and an intrathoracic anastomosis, and have no contra-indications to either epidural or paravertebral analgesia. The primary outcome is the quality of postoperative recovery, as measured by the Quality of Recovery-40 (QoR-40) questionnaire on the morning of postoperative day 3. Secondary outcomes include the QoR-40 questionnaire score Area Under the Curve on postoperative days 1-3, the integrated pain and systemic opioid score and patient

satisfaction and pain experience according to the International Pain Outcomes (IPO) questionnaire, and cost-effectiveness. Furthermore, the groups will be compared regarding the need for additional rescue medication on postoperative days 0-3, technical failure of the pain treatment, duration of anesthesia, duration of surgery, total postoperative fluid administration day 0-3, postoperative vasopressor and inotrope use, length of urinary catheter use, length of hospital stay, postoperative complications, chronic pain at six months after surgery, and other adverse effects.
DISCUSSION: In this study, it is hypothesized that paravertebral analgesia achieves comparable pain control while causing less side-effects such as hypotension when compared to epidural analgesia, leading to shorter postoperative length of stay on a monitored ward and superior quality of recovery. If this hypothesis is confirmed, the results of this study can be used to update the relevant guidelines on postoperative pain management for patients undergoing minimally invasive esophagectomy.
TRIAL REGISTRATION: Netherlands Trial Registry, NL8037. Registered 19 September 2019.
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1
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250.

Association of Prescription Opioid Exposure and Patient Factors With Prolonged Postoperative Opioid Use in Opioid-Naive Patients.
Lanzillotta-Rangeley J, Clark A, Christianson A, Kalarchian MA
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
AANA Journal. 88(1):18-26, 2020 Jan.
[Journal Article]
UI: 32008614
The purpose of this research study was to identify factors associated with prolonged postoperative opioid use in opioid-naive patients in 2 domains: specific patient characteristics and exposure through postoperative opioid prescriptions. A retrospective analysis was conducted of electronic medical records of opioid-naive adult orthopedic surgical patients at a large academic medical center from January 1, 2012, through December 31, 2017. In this cohort, 4% continued to refill opioid prescriptions more than 90 days after their surgical procedure. Prolonged use was associated with an initial prescription that had an oral morphine milligram equivalent above 675. Receipt of opioid prescription refills was a significant predictor for receiving additional opioid prescriptions over time. Multivariate logistic regression indicated that the independent predictors of prolonged postoperative opioid use were alcohol abuse, black race, Medicaid insurance, and the following comorbidities: diabetes, mood disorder, hypertension, and chronic kidney disease. To decrease the rate of prolonged postoperative opioid use, clinical changes can be investigated, including collaborative perioperative pain management strategies using nonopioid pain control methods; perioperative patient screening; education of patients and clinicians; and close postoperative follow-up, especially in the most vulnerable populations.

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1
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Year of Publication
2020

251.

Microsurgical subinguinal varicocelectomy with spermatic cord double traction and vein stripping.
Tian RH, Zhao LY, Chen HX, Yang C, Li P, Huang YH, Wan Z, Zhi EL, Yao CC, Li Z
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Asian Journal of Andrology. 22(2):208-212, 2020 Mar-Apr.
[Journal Article. Research Support, Non-U.S. Gov't]
UI: 31793442
We retrospectively reviewed data for 286 patients with varicocele who underwent microsurgical subinguinal varicocelectomy from March 2015 to May 2017 in Shanghai General Hospital (Shanghai, China). In this surgical approach, the testis was delivered, and the gubernacular and external cremasteric veins were stripped. In addition, the spermatic cord was delivered downward with continuous double traction away from the external ring. The remaining procedure was similar to the conventional approach. We followed patients for at least 3 months and evaluated postoperative semen parameters, pain symptoms, and complications. We excluded data for 32 men due to inadequate follow-up (<3 months). Of the remaining 254 patients, 73 had oligoasthenospermia, 121 had nonobstructive azoospermia, and 60 had symptomatic varicoceles. Total progressive sperm counts increased in the oligoasthenospermic patients from a median preoperative value of 9.15 x 106 ml-1 to 25.33 x 106 ml-1 (n= 34), and 35.6% (26/73) initially oligoasthenospermic men contributed to unassisted pregnancies. Sperm returned to the ejaculate in 12.4% (15/121) azoospermia patients. In patients with scrotal pain (n = 60), 43 (71.7%) reported complete resolution of pain, 16 (26.7%) reported partial resolution, and 1 (1.7%) reported no change. No patients experienced varicocele recurrence. This double-traction strategy avoids opening the external oblique aponeurosis, and results in less damage and faster recovery. In addition, the stripping strategy eliminates potential damage to the testis caused by the varicose veins. Our results showed that microsurgical subinguinal varicocelectomy using spermatic cord double traction in conjunction with testicular delivery for vein stripping is a safe and effective approach for varicocele repair.
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252.

Perioperative Outcomes of Lower Extremity Revascularization for Rest Pain and Tissue Loss.
Tsay C, Luo J, Zhang Y, Attaran R, Dardik A, Ochoa Chaar CI
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Annals of Vascular Surgery. 66:493-501, 2020 Jul.
[Comparative Study. Journal Article]
UI: 31756416
BACKGROUND: Critical limb ischemia (CLI) is the clinical manifestation of severe peripheral artery disease presenting as rest pain (RP) and tissue loss (TL). Most studies compare CLI as a homogenous group with claudication with limited database studies specifically studying these differences. We hypothesize that CLI should be stratified into RP and TL because of significant differences in disease severity, comorbidities, and outcomes.
METHODS: The American College of Surgeons National Surgical Quality Improvement Program database from 2012 to 2016 was reviewed. All patients with a postoperative diagnosis of CLI undergoing femoral to popliteal bypass (FPB) with vein or graft were identified. Patients were stratified into cohorts based on International Classification of Disease (ICD)-9 or ICD-10 codes for RP or TL (gangrene or ulcer). Univariate and multivariate analyses were performed to examine 30-day mortality, morbidity, major amputation, and readmission adjusting for demographics, comorbidities, and procedural details.
RESULTS: There were 5,304 patients. Compared to RP, patients with TL were older (P < 0.0001) and more likely to be dependent (P < 0.0001). TL patients were also more likely to have diabetes (P < 0.0001), congestive heart failure (P < 0.0001), renal failure (P = 0.004), dialysis (P < 0.0001), history of wound infection (P < 0.0001), and sepsis (P < 0.0001). TL patients had higher American Society of Anesthesiologists class (P < 0.0001), were less likely to be transferred from home (P < 0.0001), and more likely to receive an FPB with vein (P = 0.03). Patients with TL had worse perioperative outcomes compared with RP in terms of pneumonia (P = 0.004), unplanned intubation (P = 0.009), cardiac arrest requiring cardiopulmonary resuscitation (P = 0.003), bleeding requiring transfusions (P < 0.0001), sepsis (P < 0.0001), septic shock (P = 0.02), and reoperation (P < 0.0001). TL was associated with significantly higher 30-day morbidity (P < 0.0001), 30-day mortality (P < 0.0001), major amputation (P = 0.0004), and readmission rates (P

= 0.005). Patients with TL compared with those with RP also had longer hospital stays (P < 0.0001) and days between operation to discharge (P < 0.0001). TL was independently associated with increased 30-day morbidity (OR: 1.16 [1.00-1.35]) and major amputation (OR: 2.48 [1.29-4.76]) compared with RP.
CONCLUSIONS: Patients with RP and TL have drastic differences that impact perioperative mortality and readmissions. TL is an independent predictor of 30-day morbidity and major amputation. The stratification of CLI into RP and TL can provide insight into variations in outcomes and provide a means to quantify the risks associated with the 2 manifestations of the disease.

Version ID
1
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253.

Perioperative outcomes after robotic versus vaginal surgery for pelvic organ prolapse.
Nguyen JN, Yang ST
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Journal of Robotic Surgery. 14(3):415-421, 2020 Jun.
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UI: 31332703
The objectives of the study were to compare post-anesthesia care unit opioid use and pain scores, surgical and hospitalization times, and perioperative adverse events rates following robotic sacrocolpopexy (RSC) versus transvaginal uterosacral ligament suspension (USLS). This was a retrospective analysis of women 18 years and older who underwent either robotic sacrocolpopexy (n = 87) or transvaginal uterosacral ligament suspension (n = 103) between January 1, 2015 to December 31, 2017 at Downey Medical Center by two surgeons. Data including nurses' verbal pain scores and opioid use were abstracted from electronic medical records. Adverse events were classified using the Clavien-Dindo scale. Women in the robotic group were older (62 +/- 8 years vs 58 +/- 11 years, p = 0.005), had higher rate of stage III or IV prolapse [49/87 (56%) vs 15/103 (15%), p < 0.0002], lower postoperative pain scores (2.6 +/- 1.8 vs 4.2 +/- 2.4, p < 0.0001), and used less opioids (26 +/- 17 mg morphine dose equivalent vs 35 +/- 24 mg morphine dose equivalent, p = 0.005) than those in the transvaginal group.

Readmissions and reoperations for adverse events were not significantly different between the RSC and USLS groups [5/87 (6%) vs 12/103 (12%), p = 0.16], respectively. Moreover, Dindo-Clavien scores of II or higher occurred at similar rates between the two groups [20/87 (23%) vs 26/103 (25%), p = 0.72]. However, patients had a higher rate of prolonged urethral catheterization following USLS (0/87) than RSC (6/103) (p = 0.03). Robotic sacrocolpopexy was associated with less immediate postoperative pain and opioid use compared to uterosacral ligament vaginal suspension.
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1
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Year of Publication
2020

254.

Novel Minimally Invasive Technique of Neovaginoplasty Using an Absorbable Adhesion Barrier.
Anagani M, Agrawal P, Meka K, Narayana RT, Bandameedipally R
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Journal of Minimally Invasive Gynecology. 27(1):206-211, 2020 01.
[Journal Article]
UI: 31228594
Our objective was to provide a minimally invasive neovaginoplasty technique to construct a nearly physiologic vagina to facilitate sexual functioning and appropriate vaginal length in patients with congenital vaginal agenesis. This retrospective study at a tertiary care hospital comprised 52 patients with congenital vaginal agenesis because of Mayer-Rokitansky-Kuster-Hauser syndrome or androgen insensitivity syndrome presented for vaginal reconstruction. Modified McIndoe vaginoplasty was done in all patients between 2010 and 2018 using a vaginal mold created with glove, nonadherent petroleum gauze, and Interceed absorbable adhesion barrier (Ethicon, Johnson & Johnson, Somerville, NJ) that was placed in the neovagina space created between the bladder and rectum for 7 days. Operative details, complications, length and width of the neovagina, and functional outcome were evaluated. The mean operation time was 35 minutes. The mean length of the constructed neovagina was 8.4 cmx3.4 cm at 6 weeks follow-up. Epithelialization was completed by 4 to 6 months. All patients reported satisfactory sexual activity with no pain and good mucosal sensitivity. This modified neovaginoplasty technique is easy to perform, involves painless postoperative dilatations as the cornerstone of treatment, and results in adequate secretion, allowing lubrication and acceptable physiologic results.

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1
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Year of Publication
2020

255.

Outcomes and impact of laparoscopic inguinal hernia repair versus open inguinal hernia repair on healthcare spending and employee absenteeism.
Rana G, Armijo PR, Khan S, Bills N, Morien M, Zhang J, Oleynikov D
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Surgical Endoscopy. 34(2):821-828, 2020 02.
[Journal Article. Research Support, Non-U.S. Gov't]
UI: 31139991
BACKGROUND: This study compares the impact of open (OIHR) versus laparoscopic (LIHR) inguinal hernia repair on healthcare spending and postoperative outcomes.
METHODS: The TRUVEN database was queried using ICD9 procedure codes for open, laparoscopic, and robotic-assisted IHR, from 2012 to 2013. Patients > 18 years of age and continuously enrolled for 12 months postoperatively were included. Demographics, patient comorbidities, postoperative complications, pain medication use, length of hospital stay, missed work hours, postoperative visits, and overall expenditure were collected, and assessed at time of surgery and at 30-, 60-, 90-, 180-, and 365-days postoperatively. Statistical analysis was conducted using SAS, with alpha = 0.05.
RESULTS: 66,116 patients were included (LIHR: N = 23,010; OIHR: N = 43,106). Robotic-assisted procedures were excluded due to small sample size (N = 61). The largest demographic was males between 55 and 64 years. LIHR had fewer surgical wound complications than OIHR (LIHR: 0.3%; OIHR: 0.5%, p = 0.007), less utilization of pain medication (LIHR: 23.3%; OIHR: 28.5%; p < 0.001), and fewer outpatient visits. In the 90-day postoperative period, LIHR had significantly fewer missed work hours (LIHR: 12.1 +/- 23.2 h; OIHR: 12.9 +/- 26.7 h, p = 0.023). LIHR had higher postoperative urinary complications (LIHR: 0.2%; OIHR: 0.1%; p < 0.001), consistent with the current literature. LIHR expenditures ($15,030 +/- $25,906) were higher than OIHR ($13,303 +/- 32,014), p < 0.001.
CONCLUSIONS: The results highlight the benefits of laparoscopic repair with regard to surgical wound complications, postoperative pain, outpatient visits, and missed work hours. These improved outcomes with respect to overall healthcare spending and employee absenteeism support the paradigm shift toward laparoscopic inguinal hernia repairs, in spite of higher overall expenditures.
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1

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Year of Publication
2020

256.

Study of dexmedetomidine in caudal block for children undergoing inguino-scrotal surgery.
Gautam B., Piya B., Karki D.
Embase
Kathmandu University Medical Journal. 18(69) (pp 68-73), 2020. Date of Publication: January-March 2020.
[Article]
AN: 2005087461
Background Caudal block is the most common anaesthetic technique employed in children for managing perioperative pain of inguino-scrotal surgery. However, despite using long-acting local anaesthetics, caudal analgesia lasts relatively shorter. Dexmedetomidine, an alpha-2 agonist, augments local anaesthetic action. Objective To assess the analgesic effect of caudal Dexmedetomidine. Method This is a randomized, double-blinded study conducted on otherwise healthy children (one to five years) undergoing elective inguino-scrotal surgery. General anaesthesia was administered and a laryngeal mask airway was inserted for assisting ventilation. The caudal block was applied using 0.8 milliliters/kilogram drug volume comprising either two milligrams/kilogram Bupivacaine in group A (n=42) or two milligrams/ kilogram Bupivacaine mixed with 0.75 micrograms/kilogram Dexmedetomidine in group B (n=42). Intraoperatively, inhaled Halothane, intravenous Fentanyl, fluids, and ventilation were titrated to maintain monitored hemodynamic variables within 15% from baseline values. The primary endpoint comprised the duration of analgesia, defined by a time when postoperative pain score (face, legs, activity, cry, consolability; FLACC scale) reached four out of ten. Perioperative events were studied for 24 hours. Student's t-test and Chi-square test were used for analysis, with p-value less than 0.05 considered as significant. Result Demographic, surgical, and anaesthetic characteristics were similar between the groups. Duration of analgesia was significantly prolonged in group B (group B, 413+/-101 minutes; group A, 204+/-40 minutes). The intraoperative requirement for

supplement Fentanyl was significantly reduced in group B. Adverse events were comparable between the groups. Conclusion Dexmedetomidine prolongs the duration of analgesia when mixed with caudal Bupivacaine, without increasing adverse events.

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Publisher
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Year of Publication
2020

257.

Zulu Men's Conceptions, Understanding, and Experiences of Voluntary Medical Male Circumcision in KwaZulu-Natal, South Africa.
Nxumalo C.T., Mchunu G.G.
Embase
American journal of men's health. 14(2) (pp 1557988319892437), 2020. Date of Publication: 01 Mar 2020.
[Article]
AN: 631165556
Voluntary Medical Male Circumcision (VMMC) is proven to reduce transmission of HIV/AIDS. Despite concerted efforts to scale up VMMC in men aged 18-49, the number of medically circumcised men in this age group remains suboptimal. Research has shown that several individual factors hinder and promote uptake of VMMC. The nature of these factors is not clearly understood within the dimensions of religion, culture and tradition, particularly in a low-income rural setting. This study aimed to analyze Zulu men's conceptions, understanding and experiences regarding VMMC in KwaZulu-Natal (KZN), South Africa. A qualitative phenomenographic study approach was used to collect data from 20 uncircumcised males at six different clinics that provide VMMC services. Ethical approval to collect data was obtained from the Biomedical Research Ethics Committee of the University of KZN (BREC - BE627/18). Individual in-depth face to face interviews were conducted using a semistructured interview guide. Audiotapes were used to record interviews which were transcribed verbatim and then analyzed manually. The conceptions regarding medical circumcision appeared to be related to religious and cultural beliefs surrounding circumcision and the historical traditional practice thereof. The understanding of males regarding VMMC was mainly attributed to HIV prevention; however, knowledge on the degree of partial protection appeared to be limited. An array of negative accounted in the form of complications such as poor wound healing and postoperative pain undergone by peers and other close influencers' accounted for participants' experiences of VMMC. Poor knowledge and negative experiences relating to VMMC could account for reasons why men choose not to undergo VMMC.
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32131678 [https://www.ncbi.nlm.nih.gov/pubmed/?term=32131678]
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Publisher
NLM (Medline)
Year of Publication
2020

258.

Perioperative management of circumcision in children: Is there a difference between African and European hospitals?.
Ghidini F., Virgone C., Madounkeng B.M., Franchella A., Vason M., Cumba D., Tognon C., Gamba P.
Embase
African journal of paediatric surgery : AJPS. 17(3 4) (pp 90-94), 2020. Date of Publication: 01 Jul 2020.
[Article]
AN: 633852355
Context: The circumcision is the most frequent procedure in paediatric surgery worldwide, performed for medical and ritual purposes. In developing countries, because of the difficult accessibility to healthcare, even a common procedure could be unsafe.
Aim(s): The aim of the article is to compare the perioperative and anaesthesiological management of circumcision in children between two Italian and two sub-Saharan African hospitals.
Material(s) and Method(s): Medical records of paediatric circumcision from January 2014 to December 2016 have been reviewed. The involved hospitals were: Padua (Italy), Ferrara (Italy), Sao Jose em Bor (Guinea Bissau) and Yaounde (Cameroun).
Result(s): In Padua, 77 circumcisions were performed, 19 of these (24.6%) were ritual. In 75 children (97.4%), locoregional anaesthesia (LRA) together with sedation was used; only one complication (1.3%) occurred. In Ferrara, 200 interventions were done, 140 (70%) ritual; general anaesthesia was administered to 183 (93.5%) patients. There were five complications (2.5%). In Bissau, 53 procedures were performed, 21 (39.6%) ritual; in 34 children (64.1%), LRA with sedation was preferred. Two complications (3.8%) were reported. In Yaounde, 60 children were circumcised, 15 (25%) for ritual purposes; in 51 (85%), only LRA was performed; there was only one (1.7%) complication. In the African hospital, no post-operative analgesia was administered.
Conclusion(s): Despite the different anaesthesiological techniques, the study shows no difference in rate of complications for the in-hospital setting. Training of the local medical team in pain management and post-operative care should be emphasised.
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33342841 [https://www.ncbi.nlm.nih.gov/pubmed/?term=33342841]
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Publisher

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Year of Publication
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259.

Ultra-Mini-Percutaneous Nephrolithotomy for the Treatment of Upper Urinary Tract Stones Sized between 10-20 mm in Children Younger Than 8 Years Old.
Sofimajidpour H., Zarei B., Rasouli M.A., Hosseini M.
Embase
Urology journal. 17(2) (pp 139-142), 2020. Date of Publication: 16 Mar 2020.
[Article]
AN: 631272619
PURPOSE: With the invention of miniature devices, it has been advised to apply less aggressive methods for the management of upper urinary tract stones, especially in children. In the recent years, ultra-mini percutaneous nephrolithotomy (UMP) has been used for the treatment of upper urinary tract stones in order to perform surgeries with less complications and more acceptable outcomes. Results reported from different medical centers have been promising. MATERIALS AND METHODS: Twenty-two children aged less than 8 years old with upper urinary stones sized between 10-20 mm underwent UMP. Inclusion criteria was solitary unilateral kidney stone, stone size between 10-20 mm, normal renal function tests, absence of any congenital malformations, and history of previous ESWL failure. Data including age, sex, side of kidney involvement, size of stone, location of stone, duration of surgery, duration of hospitalization, stone composition, need for blood transfusion, damage to adjacent organs, postoperative fever, septicemia after surgery, need for narcotics, further need for a complementary method, stone-free rate, pre and post-operative hemoglobin levels, and urinary leakage from the access tract were extracted from patients' medical files and were recorded.
RESULT(S): The mean age (+/- standard deviation) of children was 5.22 (+/-1.57) years. Fourteen (63.6%) patients were male. Fifteen (68.2%) renal stones were located in the right kidney, and 82% of patients had pelvis stones. 13 (59%) patients' stones were composed of calcium oxalate. Stone-free rate was 95.5%. In none of the cases urinary leakage, septicemia after surgery, injury to adjacent organs, and need for blood transfusions was reported.
CONCLUSION(S): Ultra-mini percutaneous nephrolithotomy is an efficient and safe method for treating urinary stones sized between 10-20 mm in children.
PMID
32180213 [https://www.ncbi.nlm.nih.gov/pubmed/?term=32180213]
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Publisher
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Year of Publication
2020

260.

Influence of Mesh Fixation on the Development of Postoperative Pain after Laparoscopic Inguinal Hernia Repair: A Single Surgeon Experience.
Etele EE., Neagoe R.M., Marton D., Sala D., Torok A.
Embase
Chirurgia (Bucharest, Romania : 1990). 115(5) (pp 609-617), 2020. Date of Publication: 01 Sep 2020.
[Article]
AN: 633330263
OBJECTIVE: Primary aim of the present article was to determine the relationship between mesh fixation methods and the occurrence of postoperative pain after laparoscopic inguinal hernia repair.
Material(s) and Method(s): 101 patients diagnosed with inguinal hernia benefited from elective laparoscopic treatment of the abdominal wall defect. Follow up was realized at one and three months after surgical intervention. The followed details contained clinical, surgical and pain-related data.
Result(s): Multivariable analysis resulted young adults (OR=4.226; p=0.0467), recurrent hernia (OR=4.862; p=0.0415) and use of fixation requiring surgical mesh (OR=4.226; p=0.0467) as significant risk factors in the development of chronic postoperative pain. During the follow up period, patients who benefitted of mesh fixation complained about significantly higher pain sensation (pain index at one month: SG=10.27; CG=5.07; p=0.0080; pain index at three months: SG=5.02; CG=1.42; p=0.0406). Concerning chronic postoperative pain syndrome, six patients from SG (12.76%) and only a single patient from CG complained after three months about pain index greater than 18.5 points, concluding that mesh fixation significantly increases the possibility of chronic postoperative pain syndrome (p=0.0455).
Conclusion(s): Mesh fixation methods during laparoscopic inguinal hernia repair seem to contribute to the development of chronic postoperative pain. Avoiding traumatizing mesh fixation methods could be a suitable option for surgeons.

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261.

Pediatric circumcision using n-butyl-cyanoacrylate plus MS monomer: Bacteriostatic and cosmetic advantages over suture.
Spinelli C., Bertocchini A., Leoni M., Calani C., Morganti R., Strambi S.
Embase
Surgical Practice. 24(4) (pp 139-143), 2020. Date of Publication: November 2020.
[Article]
AN: 2007513881
Purpose: The aim of this study is to compare the use of n-butyl-cyanoacrylate plus MS monomer (NBCA-MS) glue with suture in pediatric circumcision.
Material(s) and Method(s): Between January 2013 and January 2017, 160 consecutive pediatric patients (range 18 months-14 years, mean 7.5 years) underwent circumcision. Eighty patients were randomly allocated to the glue group and 80 to the suture group. In the glue group wound margins were approximated by n-butyl-cyanoacrylate plus MS monomer (NBCA-MS) glue while in

the suture group interrupted 5-0 polyglycolic acid stitches were used. Each group was randomized into two subgroups: forty patients (subgroup A) received antibiotics (6 days of amoxicillin/clavulanic acid) and 40 (subgroup B) patients did not receive any postoperative drug. Operative time, pain score, postoperative complications and cosmesis were statistically evaluated.
Result(s): The operation time was significantly higher in the suture group; pain severity and duration were not significantly lower in the glue group. In the 80 patients of the glue group no complications occurred; in the suture group 20 (25%) cases of wound edema and 6 (7.5%) infections occurred. Cosmesis evaluation 1 and 6 months postoperatively showed significantly better results in the glue group.
Conclusion(s): Our study demonstrates that NBCA-MS glue wound closure in pediatric circumcision is a safe and effective technique.

Status
Embase
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Publisher
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Year of Publication
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262.

Effects of sevoflurane combined with sufentanil on the outcome of children with indirect inguinal hernia.
Huang S., Luo L.
Embase
International Journal of Clinical and Experimental Medicine. 13(11) (pp 8455-8462), 2020. Date of Publication: 2020.
[Article]
AN: 2005528645
Objective: To explore the effects of sevoflurane combined with sufentanil on awakening time and pain degree in children with indirect inguinal hernia undergoing day surgery with laryngeal mask airway.
Method(s): Totally 167 children with indirect inguinal hernia treated in our hospital from March 2017 to December 2019 were chosen as study objects and divided into a research group (RG, 97 cases, patients were anesthetized with sevoflurane combined with sufentanil with laryngeal mask airway) and a control group (CG, 70 cases, patients were anesthetized with intravenous ketamine without intubation). Anesthesia indexes [anesthesia induction time, postoperative awakening time, stay time in postanesthesia care unit (PACU)] were observed. Heart rate (HR), mean arterial pres-sure (MA) and oxygen saturation (SpO2) were observed before anesthesia induction (T0), during laryngeal mask airway placement (T1), during skin cutting (T2) and at the end of surgery (T3). The face, legs, activity, cry, consola-bility behavioral tool (FLACC) was used to evaluate pain degree, Ramsay sedation score to evaluate sedation, and pediatric anesthesia emergence delirium (PAED) to evaluate agitation. Adverse reactions between the two groups after surgery were observed.
Result(s): The anesthesia induction time, postoperative awakening time and PACU stay time in RG were notably shorter than those in CG. After intervention, HR and MAP of children in RG

were remarkably better than those in CG at T1, T2 and T3. FLACC score and PAED score in RG were remarkably lower than those in CG, while Ramsay score in RG was evidently higher than that in CG. The incidence of adverse reactions in RG was remarkably lower than that in CG after intervention.
Conclusion(s): Sevoflurane combined with sufentanil is a safe and effective anesthesia scheme for children with indirect inguinal hernia undergoing day surgery with laryngeal mask airway, with high awaking quality and reduced postoperative postoperative pain.

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Embase
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263.

Stented Foley's catheter is a versatile, highly useful, easy-to-use way of double J stenting for a short time: A randomized study.
Vartak K.P., Raghuvanshi K., Raval A., Jain D.K.
Embase
Urological Science. 31(5) (pp 233-237), 2020. Date of Publication: September-October 2020.
[Article]
AN: 633359155
Purpose: A stented Foley's catheter was designed to combine two catheters into a single catheter to reduce the postureteroscopy (URS) pain and complications. This study evaluated the pain score and complications associated with the use of stented Foley's catheter in double J (DJ) stenting compared to the use of infant feeding tube (IFT) or a ureteric catheter in patients undergoing DJ stenting.
Material(s) and Method(s): A randomized parallel-group study was conducted in patients undergoing DJ stenting along with URS and stone fragmentation with pneumatic lithotripsy/LASER. The patients were randomized to be managed with either stented Foley's catheter or IFT along with Foley's catheter. The postoperative pain and complications were recorded.
Result(s): A total of 200 patients were randomized (1:1) into Group A (100 patients with stented Foley's catheter) and Group B (100 patients with IFT). Male preponderance was observed in Group A (73%) and Group B (69%). A significantly higher number of patients from Group B (n = 20) had pericatheter leakage compared to Group A (n = 2). In Group B, the pericatheter leakage resolved in three males and three females, whereas six males and eight females continued to leak, which is managed by diapers. The number of patients with no pain was higher in Group A (52%) than Group B (36%), whereas none of the patients from both groups had severe pain scores (V or VI).
Conclusion(s): The patients undergoing DJ stenting were tolerant to the use of stented Foley's catheter compared to those with the IFT.

Status
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264.

The pudendal nerve block for ambulatory urology: What's old is new again. A quality improvement project.
Okoro C., Huang H., Cannon S., Low D., Liston D.E., Richards M.J., Lendvay T.S.
Embase
Journal of Pediatric Urology. 16(5) (pp 594.e1-594.e7), 2020. Date of Publication: October 2020.
[Article]
AN: 2007501028
Introduction: Caudal epidural analgesia (CEA) is a common analgesic technique performed for pediatric penile surgeries; however, it has associated morbidity. The pudendal nerve block (PNB) has been described as an effective analgesic alternative to CEA.
Objective(s): In this quality improvement study, we aim to assess the efficacy of PNB as compared to CEA within our ambulatory surgery center (ASC). We demonstrate our initial experience employing PNB for ambulatory pediatric urology procedures. Study design: Using retrospective, non-randomized, time-series, observational data, a comparative effectiveness study of CEA and PNB was performed. Patients less than three years old, who underwent circumcision, hypospadias repair, congenital chordee repair, correction of penile angulation/torsion, and buried penis repair with or without scrotoplasty, between January 1, 2015-September 9, 2019 with either CEA or PNB in an ASC at a single institution were included. Standard protocols for local and postoperative analgesia were used. Outcome measures were post anesthesia care unit (PACU) pain scores, morphine rescue rates, and PACU length of stay (LOS). These were analyzed using statistical process control (SPC) charts; standard SPC rules were used to detect special cause variation.
Result(s): A total of 999 patients were identified; 746 (74.7%), 172 (17.2%) and 81 (8.1%) received CEA, ultrasound guided PNB (US-PNB) and landmark directed PNB (LD-PNB), respectively. Demographic data was comparable between the three cohorts. There was no special cause variation in the outcome measures between the CEA, US-PNB and LD-PNB cohorts for maximum pain score, morphine rescue rates and PACU LOS.
Discussion(s): Pain outcomes and PACU LOS were similar between the CEA, US-PNB and LD-PNB cohorts, suggesting equivalent postoperative pain control between these techniques within our cohort. Previous published data has reported lower postoperative pain scores with PNB as compared to CEA for patients undergoing circumcision and hypospadias repair.
Conclusion(s): PNB is non-inferior to CEA for analgesia for pediatric penile surgery, with LD-PNB being as effective as US-PNB. Given the simplicity and documented lower risk profile, PNB may be preferred to CEA for ambulatory pediatric urology procedures. [Table presented]

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Publisher
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Year of Publication
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265.

Inclusion of surgical antibiotic regimens in pediatric urology publications: A systematic review.
Snyder E., Mohan C., Michael J., Ross S.
Embase
Journal of Pediatric Urology. 16(5) (pp 595.e1-595.e7), 2020. Date of Publication: October 2020.
[Article]
AN: 2006962970
Background: Perioperative antibiotics prevent infections after surgery. Guidelines for antibiotic use allow the surgeon to balance the risks of adverse events and drug resistance with the benefit of reduced infection rates. However, due to a lack of evidence-based guidelines within pediatric urology, antibiotic practices vary widely. We performed a systematic literature review to investigate when and how authors report their antibiotic usage and infectious outcomes. Our aim was to analyze the available data on perioperative antibiotics and infection rates within pediatric urology.
Method(s): This systematic review was conducted in line with the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) guidelines. A search strategy was devised to identify reports of pediatric urology surgery and use of antibiotics or infectious outcomes. Embase and Medline were queried with no year restrictions with subject heading terms to identify publications on common pediatric urology surgeries. The procedures studied were hypospadias repair, pyeloplasty, orchidopexy, ureteral reimplant, and circumcision. Two independent reviewers screened all titles and abstracts, followed by relevant full texts, for eligibility. Articles were included if the procedure was performed on the majority of study patients, the procedure was performed by urologic surgeons, and the population studied was a pediatric population defined as 0-18 years of age. Case reports, meta-analyses, and editorials were excluded. Data was extracted by one independent reviewer into a preformatted database. Collected data included journal type, date of publication, patient demographics, preoperative and postoperative antibiotic details including regimens, and infection outcomes. The primary outcome was reporting of antibiotic use preoperatively or postoperatively. Secondary outcomes included: reporting of infection, antibiotic class and dosage. Since all studies were diverse, only qualitative analysis was conducted.
Result(s): We identified 1483 publications with 297 meeting inclusion criteria. Of these, 9% reported their use of preoperative antibiotics, and 34% reported their use of postoperative antibiotics. Only 6% of studies reported the specific antibiotic class, 15% reported duration, and 1% reported dosage and frequency. Infection outcomes were reported in 58% of studies. Only 57% of studies that reported on infection outcomes described their antibiotics practices.
Conclusion(s): Surgical antibiotic regimens and infection outcomes are infrequently included in pediatric urology studies, limiting the data available for development of evidence-based guidelines. Routine incorporation of antibiotic regimens, infection outcomes and adverse events in the pediatric urology literature will increase our ability to identify indications for antibiotics. Reporting of perioperative antibiotic outcomes in pediatric urology procedures will allow the eventual development of strong evidence-based guidelines. [Table presented]

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Publisher
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Year of Publication
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266.

Design and development of the Pediatric Urology Recovery after Surgery Endeavor (PURSUE) multicentre pilot and exploratory study.
Rove K.O., Strine A.C., Wilcox D.T., Vricella G.J., Welch T.P., Vanderbrink B., Chu D.I., Chaudhry R., Zee R.S., Brockel M.A.
Embase
BMJ Open. 10(11) (no pagination), 2020. Article Number: e039035. Date of Publication: 23 Nov 2020.
[Article]
AN: 633970965
Introduction Lower urinary tract reconstruction in paediatric urology represents a physiologically stressful event that is associated with high complication rates, including readmissions and emergency room visits. Enhanced recovery after surgery (ERAS) protocol is a set of multidisciplinary, perioperative strategies designed to expedite surgical recovery without adversely impacting readmission or reoperation rates. Early paediatric urology data demonstrated ERAS reduced complications in this population. Methods and analysis In 2016, a working group of paediatric urologists and anaesthesiologists convened to develop an ERAS protocol suitable for patients undergoing lower urinary tract reconstruction and define study process measures, patient-reported outcomes and clinically relevant outcomes in paediatric and adolescent/young adult patients. A multicentre, prospective, propensity-matched, case-control study design was chosen. Each centre will enrol five pilot patients to verify implementation. Subsequent enrolled patients will be propensity matched to historical controls. Eligible patients must be aged 4-25 years and undergoing planned operations (bladder augmentation, continent ileovesicostomy or appendicovesicostomy, or urinary diversion). 64 ERAS patients and 128 controls will be needed to detect a decrease in mean length of stay by 2 days. Pilot phase outcomes include attainment of >=70% mean protocol adherence per patient and reasons for protocol deviations. Exploratory phase primary outcome is ERAS protocol adherence, with secondary outcomes including length of stay, readmissions, reoperations, emergency room visits, 90-day complications, pain scores, opioid usage and differences in Quality of Recovery 9 scores. Ethics and dissemination This study has been registered with authors' respective institution review boards and will be published in peer-reviewed journals. It will provide robust insight into the feasibility of ERAS in paediatric urology, determine patient outcomes and allow for iteration of ERAS implementations as new best practices and evidence for paediatric surgical care arise. We anticipate this study will take 4 years to fully accrue with completed follow-up.

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Year of Publication
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267.

Ketorolac after colectomy for ulcerative colitis in children: An analysis of opioid utilization and postoperative complications.
Taylor M.A., West W.B., Guthery S.L., Deneau M., Short S.S.
Embase
Journal of Pediatric Surgery. 55(11) (pp 2393-2396), 2020. Date of Publication: November 2020.
[Article]
AN: 2005845870
Introduction: Enhanced recovery protocols include multimodal perioperative pain control and frequently include use of NSAIDs. There is conflicting evidence that ketorolac use in inflammatory bowel disease (IBD) may precipitate disease flares and postoperative complications. The outcomes of children who receive ketorolac in this setting are not well known. We sought to evaluate ketorolac utilization in children following colectomy for ulcerative colitis.
Method(s): All patients undergoing colectomy for ulcerative colitis between 2007 and 2017 at a tertiary children's hospital were reviewed. We collected patient age, duration of symptoms, operative details, medication utilization, length of stay, and postoperative complications. We performed a cohort comparison of these variables across patients who did vs. did not receive postoperative ketorolac.
Result(s): Sixty children were identified with median age at diagnosis of 12.6 years (IQR: 9.9-14.5). At colectomy, patients had a median PUCAI score of 60 (45-70), ESR 34 mm/h (15-50), hemoglobin 10.9 g/dL (9.3-12.9), and albumin 3.1 g/dL (2.4-3.8). Postoperatively, 45% (n = 27) received ketorolac. Patients in both cohorts had a similar length of stay, duration of opioid exposure, total morphine equivalents utilized, readmission rate, and unexpected return to the

operating room. There were no documented cases of postoperative bleeding, acute kidney injury, or disease related flares among children receiving ketorolac.
Conclusion(s): Administration of ketorolac after colectomy in IBD was not associated with an increase in any postoperative complications, though the study was underpowered to detect these differences. However, ketorolac administration did not lead to a decreased utilization of opioid analgesia. Further prospective research is necessary to understand whether ketorolac in this population is safe and offers benefit.
Type of Study: Retrospective study.
Level of Evidence: III

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32402465 [https://www.ncbi.nlm.nih.gov/pubmed/?term=32402465]
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Publisher
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268.

Implementation of a spinal anesthesia and sedation protocol that reliably prolongs infant spinal anesthesia: Case series of 102 infants who received spinal anesthesia for urologic surgery.
Handlogten K., Warner L., Granberg C., Gargollo P., Thalji L., Haile D.
Embase
Paediatric Anaesthesia. 30(12) (pp 1355-1362), 2020. Date of Publication: December 2020.
[Article]
AN: 2006960653
Background: The use of spinal anesthesia in infants is seeing resurgence as an alternative to general anesthesia.
Aim(s): Our primary aims are to describe our institution's experience introducing a spinal anesthesia and sedation protocol for infants undergoing urologic surgery, to describe methods of improving prolonged anesthesia, and to describe the failure rate of spinal anesthesia in these patients. Sedation was provided for some infants with intranasal dexmedetomidine +/- fentanyl.
Method(s): This is a retrospective case series examining infants aged 1-<14 months who received spinal anesthesia for circumcision, orchiopexy, orchiectomy, hypospadias repair, or epispadias repair. The electronic medical record was reviewed and compared with unmatched historical controls who received general anesthesia.
Result(s): A total of 230 patients underwent a urologic procedure; 102 patients received spinal anesthesia and 128 received general anesthesia. Length of surgical time with spinal anesthesia ranged from 4 to 189 minutes. The hospital length of stay was shorter in the spinal anesthesia group (median [IQR] of 5.3 hours [4.3, 7.2]) compared to the general anesthesia group (17.1 hours [15.6, 17.5]).The median bupivacaine dose was 0.75 mg/kg [0.67, 0.85]. There was one case in which cerebral spinal fluid was unable to be obtained, and one case that required conversion to general anesthesia after surgery had started. There were no cases of apnea, bleeding, infection, or neurologic compromise.
Conclusion(s): We describe the successful implementation of an infant spinal anesthesia and sedation protocol and a technique that uniquely provides prolonged surgical anesthesia with a

low failure rate. We also report shorter anesthesia time, surgical time, and recovery room length of stay in patients who received spinal anesthesia compared to general anesthesia.

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Publisher
Blackwell Publishing Ltd
Year of Publication
2020

269.

Outcome of multiple tract percutaneous nephrolithotomy for renal staghorn calculi.
Afzal U., Durrani A.S., Rahim J., Rana A.-U.-R., Khan H.M.Y.
Embase
Pakistan Journal of Medical and Health Sciences. 14(4) (pp 1216-1218), 2020. Date of Publication: October 2020.
[Article]
AN: 2010845675
Objective: To determine the frequency of stone clearance after multiple tract percutaneous nephrolithotomy for renal staghorn calculi Study Design: Descriptive case series Place and Duration of Study: Department of Urology, Shaikh Zayed Hospital, Lahore from 7th September 2016 to 7th March 2017. Methodology: One hundred patients with renal staghorn calculi of >20 mm in size and between 16 to 65 years of age were included. Multiple tract PCNL was done after completion of all investigations. All patients were given prophylactic antibiotics. Stone clearance post-operatively was assessed by CT-KUB. The stone free rate at 4 week interval was the endpoint of this study.
Result(s): There were 65 (65%) males while 35 (35%) were females. Age range was from 16 to 65 years with mean age of 40.12+/-14.54 years. Mean size of the stone was 25.69+/-3.00 mm. Most of the patients 54(54%) had the size of stone >25 mm, while 46(46%) patients had the size of stone >25 mm. Overall success rate with multiple tract PCNL was 86% in patients with renal staghorn calculi.
Conclusion(s): The multiple tracts PCNL is gold standard technique for staghorn calcului with reasonable operative duration, low morbidity and good success rate.

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Publisher
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Year of Publication
2020

270.

Prophylactic Peritoneal Drainage is Associated with Improved Fluid Output after Congenital Heart Surgery.
Pettit K.A., Schreiter N.A., Lushaj E.B., Hermsen J.L., Wilhelm M., Mahon A.C.R., Nelson K.L., DeGrave J.J., Marka N., Anagnostopoulos P.V.
Embase
Pediatric Cardiology. 41(8) (pp 1704-1713), 2020. Date of Publication: December 2020.
[Article]
AN: 2005722410
Infants undergoing congenital heart surgery (CHS) with cardiopulmonary bypass (CPB) are at risk of acute kidney injury (AKI) and fluid overload. We hypothesized that placement of a passive peritoneal drain (PPD) can improve postoperative fluid output in such infants. We analyzed 115 consecutive patients, age birth to 60 days, admitted to the PICU after CHS with CPB between 2012 and 2018. Patients who needed postoperative ECMO were excluded. Linear and logistic regression models compared postoperative fluid balances, diuretics administration, AKI, vasoactive-inotropic scores (VIS), time intubated, and length of stay after adjusting for pre/operative predictors including STAT category, bypass time, age, weight, and open chest status. PPD patients had higher STAT category (p = 0.001), longer CPB times (p = 0.001), and higher VIS on POD 1-3 (p <= 0.005 daily). PPD patients also had higher AKI rates (p = 0.01) that did not reach significance in multivariable modeling. There were no postoperative deaths. Postoperative hours of intubation, hospital length of stay, and POD 1-5 fluid intake did not differ between groups. Over POD 1-5, PPD use accounted for 48.8 mL/kg increased fluid output (95% CI [2.2, 95.4], p = 0.043) and 3.41 mg/kg less furosemide administered (95% CI [1.69, 5.14], p < 0.001). No PPD complications were observed. Although PPD placement did not affect end-outcomes, it was used in higher acuity patients. PPD placement is associated with improved fluid output despite lower diuretic administration and may be a useful postoperative fluid management adjunct in some complex CHS patients.

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Springer
Year of Publication
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271.

Low-power holmium laser enucleation of prostate can improve clinical efficacy on and postoperative quality of life of patients with prostatic hyperplasia.
Kuai L., Chen X., Hu J., Jin W., Dai Y.
Embase
International Journal of Clinical and Experimental Medicine. 13(12) (pp 9871-9877), 2020. Article Number: IJCEM0119755. Date of Publication: 2020.
[Article]
AN: 2005768557
Objective: This study aimed to analyze the effects of low-power holmium laser enucleation of the prostate (HoLEP) on the clinical efficacy and the quality of life (QOL) of patients with prostatic hyperplasia.
Method(s): One hundred and ten patients with prostatic hyperplasia, who received surgical treatment in our hospital from May 2017 to August 2019, were enrolled as research objects. According to different therapeutic methods, 56 cases in an observation group were treated with low-power transurethral HoLEP, and 54 cases in a control group were treated with transurethral resection of the prostate (TURP). The two groups were compared regarding perioperative indicators, efficacy, scores of the International Prostate Symptom Score (IPSS), pain severity, postoperative QOL scores, serum prostate specific antigen (PSA), and the incidence of complications.
Result(s): Intraoperative blood loss, the preserved time of installing catheter (PTIC), the postoperative time of flushing the bladder, and the total incidence of complications in the observation group were remarkably lower than those in the control group (P<0.05). The efficacy was also remarkably better in the observation group (P<0.05). Before operation, there were no significant differences between both groups in residual urine volume (RUV), scores of the 5-item version of the International Index of Erectile Function (IIEF-5), scores of the Chinese Index of Premature Ejaculation-5 (CIPE-5), IPSS scores, and QOL scores (P>0.05). After operation, scores of IIEF-5, CIPE-5, and QOL were remarkably higher but the IPSS scores and the RUV were remarkably lower in the observation group (P<0.05) than in the control group. In both groups, postoperative PSA was remarkably lower than preoperative PSA (P<0.05), both of which were not significantly different between the two groups (P>0.05).
Conclusion(s): Low-power HoLEP is effective in treating patients with prostatic hyperplasia and can obviously relieve their prostate symptoms, so it is of clinical application.

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Publisher
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Year of Publication
2020

272.

The Effect of Music Therapy, Hand Massage, and Kaleidoscope Usage on Postoperative Nausea and Vomiting, Pain, Fear, and Stress in Children: A Randomized Controlled Trial.
Bulut M., Kucuk Alemdar D., Bulut A., Salci G.
Embase
Journal of perianesthesia nursing : official journal of the American Society of PeriAnesthesia Nurses. 35(6) (pp 649-657), 2020. Date of Publication: 01 Dec 2020.
[Article]
AN: 632438668
PURPOSE: The objective of this study was to investigate the effects of music therapy, hand massage, and kaleidoscope usage on nausea and vomiting, pain, fear, and stress in 7-year-old to 11-year-old children after circumcision. DESIGN: This study was a prospective and randomized controlled trial.
METHOD(S): The study was conducted at the pediatric surgery unit in a hospital in Turkey. The children were assigned to four groups through randomization performed using a computer program: group 1 was the control group with children who received no intervention; group 2 received hand massage; group 3 were distracted using kaleidoscope; and group 4 received music therapy. FINDINGS: There was a significant difference between the postoperative pain scores of the children in the intervention and control groups after the intervention (P < .05). This difference was found to be caused by the music therapy and kaleidoscope methods. There was a significant difference between the intervention and control groups' postoperative fear and anxiety levels in favor of the kaleidoscope group after the intervention (P < .05). But, no significant difference was found between the groups for the children's postoperative vomiting and nausea levels after the intervention (P > .05).
CONCLUSION(S): Distraction with music therapy and kaleidoscope is recommended for use in the postoperative period in children with circumcision to reduce the severity of their pain, fear, and anxiety.

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273.

Effects of intraarticular ketamine combined with periarticular bupivacaine on postoperative pain after arthroscopic meniscectomy.
Sagir O., Tatar B., Ugun F., Demir H.F., Balkaya A.N., Meric G., Kocaoglu N., Koroglu A.
Embase

Joint diseases and related surgery. 31(3) (pp 589-596), 2020. Date of Publication: 2020.
[Article]
AN: 632955491
OBJECTIVES: This study aims to evaluate the effects of two different doses of intraarticular ketamine on visual analog scale (VAS) scores at rest and movement, time to first analgesic requirement, and 24-h morphine consumption in patients undergoing arthroscopic meniscectomy as well as to assess the frequency of postoperative nausea&vomiting, respiratory depression, pruritus, urinary retention, and constipation and to compare the time to discharge.
PATIENTS AND METHODS: This prospective randomized double-blind study was performed between August 2013 and August 2014 on 75 patients (32 males, 43 females; mean age 46.7+/-13 years; range, 18 to 75 years) with American Society of Anesthesiologists scores of I-II scheduled for unilateral meniscectomy. Patients were randomized to receive 0.5 mg.kg-1 ketamine (group K1), 1 mg.kg-1 ketamine (group K2) or saline (group S) to a total volume of 20 mL intraarticularly at the end of the surgery. All patients were performed periarticular 10 mL 0.5% bupivacaine infiltration. Visual analog scale at rest and during passive knee movement was used to evaluate pain both preoperatively and at postoperative 0, 30 min, and 1, 2, 4, 6, 12, and 24 h. Time to first analgesic requirement and morphine consumption were recorded.
RESULT(S): Visual analog scale scores at rest and during movement at postoperative 0 were significantly reduced in group K2 compared with group S ($p<0.05$). The first analgesic requirement time was significantly longer in group K1 (76.9+/-25.2 min) and group K2 (93.4+/-26.1 min) than group S (29.3+/-7.1 min). Morphine consumption was lower in group K2 compared to group K1 and group S at postoperative 30 min, and 1 and 2 h. However, 24-h morphine consumption was similar in all groups.
CONCLUSION(S): Intraarticular injection of 0.5 mg.kg-1 and 1 mg.kg-1 ketamine for postoperative pain management provided similar analgesic efficacy. However, high dose ketamine more noticeably decreased opioid requirement in the early postoperative period.
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274.

A Novel Use of Fully Absorbable PhasixTM Mesh for Laparoscopic Inguinal Hernia Repair.
Aldohayan A., Bamehriz F., Khalid Alghamdi G., Ahmed AlJunidel R., AlBalawi M., Zakaria Aldhayan A., AlShehri O.M.
Embase
JSLS : Journal of the Society of Laparoendoscopic Surgeons. 24(3) (no pagination), 2020. Date of Publication: 01 Jul 2020.
[Article]
AN: 632681045
Background and Objectives: An inguinal hernia is usually repaired with synthetic nonabsorbable mesh, resulting in collagen formation, chronic inflammation, and fibrosis, with significantly reduced hernia recurrence. However, chronic pain may affect the quality of life. Poly-4-hydroxybutyrate (P4HB) mesh was introduced to minimize complications, and starts to degrade in 12-18 months. This study assesses the consequences and results of patients undergoing transabdominal preperitoneal (TAPP) inguinal hernia repair using P4HB mesh (PhasixTM, C.R. Bard Inc., Murray Hill, NJ, USA).

Method(s): We performed a pilot study of laparoscopic TAPP repair for inguinal hernias using P4HB mesh in 15 patients (14 male and one female) with an average age of 55.8 y, and an average body mass index of 27.4 kg/m2. We assessed the recurrence rate and patients' chronic pain for 30 months, with institutional review board approval (E-19-3735). The study was conducted from January 2016 to July 2017 in Medical City, King Saud University. We measured postoperative pain, reactions, mesh sensation, discomfort, and recurrence.
Result(s): In 15 patients, we encountered no recurrence or mesh sensation, except in one patient, who experienced mild chronic inguinal pain for one year, without activity restrictions.
Conclusion(s): Laparoscopic TAPP inguinal hernia repair using P4HB mesh is safe for combined, direct (medial), and indirect (lateral) inguinal hernia, with no recurrence. P4HB absorbable mesh caused less chronic pain and discomfort. Longer follow-up, more patients and 15 patients repaired using synthetic mesh are necessary to assess the utility of P4HB for inguinal hernia repair globally.

PMID
32831545 [https://www.ncbi.nlm.nih.gov/pubmed/?term=32831545]
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Publisher
NLM (Medline)
Year of Publication
2020

275.

Comparison between mesh fixation and non-fixation in patients undergoing total extraperitoneal inguinal hernia repair.
Acar A., Kabak I., Tolan H.K., Canbak T.
Embase
Nigerian journal of clinical practice. 23(7) (pp 897-899), 2020. Date of Publication: 01 Jul 2020.
[Article]
AN: 632259708
Background: The most important advantages of laparoscopic hernia repair include less postoperative pain, good cosmetic results, and early return to daily activities. Different methods and mesh types are used in inguinal hernia repair.
Aim(s): The objective of this study was to evaluate the complications and recurrence rates in patients who underwent laparoscopic inguinal hernia repair with and without mesh fixation.
Subjects and Methods: A total of 183 patients who underwent total extraperitoneal (TEP) inguinal hernia repair in the general surgery clinic between January 2012 and January 2015 patients operated due to inguinoscrotal hernia and those lost to follow-up were excluded from the study. Patients were divided into two groups. Group 1 consisted of patients in whom 3D (Bard 3D Max) mesh was used and fixed with symphysis pubis absorbable tucker, while group 2 included patients without mesh fixation. All statistical analyses were performed using SPSS 22.0 statistical package software. The differences were considered statistically significant if the P value was less than 0.05.
Result(s): In the study, 178 patients were included. The median age was 48 years. Of all patients, 98 had right-sided, 72 left-sided, and eight bilateral hernias. The mean follow-up duration was 45 months. The demographic data between the groups were similar. Operation time was 51.82 +/- 18.87 min in group 1 and 52 +/- 19.92 in group 2 (P = 0.089). No statistically significant difference was found between both groups in terms of the development of early and late complications. Intraoperative complications, port-site hernia, and mortality were not seen in any patient.

Conclusion(s): TEP seems to be a safe and effective surgical approach in inguinal hernia treatment with acceptable operation times and postoperative results. It was determined that not performing mesh fixation in the TEP application did not cause a statistical increase in morbidity and recurrence rates.
PMID
32620716 [https://www.ncbi.nlm.nih.gov/pubmed/?term=32620716]
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Publisher
NLM (Medline)
Year of Publication
2020

276.

Surgical Experimentation by John Marion Sims in the Pre-Anaesthetic Era.
O'Connor M.
Embase
Journal of law and medicine. 27(3) (pp 527-534), 2020. Date of Publication: 01 Apr 2020.
[Article]
AN: 631763471
The reputation of the pioneering gynaecologist J Marion Sims has been brought into question by a scandal over experimental surgery on African American slave women. Sims attempted to find a surgical cure for vesico-vaginal fistulae - an obstetric injury resulting from bladder damage after obstructed labour. His statue was removed from Central Park, New York, in 2018 in deference to the public outcry regarding his racist behaviour. A debate has raged over failures of consent for up to 30 procedures on a single patient which were performed without anaesthesia on vulnerable young slave women. However, this may be an example of "presentism" whereby the "beliefs, attitudes and practices of the 21st century are anachronistically projected retrograde to the early 19th century". This column argues that there are two separate issues: namely, the proposition that slaves could not freely give consent and that the surgery was deliberately tantamount to torture. In the 1850s United States slaves had no civil rights and no adequate anaesthesia was available during the period of surgical experimentation between 1841 and 1845.
PMID
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Publisher
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277.

Risk Factors for Prolonged Mechanical Ventilation After Total Cavopulmonary Connection Surgery: 8 Years of Experience at Fuwai Hospital.

Luo Q., Su Z., Jia Y., Liu Y., Wang H., Zhang L., Li Y., Wu X., Liu Q., Yan F.
Embase
Journal of Cardiothoracic and Vascular Anesthesia. 34(4) (pp 940-948), 2020. Date of Publication: April 2020.
[Article]
AN: 2004691073
Objective: Prolonged mechanical ventilation (PMV) is closely associated with higher morbidity and mortality after total cavopulmonary surgery. The aim of the present study was to identify the clinical risk factors for PMV.
Design(s): A retrospective case-control study.
Setting(s): Fuwai Hospital.
Participant(s): The study comprised 504 patients who underwent total cavopulmonary surgery from 2010 to 2018.
Intervention(s): None.
Measurements and Main Results: The definition of PMV was derived from the Cox regression model for predicting postoperative length of hospital stay. Least absolute shrinkage and selection operator regression, logistic regression, and Cox regression were applied to identify predictors for PMV. Patients with mechanical ventilation time >9 hours were identified as having PMV. Independent predictors of PMV included age, intraoperative maximum vasoactive-inotropic score, minimal temperature during cardiopulmonary bypass, postoperative prothrombin time, alkaline phosphatase and total bilirubin levels, and postoperative fluid balance. These predictors also were achieved in the Cox regression for predicting the duration of mechanical ventilation. Patients with PMV were associated with increased blood transfusions, more consumption of vasopressin and antipulmonary hypertension medication, higher incidence of reintubation, more renal replacement treatment, longer intensive care unit stay, greater hospitalization costs, and more specialist visits.
Conclusion(s): Age at surgery, maximal vasoactive-inotropic score and minimal temperature during cardiopulmonary bypass, postoperative prothrombin time, alkaline phosphatase and total bilirubin levels, and postoperative fluid balance were demonstrated to be independent predictors of PMV. Adopting a comprehensive strategy of perioperative management that targets the identified risk factors might significantly lower the risk of PMV and improve in-hospital outcomes, and furthermore, patients with PMV might need more specialist visits.

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31983510 [https://www.ncbi.nlm.nih.gov/pubmed/?term=31983510]
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(Zhang) Department of Anesthesiology, Chongqing Hospital of Traditional Chinese Medicine, Chongqing, China
Publisher
W.B. Saunders
Year of Publication
2020

278.

Spillover Effect of Opioid Reduction Interventions From Adult to Pediatric Surgery.
McGee L.M., Kolli A., Harbaugh C.M., Howard R.A., Englesbe M.J., Brummett C.M., Waljee J.F., Gadepalli S.K.
Embase
Journal of Surgical Research. 249 (pp 18-24), 2020. Date of Publication: May 2020.
[Article]
AN: 2004512232
Background: Procedure-specific prescribing guidelines and trainee education have reduced opioid overprescribing in adult surgical patients, but tailored interventions do not yet exist for children. It is unknown what effect these adult interventions have had on postoperative opioid prescribing in children at the same institution, where trainees rotate across both adult and pediatric services.
Material(s) and Method(s): This retrospective study of patients (<18 y) undergoing pediatric surgery (PS), pediatric otolaryngology (ENT), or pediatric urology (URO) procedures at a single tertiary academic center assessed opioid doses per patient before (January 01, 2015 to September 30, 2016) and after (January 01, 2017 to March 31, 2018) opioid prescribing guidelines and trainee education were instituted for adult laparoscopic cholecystectomy. Patient demographics, postoperative opioid prescribing, opioid refills, and emergency department (ED) visits <21 d after surgery were compared using chi-squared analyses and t-tests. Interrupted time-series analyses (ITSA) assessed changes in the rate of opioid prescribing pre- and postintervention for each subspecialty.
Result(s): There were 3371 patients preintervention and 2439 patients postintervention. After the intervention, fewer patients were prescribed opioids (ENT: 97% versus 93%, P < 0.001; URO: 98% versus 94%, P < 0.001; PS: 61% versus 25%, P < 0.001) and fewer opioid doses were prescribed in each prescription (ENT: 63.8 +/- 26.1 versus 50.8 +/- 22.0 doses, P < 0.001; URO: 33.5 +/- 23.4 versus 22.1 +/- 11.3, P < 0.001; PS: 20.4 +/- 12.8 versus 13.8 +/- 11.4 doses, P < 0.001). There were no changes in opioid refill or ED visit rates postintervention. A decreasing rate in ENT prescribing was seen preintervention, with no significant change postintervention (-2.3 +/- 1.1 versus -3.3 +/- 0.7; P = 0.24). Whereas, the rate of decrease in PS and URO prescribing significantly slowed postintervention (PS: -2.0 +/- 0.1 versus -0.9 +/- 0.1, P < 0.001; URO: -4.2 +/- 0.2 versus -2.3 +/- 0.5, P = 0.005).
Conclusion(s): Opioid prescribing rates are decreasing, but adult interventions did not achieve reductions in pediatric opioid prescribing at the same institution. There was no concomitant rise in postoperative ED visits or opioid refills as prescribing declined, indicating that the risks of reducing opioid prescriptions may be minimal. Development of evidence-based, procedure-specific prescribing guidelines that specifically address pediatric patients are needed to effectively minimize opioid overprescribing in this population.

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31918326 [https://www.ncbi.nlm.nih.gov/pubmed/?term=31918326]
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Publisher
Academic Press Inc. (E-mail: apjcs@harcourt.com)
Year of Publication
2020

279.

Extraperitoneal cesarean, is it safe and comfortable?.
Karaaslan O., Turkyilmaz G., Simsek E.
Embase
Eastern Journal of Medicine. 25(4) (pp 530-534), 2020. Date of Publication: 2020.
[Article]
AN: 2005108584
We aimed to show that extraperitoneal cesarean delivery (EPCD) is more advantageous than trans peritoneal cesarean delivery (TPCD). Sixty cases analyzed either EPCD or TPCD were included in this study. Patients with suspected placental invasion anomalies (placenta accreta, increta or percreta), placenta previa, a history of midline uterine incision, multiple pregnanci es, previous cesarean section, previous major abdominal surgery, delivery before 34 weeks of gestation or fetal macrosomia (estimated fetal weight >4500 g) were excluded. The endpoints were the duration of the operation, nausea and vomiting during the operation, postoperative nausea and vomiting, the number of an algesic medications, postoperative shoulder pain, postoperative gas/stool discharge time, complete blood count (CBC), urinary dysfunction, and neonatal outcomes . Results TPCD patients suffered significantly more intraoperative nausea (10% vs. 33.3%, p:0.03) and postoperative vomiting (0% vs. 13.3%, p: 0.04) compared to TPCD group. There was no significant difference in intraoperative vomiting and postoperative nausea rates between the two groups (p:0,282).The duration of the operation was shorter in TPCD than EPCD groups (25,5 minutes vs. 28,7 minutes, p=0.01). After the operation, significantly fewer analgesic drugs were used in the EPCD than the TPCD groups (p: 0.01). The duration between defecation and operation was significantly shorter in the EPCD group compared to TPCD group (p: 0,042). Postoperative shoulder pain and flatulating time were similar between the two groups. There was no significant difference in urinary symptoms after six weeks of the operation between the two groups (p:0,690). No significant difference was found for neonatal outcomes between each groups. EPCD reduces postoperative pain, analgesic requirement, nausea, vomiting, and bowel dysfunction in cesarean patients without an increase in significant complications.

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Publisher
Yuzuncu Yil Universitesi Tip Fakultesi
Year of Publication
2020

280.

Clinical efficacy of enhanced recovery after surgery in percutaneous nephrolithotripsy: a randomized controlled trial.
Li Q., Wan L., Liu S., Li M., Chen L., Hou Z., Zhang W.
Embase
BMC Urology. 20(1) (no pagination), 2020. Article Number: 162. Date of Publication: 01 Dec 2020.
[Article]
AN: 2007026367
Background: To evaluate the feasibility, safety, applied value and efficacy of enhanced recovery after surgery (ERAS) for PCNL for the treatment of renal calculi. Although the ERAS is applied for many urological diseases, its application in percutaneous nephrolithotripsy (PCNL) is still limited.
Method(s): This was a prospective study of patients admitted to hospital January and December 2018 and who were only diagnosed with renal calculi and excepted for serious or uncontrollable basic diseases and patients with multiple operation history and medication history. Patients were randomized 1:1 to the ERAS and traditional operation groups starting on the day before operation and end on the day of discharge. Each group was 118 cases. The stone clearance rate, visual analogue scale (VAS) pain score, the occurrence of perirenal hematoma and effusion, the incidence of extravasation of urine, the incidence of fever, bleeding and blood transfusion, and postoperative hospital stay were observed.
Result(s): The stone clearance rates were similar between the two groups (ERAS: 93.2% (109/117) vs. traditional: 89.8% (106/118), P = 0.800). The operation time was similar in the two groups (ERAS: 54 +/- 12 vs. traditional: 58 +/- 11 min, P = 0.656). VAS pain score that was 0.79 +/- 0.76 in the ERAS group at 4 h after surgery and was significantly lower than 2.79 +/- 0.98 in the traditional group (P < 0.0001). The total complication rate was 15 cases in the ERAS group and 22 cases in the traditional group (P = 0.573). There were no difference in costs (21,348 +/- 2404 vs. 21,597 +/- 2293 RMB, P = 0.529).
Conclusion(s): ERAS perioperative management in PCNL was feasible, was without additional complications, and had well economic and social benefits. It is worth of clinical promotion and application.

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33081762 [https://www.ncbi.nlm.nih.gov/pubmed/?term=33081762]
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Publisher
BioMed Central Ltd
Year of Publication
2020

281.

Ultrasound-guided ilioinguinal-iliohypogastric block (ILIHB) or perifocal wound infiltration (PWI) in children: A prospective randomized comparison of analgesia quality, a pilot study.
Grosse B., Eberbach S., Pinnschmidt H.O., Vincent D., Schmidt-Niemann M., Reinshagen K.
Embase
BMC Anesthesiology. 20(1) (no pagination), 2020. Article Number: 256. Date of Publication: 03 Oct 2020.
[Article]

AN: 633027286
Background: Ilioinguinal-iliohypogastric block (ILIHB) is a well-established procedure for postoperative analgesia after open inguinal surgery in children. This procedure is effective and safe, especially when ultrasound is used. Data availability for comparing ultrasound-guided blocks versus wound infiltration is still weak. The study was designed to determine the efficacy of ultrasound-guided ILIHB (US-ILIHB) on postoperative pain control in pediatric patients following a inguinal daycase surgery, compared with perifocal wound infiltration (PWI) by the surgeon.
Method(s): This randomized, double-blinded trail was conducted in pediatric patients aged from 6 months to 4 years. The total number of children included in the study was 103. Patients were allocated at random in two groups by sealed envelopes. The ILIHB group recieved 0,2% ropivacain for US-ILIHB after anesthesia induction. The PWI group recieved 0,2% ropivacain for PWI performed by a surgeon before wound closure. Parameters recorded included the postoperative pain score, pain frequency, time to first analgesics and consumption of analgesics.
Result(s): US-ILIHB significantly reduced the occurrence of pain within the first 24 h after surgery (7.7%, p = 0.01). Moreover, the pain-free interval until administration of the first dose of opioids was 21 min longer, on average (p = 0.003), following US-ILIHB compared to perifocal wound infiltration. 72% of children who received US-ILIHB did not require additional opioids, as compared to 56% of those who received PWI.
Conclusion(s): Thus our study demonstrates that US-ILIHB ensures better postoperative analgesia in children and should be prioritized over postoperative PWI. Trail registration: UIHBOPWIIC, DRKS00020987. Registered 20 March 2020-Retrospectivley registered.

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33010803 [https://www.ncbi.nlm.nih.gov/pubmed/?term=33010803]
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Publisher
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Clinical Trial Number
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Year of Publication
2020

282.

Evaluation of Short-term Postoperative Complications According to the Clavien-Dindo Classification System in Thermocautery-assisted Circumcision Cases. Termokoter Yardimli Sunnet Olgularinda Kisa Sureli Postoperatif Komplikasyonlarin Clavien-Dindo Siniflandirma Sistemine Gore Degerlendirilmesi <Termokoter Yardimli Sunnet Olgularinda Kisa Sureli Postoperatif Komplikasyonlarin Clavien-Dindo Siniflandirma Sistemine Gore Degerlendirilmesi.>
Olcucu M.T., Teke K.
Embase
Journal of Urological Surgery. 7(3) (pp 218-226), 2020. Date of Publication: April 2020.

[Article]
AN: 2007744664
Objective: Circumcision is one of the most performed surgical procedures in the world. This study is a retrospective study on the short-term postoperative complications after a thermocautery-assisted circumcision on a series of patients according to the Clavien-Dindo classification system (CDCS).
Material(s) and Method(s): A total of 2.356 male thermocautery-assisted circumcision cases, performed by two urologists in a hospital, were examined retrospectively. The mean age, type of anesthesia, peri- and postoperative complications, durations of the procedures, mean number of sutures, cohesive bandage requirements, and mean recovery times were evaluated.
Result(s): The age of the patients ranged from 1 to 32 years with the mean age being 8.33 years. While 1.943 patients (82.47%) were only locally anesthetized, the remaining 413 (17.53%) were sedated in addition to local anesthesia. The mean values of the operative time, suture count, total requirement of cohesive bandages, and recovery time were 5.19+/-1.38 min (range of 4-20), 5.71 (range of 4-12), 69 (2.92%), and 6 days (range of 4-25), respectively. The short-term postoperative complications of 1.573 patients who returned to the hospital for a physical examination after being discharged were edema (mild, moderate, and severe), bleeding (simple and hematoma-causing), and infection (mild, moderate, and serious). The postoperative complications were adapted to the CDCS as grade 1 (638 patients, 40.55%), grade 2 (12 patients, 0.76%), grade 3 (6 patients, 0.38%), grade 4 (0 patients, 0%), and grade 5 (0 patients, 0%). There was no statistically significant difference between the patients in terms of complications adapted to the CDCS who received local anesthesia and those who received sedation + local anesthesia ($p>0.05$). Additionally, there was no significant difference in the development of penile edema between the patients who were sutured with Vicryl Rapide and normal Vicryl ($p>0.05$).
Conclusion(s): Our retrospective results indicate that thermocautery-assisted circumcision has a short operative time and is tolerable despite its short-term complications. Thermocautery-assisted circumcision may be a useful method in regions where circumcision is common.

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Embase
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Publisher
Galenos Publishing House (E-mail: info@balkanmedicaljournal.org)
Year of Publication
2020

283.

Comparing the efficacy of paracetamol, diclofenac, and ketorolac on post-appendectomy outcomes in children and adolescents.
Majeed M.N.A., Anwer Z.M.
Embase
Iraqi Journal of Pharmaceutical Sciences. 29(1) (pp 123-133), 2020. Date of Publication: January 2020.

[Article]
AN: 2007358956
Acute appendicitis is one of the most frequent abdominal conditions that face children population and needs urgent surgical intervention and appendectomy until now represent standard treatment for uncomplicated cases of appendicitis. Nausea, vomiting and pain after surgery are the most frequent issues facing patients and affecting patient quality of life and responsible for many cases of readmission after surgery. Ketorolac and diclofenac represent the most commonly prescribed non-steroidal anti-inflammatory used in postoperative setting and they cause many side effects as gastrointestinal, kidney and cardiac adverse effect in addition to increased risk of bleeding. Paracetamol is currently among the most frequently prescribed medication worldwide and it can be used safely for all age groups. This study aimed to compare the analgesic efficacy and safety of paracetamol, diclofenac, and ketorolac when used after appendectomy and to assess their efficacy regarding nausea and vomiting in children and adolescents. A randomized, single-blinded, comparative, observational prospective clinical study was carried out on patients diagnosed with acute appendicitis and assigned for emergent appendectomy between October 2018 to May 2019 in Al-Zahraa Teaching Hospital in Al-Najaf province, Iraq.120 patients were randomly distributed into three groups who received diclofenac sodium suppositories (2mg/kg), IV Paracetamol)15mg/ kg every 6 hr.(, and IV Ketorolac)0.5mg/ kg(immediately after surgery. All patients were observed for pain, nausea and vomiting and bleeding. Patients received ketorolac had a high percentage of the decrease in pain score between 30 and 60 min. after surgery, while paracetamol was the next and diclofenac sodium was the last. Regarding nausea and vomiting after surgery, ketorolac had higher percentage of the decrease in nausea, vomiting score during first day after surgery followed by diclofenac and paracetamol respectively. The present study also showed that there is no significant difference between groups regarding bleeding after surgery. It is concluded that ketorolac has higher analgesic efficacy compared with paracetamol and diclofenac with no risk of nausea and vomiting and bleeding when used after appendectomy.

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Publisher
University of Baghdad - College of Pharmacy
Year of Publication
2020

284.

Enhanced recovery after surgical correction of adolescent idiopathic scoliosis.
Julien-Marsollier F., Michelet D., Assaker R., Doval A., Louisy S., Madre C., Simon A.-L., Ilharreborde B., Brasher C., Dahmani S.
Embase
Paediatric Anaesthesia. 30(10) (pp 1068-1076), 2020. Date of Publication: 01 Oct 2020.
[Article]
AN: 2006004693
Background: Few publications in the literature examine enhanced recovery after scoliosis surgery (ERAS) in children, despite significant scientific interest in adults. The objective of the current study was to describe an ERAS protocol for surgical correction of adolescent idiopathic scoliosis (AIS) and its results.

Method(s): ERAS outcomes were measured in two patient cohorts. Historical controls and ERAS groups were selected from patients managed for scoliosis surgery in 2015 and 2018, respectively. The ERAS protocol included fasting minimization, carbohydrate loading, the avoidance of background morphine infusions, perioperative opioid-sparing protocols, the use of a cooling brace, early physiotherapy, feeding and oral medications, and the early removal of urinary catheters and surgical drains. The main outcome of the study was hospital length of stay.
Result(s): Overall, 82 controls and 81 ERAS patients were recruited. ERAS protocols were observed in over 80% of patients for almost items. Median length of hospital stay was significantly lower in the ERAS group (- 3 [95% confidence interval: -2; -4] days). Median morphine consumption was reduced by 25% and 35% on days 2 and 3, respectively. The incidence of PONV did not differ between the two groups, and the incidence of constipation decreased slightly but significantly in the ERAS group on day 2. Pain intensity at rest and movement were lower in the ERAS group at day 2 and 3.
Conclusion(s): The current study suggests an ERAS protocol after adolescent idiopathic scoliosis surgery is associated with reduced hospital length of stay and improved postoperative care.

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Blackwell Publishing Ltd (E-mail: info@royensoc.co.uk)
Year of Publication
2020

285.

Modified Circumcision Using the Disposable Circumcision Suture Device in Children: A Randomized Controlled Trial.
Rao J.-M., Huang H., Chen T., Yang C.-G., Pan C.-Z., Deng G.-C., Shen L.-J., Qian X.-H., Peng M.-K., Zhou H.-D., Peng H.-L.
Embase
Urology. 143 (pp 206-211), 2020. Date of Publication: September 2020.
[Article]
AN: 2007103774

Objective: To evaluate and compare the surgical outcomes and complications of the modified circumcision using disposable circumcision suture device (device group) and the conventional dorsal slit circumcision (conventional group) in children.
Method(s): A total of 284 patients were randomized to either device group or conventional group. All patients were preoperatively assessed and evaluated at 4 weeks after surgery. The perioperative data and postoperative outcomes were compared between the 2 groups.
Result(s): No statistical differences were observed in the average age and indications between the 2 groups preoperatively (P >.05). Compared with the conventional group, patients in the device group were shorter mean operative time, less blood loss, lower intraoperative and postoperative pain score, faster incision healing time and a higher satisfaction rate of penile cosmetic appearance (P <.01). Similarly, the incidences of complication were significantly lower in the device group than in the conventional group (4.3% vs 12.3%, P <.05).
Conclusion(s): The modified circumcision using disposable circumcision suture device is a simple, safe, faster, and effective procedure and may become the attractive alternative to the conventional technique for the children, with a relatively lower complication rate and better cosmetic results. With the improvement of disposable circumcision suture device, the modified circumcision using disposable circumcision suture device has the potential to be widely used in the world.

PMID
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286.

Porcine Small Intestinal Submucosa Mesh to Treat Inguinal Hernia in Young Adults Using Laparoscopic Inguinal Hernia Repair: A Retrospective Controlled Study.
Liu Y., Cao Z., Yang H., Shen Y., Chen J.
Embase
Surgical Laparoscopy, Endoscopy and Percutaneous Techniques. 30(4) (pp 367-370), 2020.
Date of Publication: 01 Aug 2020.
[Article]
AN: 631822355
Background: The authors evaluated the effects and clinical value of small intestinal submucosa (SIS) mesh to treat inguinal hernia in young adults by the laparoscopic method.
Method(s): The clinical data of 357 cases with inguinal hernia using SIS mesh in our hospital were analyzed retrospectively from June 2014 to June 2018. All cases were divided into 2 groups according to the surgical method. Operation time, hospital stay, cost, postoperative complications, and complications during follow-up were analyzed.
Result(s): Of the 357 patients, 202 (56.6%) underwent Lichtenstein repair and 155 (43.4%) underwent transabdominal preperitoneal (TAPP) repair. Operation time and hospital costs of the Lichtenstein group were significantly lower compared with the TAPP group (P<0.05). The

incidence of seroma in the Lichtenstein group was lower than that in the TAPP group at 1 week, 1 month, and 3 months postoperatively with significant differences (P<0.05). Perioperative pain scores in the Lichtenstein group were higher than the TAPP group (P<0.05). No statistical difference was observed for hospital stay between 2 groups (P>0.05). In the Lichtenstein group, 1 case recurred during the follow-up period (0.5%). No intestinal obstruction or intestinal fistula occurred in any patient during the follow-up period.
Conclusion(s): The effect of SIS mesh was positive whether the patient underwent a Lichtenstein or TAPP method. Seroma was more common in the TAPP method that may cause lower postoperative pain. Therefore, we recommend individualized treatment.

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287.

Single-Port Robot-Assisted Dismembered Pyeloplasty With Mini-Pfannenstiel or Peri-Umbilical Access: Initial Experience in a Single Center.
Lenfant L., Wilson C.A., Sawczyn G., Aminsharifi A., Kim S., Kaouk J.
Embase
Urology. 143 (pp 147-152), 2020. Date of Publication: September 2020.
[Article]
AN: 2006942357
Objective: To assess the feasibility and describe the surgical technique for single-port robotic-assisted laparoscopic pyeloplasty using the new da Vinci SP surgical platform (Intuitive Surgical Inc., Sunnyvale, CA), and to describe the approach through a mini-pfannenstiel incision.
Method(s): Data from a prospectively maintained single-institution database on all patients undergoing single-port robotic-assisted pyeloplasty between November 2018 and November 2019 were reviewed. Pyeloplasty was performed with the da Vinci SP system through a pure single site approach (except for the first patient). The initial procedures were performed through a midline incision and the technique evolved to a mini-pfannenstiel incision. Patient demographics, intraoperative data, post-operative data and surgical outcomes were collected.
Result(s): Overall, 10 patients were included and underwent the procedure without intraoperative complications or conversion to an alternate approach. The patients' ages ranged between 11 and 75 years. Mean operative time was 166 minutes (interquartile range [IQR] 146-181) and EBL was minimal. Pfannenstiel incision was performed for 6 patients and 4 patients had a vertical midline incision. The only complication recorded was a postoperative urinary tract infection treated with antibiotics. The median postoperative hospital stay was 21 hours (7-24). Postoperative pain management after discharge was managed exclusively with non-opioid medication. Overall success rate defined as the absence of pain and renal obstruction on post-operative imaging at 3 months after surgery was 100%.
Conclusion(s): Single-port robotic-assisted laparoscopic pyeloplasty is a safe and feasible procedure through a mini-pfannenstiel incision.

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2020

288.

Clinical application of enhanced recovery after surgery (ERAS) in pectus excavatum patients following Nuss procedure.
Yu P., Wang G., Zhang C., Wang Y., Yu Z., Liu H.
Embase
Journal of Thoracic Disease. 12(6) (pp 3035-3042), 2020. Date of Publication: 01 Jun 2020.
[Article]
AN: 632741479
Background: Evaluate the effect of enhanced recovery after surgery (ERAS) protocol on postoperative recovery quality of pectus excavatum patients with Nuss procedure.
Method(s): A retrospective study was performed on patients undergoing Nuss procedure from the Department of Thoracic Surgery of The Cancer Hospital of China Medical University between September 2016 and September 2019. Patients were divided into 2 groups by perioperative management: the traditional procedure group (T group) and the ERAS strategy group (E group). The outcome measures were postoperative drainage time, postoperative hospital time, and postoperative complications measured by the Clavien-Dindo method.
Result(s): Of the 168 patients from this time period, 148 met the inclusion criteria (75 in Group T and 73 in Group E). All operations involved in this study were completed successfully. There was no statistical difference between the 2 groups with respect to baseline demographics (P>0.05). In Group E, postoperative drainage time (2.53+/-0.72 vs. 3.45+/-2.07 days) and postoperative hospitalization time (4.96+/-1.48 vs. 7.71+/-7.78 days) were statistically significantly better than those in Group T (P<0.05). There was no difference in overall postoperative complications as measured by Clavien-Dindo score.
Conclusion(s): The measures of no indwelling urinary catheter (IDUC), laryngeal mask anesthesia, and indwelling tubule drainage can improve postoperative recovery quality of pectus excavatum patients following Nuss procedure.

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289.

Physicians prescribe more opioid than needed to treat pain in children after outpatient urological procedures: An observational cohort study.
Hunsberger J.B., Hsu A., Yaster M., Vozzo P.T., Gao S., White E.D., Yenokyan G., Vickers B., Monitto C.L.
Embase
Anesthesia and Analgesia. 131(3) (pp 866-875), 2020. Date of Publication: 01 Sep 2020.
[Article]
AN: 632820315
BACKGROUND: The epidemic of nonmedical use of prescription opioids (NMUPOs) has been fueled in part by the availability of leftover, legitimately prescribed opioids. In children, outpatient urological procedures are among the most common surgeries performed, but data are lacking to guide appropriate postoperative opioid prescribing. The aim of this study was to compare the amount of prescribed opioid medication to the amount taken for acute pain after minor pediatric urological surgery and to determine the disposition of excess opioid. In addition, we explored whether distinct patient characteristics and procedure type influenced opioid prescribing and consumption.
METHOD(S): Of the 139 families of pediatric patients enrolled, 115 were interviewed within 48 hours and/or 10-14 days of discharge to determine the amount of opioid prescribed and consumed, duration of treatment, and disposition of unconsumed opioid.
RESULT(S): The most common procedures performed were circumcision (n = 58) and orchiopexy (n = 40). Most patients (98%) were male, and 77% were <8 years of age. All opioid prescriptions were for oxycodone dosed every 4 hours as needed (PRN). Median number of doses prescribed was 30 (interquartile range [IQR], 23-31; n = 138) for both respondents who reported doses remaining (IQR, 29-31; n = 83) and those who did not (IQR, 22-32; n = 55). Among those reporting doses remaining, median number of doses consumed was 4.2 (IQR, 0-14). Multivariable linear regression showed no significant association between doses consumed and patient age, type of procedure, discharge pain score, or use of adjuvant analgesics. Median duration of opioid therapy was 2 days (IQR, 0-5; n = 83) with each additional day of opioid use corresponding to an average increase in consumption of 2.3 doses (95% confidence interval [CI], 1.8-2.8). An estimated 75% (95% CI, 69%-81%) of opioid dispensed was not consumed, and 86% (72/83) of patients took <=18 doses. Forty-four of 65 (68%) families reported receiving no disposal instructions for leftover opioid, and only 7 families disposed of leftover medication.
CONCLUSION(S): For minor pediatric urological surgeries in young boys, a 3-day supply (18 doses) of opioid was sufficient to adequately treat acute postoperative pain in most patients. Adjusting opioid dispensing to align with consumption and better educating patients and families on opioid disposal can be used to potentially decrease availability of leftover opioids in homes and communities.

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290.

Ultrasound-guided transversus abdominis plane block versus caudal block for postoperative analgesia in children undergoing inguinal hernia surgery: A comparative study.
Kumar A., Dogra N., Gupta A., Aggarwal S.
Embase
Journal of Anaesthesiology Clinical Pharmacology. 36(2) (pp 172-176), 2020. Date of Publication: April-June 2020.
[Article]
AN: 632514283
Background and Aims: Ultrasound-guided (USG) transversus abdominis plane (TAP) block has emerged as a safe and effective regional anesthesia technique as it provides adequate postoperative pain relief for lower abdominal surgeries. Caudal block is a gold standard technique in pediatric surgeries. Our aim was to compare the duration of postoperative analgesia between TAP block and caudal block in children undergoing inguinal hernia surgeries.
Material(s) and Method(s): In a prospective, randomized, controlled study, 112 children of age 2-8 years and ASA grade I and II, undergoing elective inguinal hernia surgery were randomly allocated into two groups: Group T (n = 56) received USG-guided TAP block with 0.5mL/kg of 0.2% ropivacaine and Group C (n = 56) received caudal block with 1mL/kg of 0.2% ropivacaine. The primary outcome variable was the duration of postoperative analgesia and the secondary outcome variables included variation in hemodynamic parameters and adverse effects, if any.
Result(s): There was no significant difference in median of CHEOPS score till 5 postoperative hours, thereafter till 24 postoperative hours, significantly lower CHEOPS score were found in Group T. Mean duration of analgesia was 523.44 +/- 61.30 min in Group T, whereas in Group C, it was 352.59 +/- 32.54 min. No significant difference was observed in hemodynamic variations and adverse effects.
Conclusion(s): TAP block and caudal block both are effective in providing postoperative analgesia in children undergoing inguinal herniotomy. USG-guided TAP block was found to be superior as it provided longer duration of analgesia and reduced rescue analgesic dose without any significant adverse effects as compared with caudal block after inguinal herniotomy.

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291.

Dorsal lumbotomy for pediatric upper pole hemi-nephrectomy: Back (door) to the future?.
Roshan A., MacNeily A.E.
Embase
Journal of Pediatric Urology. 16(4) (pp 480.e1-480.e7), 2020. Date of Publication: August 2020.
[Article]
AN: 2006172228
Introduction: Upper pole heminephrectomy (UHN) is performed for two main indications in children: ectopic ureterocele and duplication anomalies with upper pole ectopy, both in the context of a poorly functioning upper pole moiety. Current popular techniques for conducting UHN include laparoscopic (LPN) and robot-assisted laparoscopic (RAPN).
Objective(s): To evaluate outcomes following dorsal lumbotomy (DL), an open approach used historically for pyeloplasty and pyelolithotomy, and in which no clinical trials or exclusive case-series have been conducted for upper pole hemi-nephrectomy (UHN) in children. We ultimately aim to compare our outcomes following DL at our centre to that of published outcomes of minimally invasive approaches to UHN. Study design: Institutional board review was obtained (H18-03716) for a retrospective review of 50 UHN performed in 49 consecutive pediatric patients using the DL approach by a single surgeon between 2001 and 2019. Clinical variables and indicators included age, sex, weight, skin-to-skin time, total operating room time, duration of hospital stay, post-operative complications, analgesic requirements, and post-operative ultrasound results.
Result(s): Of 50 UHN performed, 23 had a presurgical diagnosis of ectopic ureter, and 27 ureterocele. Mean weight of patients was 12.61 kg, and the mean age at surgery was 24.55 months. Mean (range) for time between skin incision and closure was 88.5 (62-132) minutes, and the mean (range) total operating room time was 138.5 (70-180) minutes. There were neither intraoperative complications nor transfusions. The mean (range) post-operative opioid delivered was 0.73 (0.00-2.00) mg/kg/day. Mean (range) post-operative ibuprofen delivered was 5.41 (0.00-37.73) mg/kg/day. Median length of hospital stay was 2 days. No patient received post-operative prescriptions for narcotics at discharge. There were no wound complications. One patient had secondary atrophy of the lower pole. Secondary lower tract surgery, unrelated to surgical approach, was performed in five patients. Ten patients experienced a urinary tract infection at some point after surgery.
Conclusion(s): DL is safe, feasible, and produces operative outcomes and times comparable to that of laparoscopic and robotic techniques. These findings as well as operative costs should be considered when selecting a surgical technique for UHN. [Table presented]

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292.

Caudal epidural block versus ultrasound-guided dorsal penile nerve block for pediatric distal hypospadias surgery: A prospective, observational study.
Ozen V., Yigit D.
Embase
Journal of Pediatric Urology. 16(4) (pp 438.e1-438.e8), 2020. Date of Publication: August 2020.
[Article]
AN: 2006102586
Background: The surgery of hypospadias is very painful in the postoperative period and requires long-term analgesia. A dorsal penile nerve block (DPNB) and caudal epidural block (CEB) are commonly used regional anesthesia techniques for postoperative pain control.
Objective(s): The primary aim of the prospective, observational study was to use the duration until the first postoperative analgesic requirement after two different block techniques to compare the analgesic effect. The secondary aims were to compare the two methods for postoperative Children's Hospital Eastern Ontario Pain Scale (CHEOPS) scores, complications and parental satisfaction level. Study design: This study was conducted with male patients aged 1-5 years in the ASA I-II group, who were scheduled for hypospadias surgery. A CEB or ultrasound (US)-guided DPNB with the in-plane technique was administered under general anesthesia before the operation. Postoperative analgesic need, postoperative pain, complications and parental satisfaction were noted. STROBE checklist was followed for reporting.
Result(s): The study was conducted with 26 patients in total, divided into 13 patients receiving CEB and 13 patients receiving DPNB. The mean CHEOPS score ($p = 0.003$) and 12th hour CHEOPS score ($p = 0.003$) were statistically significantly higher in the CEB group than the DPNB group. The need for additional postoperative analgesia was higher in the CEB group than the DPNB group ($p < 0.001$). No complications were seen in two groups.
Discussion(s): Dorsal penile nerve block with the US-guided in-plane technique provided effective and long-lasting postoperative analgesia for hypospadias surgery.
Conclusion(s): The postoperative analgesia was better with DPNB than with CEB in hypospadias surgery, particularly in the first 12 h. Parental satisfaction was higher with DPNB thanks to the minimum postoperative analgesia requirement and lack of complications. Clinicaltrials.gov identifier: NCT04215874.

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293.

Quality improvement assessment of a bianchi-technique pediatric orchiopexy perioperative pain management pathway.
Young C.D., Walker A.M., Weber B.A., Spencer A.O.
Embase
Journal of Pediatric Urology. 16(4) (pp 461.e1-461.e9), 2020. Date of Publication: August 2020.
[Article]
AN: 2007114208
Background: Surgical correction of undescended testes is a common surgical procedure which can be performed via a two-incision technique or a single high scrotal incision (Bianchi technique). The Bianchi technique requires less surgical time and may be associated with less pain in the initial postoperative period, however it has been adopted slowly due to a lack of familiarity and perceived technical challenges of the technique. Traditionally postoperative orchiopexy pain is managed with a caudal or ilioinguinal/iliohypogastric nerve block. As urologists at our site adopted the Bianchi technique, the anesthesiologists stopped performing caudals or ilioinguinal/iliohypogastric nerve blocks as local infiltration appeared sufficient. Therefore, this quality improvement (QI) project endeavoured to assess Alberta Children's Hospital's care pathway in its effectiveness to control pain in the first 24 h following pediatric orchiopexy using the Bianchi technique.
Method(s): We completed a prospective QI project examining a care pathway for patients undergoing orchiopexy using the Bianchi technique. Eligible patients were healthy and aged 6 months to 12 years. A multimodal analgesic approach including local anesthetic surgical infiltration was used. Pain scores (FLACC) were recorded for up to 2 h postoperatively and a PPPM was completed at 24 h postoperatively.
Result(s): Sixty-four patients were included in the final analysis. The median discharge FLACC score was 0 (range 0-2) (Table 2). Median intraoperative morphine administered was 0.09 mg/kg with no significant correlations between the amount of morphine administered and postoperative pain measures. Median PPPM scores were 4 and 3.5 for unilateral and bilateral procedures, respectively.
Conclusion(s): We have demonstrated that orchiopexies repaired using the Bianchi technique following the care pathway established at Alberta Children's Hospital are associated with minimal pain scores. Our QI project suggests that combining a Bianchi technique with a simple multimodal analgesic approach including local infiltration, negates the need for regional anesthesia techniques, yet still provides adequate analgesia. [Table presented]

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294.

The role of preoperative instructions in parents' understanding of preoperative fasting for outpatient pediatric urology procedures.
Brockel M.A., Kenny M.C.C., Sevick C.J., Vemulakonda V.M.
Embase
Pediatric Surgery International. 36(9) (pp 1111-1116), 2020. Date of Publication: 01 Sep 2020.
[Article]
AN: 2005209323
Purpose: To assess the impact of modifications in preoperative instructions on parental understanding of preoperative fasting guidelines.
Method(s): A prospective postoperative parental survey was conducted to assess parental understanding of preoperative fasting requirements in patients undergoing surgery before and after institution of instructions that included visual aids. Data regarding demographics, procedure type, and time to surgery from preoperative visit were also captured. Survey data were compared between pre- and post-intervention groups using Chi-squared tests for categorical variables and Wilcoxon rank sum test for continuous variables.
Result(s): 173 parents in the pre-intervention group and 162 parents in the post-intervention group were included in the analysis. Parent identification of aspiration risk as the reason for fasting almost doubled after intervention (72.2% vs. 38.2%). There was some evidence of demographic differences between groups; however, in an adjusted model, there was strong evidence ($p < 0.001$) that parents in the post-intervention group were more likely to identify aspiration as the reason for preoperative fasting (OR 4.73; 95% CI 2.93-7.63).
Conclusion(s): Addition of visual aids in preoperative instructions was associated with improvement in parents' understanding of the rationale behind preoperative fasting instructions. Further studies are needed to determine whether improved understanding is associated with improved adherence.

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295.

Laparoscopic or open paediatric inguinal hernia repair - a systematic review.
Mahmood B., Christoffersen M., Miserez M., Bisgaard T.
Embase

Danish Medical Journal. 67(7) (pp 1-11), 2020. Article Number: A12190725. Date of Publication: 01 Jul 2020.
[Review]
AN: 2004649643
Introduction: Inguinal hernia repair is the most common surgical procedure in paediatric patients. Despite limited evidence, an increasing number of surgeons suggest laparoscopic repair as an alternative to the gold standard of open repair. This review critically analysed post-operative clinical outcome on open versus laparoscopic inguinal hernia repair in paediatric patients. Before initiating the study, recurrence was defined as the primary outcome, and secondary outcomes were early post-operative pain, operation time and surgical site infections.
Method(s): The PRISMA guidelines were followed. Using strict inclusion and exclusion criteria, the following databases were searched: MEDLINE, Cochrane Library, Web of Science and Embase (May 2019). Retrospective and uncontrolled studies were excluded.
Result(s): Five studies were identified, four randomised controlled trials (n = 272) and one controlled prospective study (n = 85) which included a total of 357 patients. Generally, the studies included few patients, were highly heterogenic and were overall of moderate quality. With a follow-up time ranging from three months to 14 years, there was no difference in recurrence rate after unilateral open (0-2%) versus unilateral laparoscopic (0-4%) or bilateral open versus bilateral laparoscopic repair (n = 281; p > 0.05 in all studies). There were no other significant differences in any of the outcomes, including post-operative pain (p > 0.05).
Conclusion(s): There is no solid evidence that clinical outcome is improved after laparoscopic paediatric inguinal hernia repair compared with the gold standard.

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296.

Music interventions in pediatric surgery (The music under surgery in children study): A randomized clinical trial.
Kuhlmann A.Y.R., Van Rosmalen J., Staals L.M., Keyzer-Dekker C.M.G., Dogger J., De Leeuw T.G., Van Der Toorn F., Jeekel J., Wijnen R.M.H., Van Dijk M.
Embase
Anesthesia and Analgesia. 130(4) (pp 991-1001), 2020. Date of Publication: April 2020.
[Article]
AN: 631587319
BACKGROUND: Perioperative music interventions have been shown to reduce anxiety and pain in adults. This inexpensive, easily applicable intervention could be of benefit to children as well. Our objective was to determine the effects of music interventions on distress, anxiety, and postoperative pain in infants undergoing surgery.
METHOD(S): The Music Under Surgery In Children study was designed as a parallel, single-blind, randomized controlled trial with an a priori formulated hypothesis. Data were collected

between August 2015 and October 2016 in a single tertiary care children's hospital. There was a 24-hour follow-up with blind primary outcome assessment. A random sample of 432 eligible 0-3 years of age infants admitted for orchidopexy, hypospadias, or inguinal hernia repair receiving general anesthesia and caudal block were asked for participation. Subjects were assigned to a preoperative music intervention, pre- and intraoperative music intervention, or no music intervention (control) via random allocation using a computer-generated list with the use of opaque envelopes. The main outcome measure was the postoperative level of distress assessed with the COMFORT-Behavior scale, which is an observational scale; furthermore, preoperative level of distress, preoperative anxiety, and physiological measurements such as heart rate (HR) and blood pressure were measured. The trial was registered at the Dutch Trial Register, number NTR5402 (www.trialregister.nl).
RESULT(S): One hundred ninety-five infants with median age 6.9 months (interquartile range, 3.3-11.1) were randomized, 178 of whom were included in the primary analysis. A nonsignificant difference in COMFORT-Behavior scale scores between the pre- and intraoperative music intervention group and control group at 4 hours after surgery was found (mean difference, -1.22; 95% CI, 2.60-0.17; P = .085). Additional analysis showed weak nonsignificant evidence for an interaction effect between music exposure and COMFORT-Behavior score at baseline (P = .027 with a Bonferroni-adjusted significance level of .025). General linear modeling showed a statistically significantly reduced HR after the preoperative music intervention in the holding area in the combined preoperative music intervention and intraoperative music intervention group compared to the control group (P = .003). The differences in HR among the 3 study arms at all time points were not statistically significant (P = .069).
CONCLUSION(S): Music interventions do not seem to benefit all young infants undergoing surgery. The potential benefits of music interventions in the preoperative period and in more distressed children warrant further exploration.

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297.

General anesthesia maintained with sevoflurane versus propofol in pediatric surgery shorter than 1 hour: A randomized single-blind study.
Wu G., Xu X., Fu G., Zhang P.
Embase
Medical Science Monitor. 26 (no pagination), 2020. Article Number: e923681. Date of Publication: 2020.
[Article]
AN: 2006823127
Background: Sevoflurane was compared with propofol for general anesthesia maintenance in pediatric operations lasting less than 1 hour in terms of anesthetic effect and postoperative recovery. Material/Methods: Children scheduled for inguinal hernia repair or hydrocele testis repair were randomly assigned to receive general anesthesia maintained with either sevoflurane (n=43) or propofol (n=43). The ilioinguinal nerve was blocked with 1% lidocaine (7 mg/kg) after intravenous administration of ketamine (2 mg/kg). At the end of the surgery in patients receiving sevoflurane, sevoflurane was stopped and a bolus of propofol of 1 mg/kg was administered. Result(s): Sevoflurane was associated with significantly less use of ketamine (35.1+/-10.6 mg) than was propofol (59.0+/-28.0 mg; P<0.001). In addition, sevoflurane was associated with a significantly shorter time in the post-anesthesia care unit (52.1+/-9.0 min) than was propofol (68.8+/-15.3 min; P<0.001). Propofol was associated with a significantly higher incidence of intraoperative body movement (33.3%) than was sevoflurane (13.5%; P=0.045). However, the 2 groups showed no important differences in other adverse events such as hypoxia, emergence agitation, and additional use of propofol.
Conclusion(s): In pediatric surgery lasting less than 1 hour, anesthesia maintained with sevoflurane was associated with significantly less use of ketamine, shorter postoperative recovery time, and less intraoperative body movement than was propofol.

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298.

Cortical transit time: understanding utility and pitfalls in children with pelviureteric junction obstruction.
Jain V., Kumar R., Arora S., Mani K., Agarwala S., Yadav D.K., Goel P., Dhua A.
Embase
Journal of Pediatric Urology. 16(3) (pp 330.e1-330.e6), 2020. Date of Publication: June 2020.
[Article]
AN: 2005484985
Introduction: Delayed cortical transit time (CTT) has been recently studied and proposed as a parameter that can predict the need for surgery in children with pelviureteric junction obstruction (PUJO).

Aim(s): The aim of this study was to study the change in CTT, after surgery, in children with PUJO and to correlate CTT with intrapelvic pressure of the kidney.
Material(s) and Method(s): A prospective study was performed, and all children who underwent pyeloplasty from January 2016 to December 2017 were included. Pre-operative and postoperative renal ultrasonography and Technetium-99m mercaptoacetyltriglycerine Tc-MAG3 renal scintigraphy were performed. Cortical transit time was measured by a visual method by two different observers. The renal intrapelvic pressure of the kidney was also measured during surgery after giving a diuretic to replicate the diuresis induced during the renal scan. The correlation was studied between the pre-operative CTT and intrapelvic pressures and between the pre-operative CTT and the renal function of the affected kidney.
Result(s): Thirty-one children were included in the study. The median age of children who underwent surgery was 50 months (2-168). In 71% of patients, the CTT was prolonged before surgery, whereas only 22.5% had delayed CTT after surgery. The mean CTT before surgery was 226.1 +/- 74.8 s and decreased to 165.4 +/- 55.9 s after surgery (p= <0.001). The mean intrapelvic pressure was 21 +/- 7.5 cm H2O. There was no correlation noted between the intrapelvic pressure and the CTT. A significant negative correlation was noted between the CTT and the different renal function of the kidney.
Discussion(s): This is the first prospective study that studies the changes in CTT after surgery. Only retrospective studies had been conducted to date which concluded that CTT was delayed in most of the patients who had been operated. It has been proposed that the prolonged CTT is due to raised pressure in the kidney secondary to obstruction. This study did not find any correlation between the pressure and CTT. The significant negative correlation between CTT and renal function also emphasizes the need to take the renal function into consideration before interpreting and using the absolute value of CTT for guiding treatment.
Conclusion(s): Cortical transit time assessment by the visual method is a useful parameter in the management of children with PUJO. There is a significant improvement in CTT after surgery.[Formula presented]

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299.

Successful use of an enhanced recovery after surgery (ERAS) pathway to improve outcomes following the Nuss procedure for pectus excavatum.
Wharton K., Chun Y., Hunsberger J., Jelin E., Garcia A., Stewart D.
Embase
Journal of Pediatric Surgery. 55(6) (pp 1065-1071), 2020. Date of Publication: June 2020.
[Article]
AN: 2005259154

Purpose: Pectus excavatum is a common chest wall deformity amenable to surgical correction, most commonly by a technique known as the Nuss Procedure. The surgery is associated with significant postoperative pain and lengthy hospital stays. We hypothesized that a standardized enhanced recovery after surgery (ERAS) pathway would result in significantly reduced length of stay (LOS) and reduced levels of postoperative pain without an increase in readmissions or emergency department (ED) visits.
Method(s): We instituted a pectus excavatum ERAS program at a high-volume academic center. Our ERAS protocol standardized perioperative exercise and pharmacologic regimens, pre- and post-operative education, and early return to activity. We conducted a retrospective review of all patients undergoing the Nuss procedure from 2015 to 2018. ERAS was implemented at the mid-point of the study period, and pre- and post-protocol patients were compared in our analysis. The primary outcome measure was LOS. The secondary outcomes included pain scores, incidence of urinary retention, and readmissions or ED visits.
Result(s): One hundred nine patients were included in this study (51 patients pre-ERAS and 58 post-ERAS). The average length of hospitalization prior to implementation of ERAS was 3.49 and after the implementation 2.90 ($p = 0.0007$). The implementation of ERAS showed a trend of decreasing readmissions and emergency department visits, but this did not reach statistical significance. There was a statistically significant decrease in both requirement for urinary catheter placement and pain scores on postoperative day 0.
Conclusion(s): Implementation of ERAS for the Nuss procedure leads to a significant reduction in LOS, early pain scores, and urinary catheter usage, without an increase in post-operative ED visits and hospital readmissions. An ERAS protocol should be utilized in this patient population.
Type of Study: Retrospective comparative study. Type of evidence: Level III.

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300.

Considerations regarding pain management and anesthesiological aspects in pediatric patients undergoing minimally invasive surgery: robotic vs laparoscopic-thoracoscopic approach.
Molinaro F., Krasniqi P., Scolletta S., Giuntini L., Navarra C., Puzzutiello R., Fusi G., Angotti R., Bindi E., Zanaboni C., Messina M., Mattioli G.
Embase
Journal of Robotic Surgery. 14(3) (pp 423-430), 2020. Date of Publication: 01 Jun 2020.
[Article]

AN: 2002325073
In the last decade, the applicability of robotic surgery has been demonstrated in many interventions, expanding the indications of minimally invasive surgery also to pediatrics. The aim of the study is to evaluate postoperative pain to demonstrate better control following robotic procedures compared to thoraco-laparoscopic surgery. An observational, retrospective, multicentre study was performed involving 204 children undergoing robot-assisted surgery and thoraco/laparoscopic surgery at the Istituto Giannina Gaslini in Genoa and the Siena University Hospital (2013-2017): 83 children underwent robotic-assisted surgery and 121 thoracic-laparoscopic surgery. Personal data and type of intervention were assessed, dividing the patients into four categories: thoracic, gastrointestinal, hepatobiliary and urological surgeries. We analyzed the anesthetic risk according to ASA classification by type of intervention, the type of anesthesia used, the anesthetic drugs used during surgery and in the postoperative period. Both the problems that occurred during the procedures and the number of interventions converted into open during robotic surgery and laparoscopic thoracic surgery were analyzed. Pain was measured on the 1st, 2nd and 3rd day (FLACC or NRS scales). By comparing the two groups (robotics-non-robotics), the analysis shows that postoperative pain does not change with the chosen approach, but always maintains very low values, typical of minimally invasive surgery. The pain score is significantly higher in patients undergoing thoracic surgery, either robotic or thoracoscopic, compared to those undergoing gastrointestinal surgery (P corrected according to Bonferroni: 0.0006) and those undergoing urological intervention (P corrected according to Bonferroni: 0.04). In conclusion, no significant change in the intensity of postoperative pain between the two groups was found, while it is seen that the pain in patients undergoing thoracic interventions (robotic/thoracoscopic) is more intense than that reported for other types of interventions.

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301.

Effects of adding dexmedetomidine to local infiltration of bupivacaine on postoperative pain in pediatric herniorrhaphy: A randomized clinical trial.
Azemati S., Pourali A., Aghazadeh S.
Embase
Korean Journal of Anesthesiology. 73(3) (pp 212-218), 2020. Date of Publication: June 2020.
[Article]
AN: 2004483066

Background: Postoperative pain is a major problem, especially in children, as their toler-ance level is lower and several drugs are contraindicated in childhood. This study aimed to compare the effect of dexmedetomidine added to local infiltration of bupivacaine for postoperative pain relief in children undergoing inguinal herniorrhaphy.
Method(s): This double-blind, randomized clinical trial included 60 children aged 6-72 months undergoing unilateral herniorrhaphy at selected hospitals in Shiraz, Iran, ran-domly allocated into two groups, 30 in each group. One group received 1 microg/kg dexme-detomidine plus local infiltration of 0.2 ml/kg bupivacaine 0.5% at the incision site before surgery (BD), and the other group received bupivacaine and normal saline (BO). Analgesic requirements, emergence time, and nausea/vomiting, postoperative pain and sedation scores were assessed for 4 h after the operation. Heart rate (HR), systolic blood pressure (SBP), and oxygen saturation (SaO2) were recorded at baseline, and at 10 and 20 min after injection.
Result(s): Eighty percent were boy in each group; mean age was 22.75 +/- 18.63 months. SaO2 and SBP were not different between the groups, while HR was significantly lower in the Group BD at 10 and 20 min after injection ($P < 0.05$). Group BD had a lower pain score at 1 and 2 h after the operation, a higher sedation score at the first three time inter-vals, and longer emergence time than Group BO (all $P < 0.001$). Group BD had a lower pain score at 1 and 2 h after the operation ($P < 0.001$, $P < 0.047$ respectively).
Conclusion(s): Addition of dexmedetomidine to local infiltration of bupivacaine in children undergoing herniorrhaphy significantly reduced postoperative pain and increased sedation.

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302.

Ultrasound-guided nerve block for pediatric inguinal herniorrhaphy.
El Hossieny K.M.
Embase
Egyptian Journal of Anaesthesia. 36(1) (pp 56-60), 2020. Date of Publication: 01 Jan 2020.
[Article]
AN: 2005286087
Background and aim: Regional anesthesia is one of the best options anesthetic technique, it was very difficult to be used in pediatrics anesthesia, now a days it becomes more easier and safer with the era of high-quality ultrasound. This study aimed to assess the effectiveness of ultrasound-guided nerve block (ilioinguinal/iliohypogastric; II/IH) in pediatric unilateral inguinal herniorraphy, time for first analgesic dose, parents, surgeon satisfaction and complication.

Patients and Methods: The study was done in Zagazig university hospital after approval of the ethical committee. Induction of anesthesia using sevoflorane MAC (Minimal Alveolar Concentration) 4%-6% then Laryngeal Mask Airway was inserted (LMA). Ultrasound-guided (ilioinguinal/iliohypogastric) nerve block was performed on 20 male pediatric patients their age ranged from 4 to 10 years old with ASA status I and II, with unilateral inguinal hernia.hemodynamics as heart rate (HR) blood pressure systolic/diastolic (SBP/DBP) was reported also Children Infants Postoperative Pain (CHIPPS) score was recorded every 2 h until 12 h and time for first analgesic dose also reported.
Result(s): Our result showed no significant changes in heart rate (HR) and blood pressure (BP) at skin incision; HR (95 +/- 8), BP (97.6+/-/50 +/- 5) and intraoperative HR (93.5 +/- 6), BP (99.6 +/- 9/51 +/- 4) compared with the basal readings; HR (113 +/- 10), BP (104 +/- 12/53 +/- 6). Pain score was evaluated using (ChIPPS), it started to increase after 4 to 5 h and reported by first analgesic dose (5.2 +/- 1.5) that managed by paracetamol (15 mg/kg/day). Surgeon and parents were satisfied. Early ambulation and less hospital stay. Less complications (no motor block or urine retention).
Conclusion(s): Ultrasound-guided (ilioinguinal and iliohypogastric) nerve block was found to be an ideal intraoperative anesthetic and postoperative analgesic for unilateral inguinal herniorrhaphy in children with no complications.

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2020

303.

Minimally invasive, sutureless, adolescent male circumcision with topical anesthetic: A field trial of Unicirc, a single-use surgical instrument.
Millard P.S., Goldstuck N.
Embase
Translational Andrology and Urology. 9(2) (pp 516-522), 2020. Date of Publication: 01 Apr 2020.
[Article]
AN: 631986746
Background: Circumcision has been shown to reduce the rate of HIV transmission in Africa. It is most cost effective if performed in younger men. Surgical assist devices can increase the efficiency and potentially reduce the cost of performing circumcisions.
Method(s): We used the Unicirc disposable instrument to perform circumcisions in an outpatient primary care clinic. The trial was non-blinded. Circumcisions were performed under topical anaesthetic and the wound was sealed with cyanoacrylate tissue adhesive. The primary outcome was intraoperative duration; secondary outcomes were intraoperative and postoperative pain; adverse events (AEs); time to healing and patient satisfaction; and, cosmetic result.
Result(s): A total of 82 adolescent boys (aged 10-15 years) were circumcised. The median intraoperative time was 10 minutes and the median blood loss was 1 mL. All wounds were healed by 4 weeks and cosmetic results were excellent. There were no AEs.
Conclusion(s): Adolescent circumcision with Unicirc under topical anesthetic and wound sealing with cyanoacrylate tissue adhesive is safe, rapid, and heals by primary intention with excellent cosmetic results. It is cost effective and can be used for large scale programs.

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304.

Comprehensive nursing intervention after pediatric hernia surgery reduce postoperative pain and improves the postoperative clinical efficacy.
Cai D., Feng L., Dong Y., Yuan S.
Embase
International Journal of Clinical and Experimental Medicine. 13(4) (pp 2474-2481), 2020. Date of Publication: 2020.
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AN: 2004238406
Objective: To explore the effect of comprehensive nursing intervention in pediatric hernia surgery.
Method(s): In total, 220 children receiving hernia surgery were prospectively analyzed. They were divided into the routine nursing group (N=112) and the comprehensive nursing group (N=108) according to their nursing methods. The clinical efficacy, postoperative pain and nursing satisfaction were compared. The time to ambulation, the hospital stay, and the occurrence of complications were recorded.
Result(s): The effective rate of the comprehensive nursing group was significantly higher than that of the routine nursing group (all P<0.05). The postoperative Visual Analogue Scale (VAS) score in the comprehensive nursing group was significantly lower than that of the routine nursing group (P<0.05). The postoperative Face, Legs, Activity, Cry, Consolability (FLACC) score in comprehensive nursing group was significantly lower than that of the routine nursing group (P<0.05); the time to ambulation and the hospital stay in the comprehensive nursing group were significantly lower than those in the routine nursing group (P<0.05). The incidence of complications including urinary retention, dragging pain and wound pain in the comprehensive nursing group was significantly lower than that in the routine nursing group (P<0.05); the nursing satisfaction of the comprehensive nursing group was significantly higher than that in the routine nursing group (P<0.05).
Conclusion(s): The comprehensive nursing intervention after pediatric hernia surgery will significantly reduce postoperative pain, shorten the hospital stay, improve the postoperative clinical efficacy and decrease the incidence of complications.

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305.

Association of postoperative fluid overload with adverse outcomes after congenital heart surgery: a systematic review and dose-response meta-analysis.
Bellos I., Iliopoulos D.C., Perrea D.N.
Embase
Pediatric Nephrology. 35(6) (pp 1109-1119), 2020. Date of Publication: 01 Jun 2020.
[Article]
AN: 2004239755
Background: Pediatric cardiac surgery is commonly associated with acute kidney injury (AKI) and significant fluid retention, which complicate postoperative management and lead to increased rates of morbidity. This meta-analysis aimed to accumulate current literature evidence and evaluate the correlation of fluid overload degree with adverse outcome in patients undergoing congenital heart surgery.
Method(s): Medline, Scopus, CENTRAL, Clinicaltrials.gov, and Google Scholar were systematically searched from inception. All studies reporting the effects of fluid overload on postoperative clinical outcomes were selected. A dose-response meta-analytic method using restricted cubic splines was implemented in R-3.6.1.
Result(s): Twelve studies were included, with a total of 3111 pediatric patients. Qualitative synthesis indicated that fluid overload was linked to significantly higher risk of mortality, AKI, prolonged hospital, and intensive care unit (ICU) stay, as well as with increased duration of mechanical ventilation, inotrope need, and infection rate. Meta-analysis demonstrated a linear correlation between fluid overload and the risk of mortality (chi2 = 6.22, p value = 0.01) and AKI (chi2 = 35.84, p value < 0.001), while a positive curvilinear relationship was estimated for the outcomes of hospital (chi2 = 18.84, p value = 0.0001) and ICU stay (chi2 = 63.69, p value = 0.0001).
Conclusion(s): The present meta-analysis supports that postoperative fluid overload is significantly linked to elevated risk of prolonged hospital stay, AKI development, and mortality in pediatric patients undergoing cardiac surgery. These findings warrant replication by future prospective studies, which should define the optimal cutoff values and assess the effectiveness of therapeutic strategies to limit fluid overload in the postoperative setting.

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306.

Pediatric Endoscopic Hidradenitis Treatment: A New Minimally Invasive Treatment for Pediatric Patients with Hidradenitis Suppurativa.
Esposito C., Del Conte F., Cerulo M., Coppola V., Esposito G., Ricciardi E., Castagnetti M., Fabbrocini G., Escolino M.
Embase
Journal of Laparoendoscopic and Advanced Surgical Techniques. 30(4) (pp 464-470), 2020. Date of Publication: April 2020.
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AN: 631587952
Background: Hidradenitis suppurativa (HS) is infrequent in the pediatric population. When indicated, surgery is often invasive, painful, and with significant recurrence rate. We aimed to report our preliminary experience using a new endoscopic technique to treat this pathology.
Material(s) and Method(s): We reported the data of 11 patients (9 girls and 2 boys) with average age of 15.7 years (range 14-17) with HS, who were operated using endoscopic procedure for a 15-month period. Six patients presented axillary, inguinal, and inframammary localizations, 3 patients presented axillary and inguinal localizations, and 2 patients presented only inguinal localization. Pediatric endoscopic hidradenitis treatment (PEHT) followed the same principles of pediatric endoscopic pilonidal sinus treatment (PEPSiT). The fistuloscope was introduced into the different holes, and after using an endobrush, all tracts were cauterized using monopolar electrode or laser energy, and finally the granulation tissues were removed using graspers. At the end of the procedure, all the holes were filled with oxygen-enriched oil-based gel and covered with fat gauze.
Result(s): The average operative time was 47 minutes (range 30-80). All procedures were performed in a day surgery setting or with an overnight hospitalization. All patients reported no pain postoperatively and performed a local dressing with silver sulfadiazine spray and oxygen-enriched oil-based gel two times per day for 1 month postoperatively. At the longest follow-up of 1 year, the lesions were completely healed in all cases. Two patients (18%) developed further lesions in different untreated localizations that were successfully treated using PEHT.
Conclusion(s): PEHT is a minimally invasive, effective, and safe treatment option for pediatric patients with HS. All patients reported a painless postoperative period and excellent results. Postoperative local dressings using oxygen-enriched oil-based gel and silver sulfadiazine spray are fundamental to achieve the complete healing. However, a further evidence with larger series and longer follow-up is required to confirm these preliminary results.

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307.

A Prospective, randomized comparative study between ultrasound-guided posterior quadratus lumborum block and ultrasound-guided ilioinguinal/iliohypogastric nerve block for pediatric inguinal herniotomy.
Samerchua A., Leurcharusmee P., Panichpichate K., Bunchungmongkol N., Wanvoharn M., Tepmalai K., Khorana J., Chantakhow S.
Embase
Paediatric Anaesthesia. 30(4) (pp 498-505), 2020. Date of Publication: 01 Apr 2020.
[Article]
AN: 2004330975
Background: Ilioinguinal/iliohypogastric nerve block is commonly performed to control postherniotomy pain. The posterior quadratus lumborum block has been recently described as an effective analgesic technique for pediatric low abdominal surgery. No data were found regarding the use of posterior quadratus lumborum block in comparison with the traditional ilioinguinal/iliohypogastric nerve block in pediatric inguinal surgery.
Aim(s): This randomized assessor-blinded study compared postoperative analgesic effects between ultrasound-guided posterior quadratus lumborum block and ilioinguinal/iliohypogastric nerve block in pediatric inguinal herniotomy.
Method(s): One- to seven-year-old children scheduled for unilateral open herniotomy were randomly assigned to receive either ultrasound-guided posterior quadratus lumborum block with 0.25% bupivacaine 0.5 mL/kg or ultrasound-guided ilioinguinal/iliohypogastric nerve block with 0.25% bupivacaine 0.2 mL/kg after induction of general anesthesia. The primary outcome was the proportion of patients who received postoperative oral acetaminophen. The required fentanyl in the recovery room, 24-hour acetaminophen consumption, success rate of regional blocks, block performance data, block-related complications, postoperative pain intensity, and parental satisfaction were assessed.
Result(s): This study included 40 patients after excluding four cases who were ineligible. The number of patients who required postoperative oral acetaminophen was significantly lower in the posterior quadratus lumborum block group (15.8% vs 52.6%; OR: 5.9; 95% CI: 1.3, 27.3; P =.022). The pain scores at 30 minutes, 1, 2, 6, 12, and 24 hours were similar between groups. There was no evidence of between-group differences in block performance time, the number of needle passes, block-related complications, and parental satisfaction.
Conclusion(s): The posterior quadratus lumborum block with 0.25% bupivacaine 0.5 mL/kg provided better pain control than the ilioinguinal/iliohypogastric nerve block with 0.25% bupivacaine 0.2 mL/kg after open herniotomy in children. The ultrasound guidance technique for the posterior quadratus lumborum block is safe and as simple as the ultrasound-guided ilioinguinal/iliohypogastric nerve block for pediatric patients.

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308.

Opioid utilization is minimal after outpatient pediatric urologic surgery.
Bilgutay A.N., Hua H., Edmond M., Blum E.S., Smith E.A., Elmore J.M., Scherz H.C., Garcia-Roig M., Kirsch A.J., Cerwinka W.H.
Embase
Journal of Pediatric Urology. 16(1) (pp 108.e1-108.e7), 2020. Date of Publication: February 2020.
[Article]
AN: 2003959547
Introduction: There are no guidelines for opioid use after pediatric urologic surgery, and it is unknown to what extent prescriptions written for these patients may be contributing to the opioid epidemic in the United States. We sought to characterize opioid utilization in a prospective fashion following outpatient pediatric urologic surgery at our institution.
Material(s) and Method(s): After obtainingapproval from the Institutional Review Board, we prospectively recruited pediatric patients undergoing outpatient urologic surgery. All patients and families were counseled regarding appropriate use of over-the-counter pain medications as first-line agents, with opioids for breakthrough pain only. All patients received an opioid prescription (ORx), which we attempted to standardize to 10 doses. Parents were provided with a log for keeping track of pain medication administration. Postoperative surveys were sent at various time points after surgery to assess utilization of pain medications at home. We quantified unused opioids prescribed and evaluated factors potentially associated with opioid use.
Result(s): Two hundred and two patients were recruited. All patients were male, with a median age of 2.7 years (interquartile range (IQR) 5.5, range 0.5-17.9 years). One hundred and fifty-four children underwent penile surgery, 22 underwent scrotal surgery, and 27 underwent inguinal surgery. Nearly half of our study patients were black, 33.2% were white, 12.9% were Latino, and 4.0% were Asian. The median number of doses prescribed was 10 (IQR 0, range 4.0-20.8). Postoperative surveys were completed by 80.7% of study patients. The median number of opioid doses used was 0 (IQR 2), whereas the mean was 1.28 (standard deviation (SD) 1.98). None of the factors evaluated (including patient age, surgery type, perioperative pain management techniques, length of surgery, and insurance type) were associated with the amount of opioid used at home after surgery, as utilization was equally low across all groups. [Table presented]
Discussion and conclusions: Ensuring adequate postoperative pain control for children is critical, yet it is also important to minimize excess ORx. We found that the majority of pediatric patients used 0-2 doses of prescription pain medication after discharge following outpatient urologic surgery, representing a small percentage of the total prescribed amount. Low utilization was seen irrespective of patient age, procedure, and perioperative factors. These data can be used to guide perioperative patient and family counseling and to guide future efforts to standardize ORx following outpatient pediatric urologic surgery.

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2020

309.

A comparison of the postoperative analgesic effectiveness of low dose caudal epidural block and US-guided dorsal penile nerve block with in-plane technique in circumcision.
Ozen V., Yigit D.
Embase
Journal of Pediatric Urology. 16(1) (pp 99-106), 2020. Date of Publication: February 2020.
[Article]
AN: 2003863593
Background: Circumcision can be performed under sedo-analgesia, general anesthesia, or regional anesthesia. It may cause serious postoperative pain and patients often require additional analgesia. Dorsal penile nerve block (DPNB) and caudal epidural block are commonly used regional anesthesia methods to provide effective postoperative pain control in circumcision. Objective(s): In this prospective observational study, we aimed to investigate the postoperative analgesic efficiency of DPNB with the ultrasound (US)-guided in-plane technique and single-dose caudal epidural block in circumcision. Study design: Male patients aged 4-12 years in the ASA I-II group, who were scheduled for circumcision, were included in the study. A caudal epidural block or US-guided DPNB with the in-plane technique was administered under general anesthesia before the operation. Postoperative pain was evaluated using the Children's Hospital Eastern Ontario Pain Scale (CHEOPS) and Faces Pain Scale-Revised (FPS-R). Postoperative analgesic need and parental satisfaction were also noted.
Result(s): There were 140 patients in our study. The number of patients receiving a caudal block (n = 70) and DPNB block (n = 70) was equal. Side effects were only seen in five patients in the caudal group. No side effects were seen in patients in the DPNB group. Analgesics were required in 3.6% of the patients in the caudal group and none of the patients in the DPNB group postoperatively. CHEOPS mean scores in the caudal block group were found to be statistically significantly higher than in the penile block group. FPS-R 24th. hour mean score was statistically significantly higher in the caudal block group ($P < 0.001$). Postoperative parental satisfaction in the penile block group was found to be statistically significantly better than in the caudal block group ($P = 0.028$).

Discussion(s): This study demonstrated that DPNB conducted with the US-guided in-plane technique was more effective than caudal block in providing postoperative analgesia. The parental satisfaction was also higher, and no side effect was seen in the DPNB group.
Conclusion(s): DPNB conducted with the US-guided in-plane technique is a simple and safe regional anesthesia method used to provide effective postoperative analgesia for male circumcision. Complications related to DPNB can be prevented with the help of the real-time imaging provided by ultrasound. [Table presented]

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Status
Embase
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Publisher
Elsevier Ltd
Year of Publication
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310.

Infiltration of bupivacaine into the preperitoneal space and trocar incisions of patients undergoing laparoscopic totally extraperitoneal repair of unilateral inguinal hernia: A prospective randomized controlled observational study.
Colak S., Akkus O., Gurbulak B., Cakar E., Bektas H.
Embase
Wideochirurgia I Inne Techniki Maloinwazyjne. 15(1) (pp 11-17), 2020. Date of Publication: 2020.
[Article]
AN: 2005368149
Introduction: Although laparoscopic repair of inguinal hernia is associated with reduced postoperative pain, it is not entirely painless. In addition to reducing the need for analgesic medication, postoperative complications, and hospitalization, postoperative pain control enables early return to normal activity.
Aim(s): To evaluate the efficacy of bupivacaine instilled into the pre-peritoneal space and trocar incisions of patients undergoing laparoscopic totally extraperitoneal (TEP) repair of inguinal hernia.
Material(s) and Method(s): Bupivacaine was instilled into the pre-peritoneal space and trocar incisions of the patients in group I (n = 23), whereas it was infiltrated only into the trocar incisions of the patients in group II (n = 21). No local anesthetic was administered to the patients in group III (n = 21). Postoperative pain was assessed using the Visual Analog Scale (VAS) at 4 and 24 h, and the dosage of analgesic medication was noted.
Result(s): No significant difference regarding age, gender, body mass index, ASA class, history of abdominal surgery, or smoking was noted between the three groups ($p > 0.05$). VAS score at 4 h was significantly higher in group III than in groups I and II ($p < 0.05$). The dosage of analgesic medication was significantly higher in group III than in groups I and II ($p < 0.05$), with no significant difference between groups I and II ($p > 0.05$).

Conclusion(s): Infiltration of long-acting local anesthetic into the pre-peritoneal space and trocar incisions of patients undergoing laparoscopic TEP repair of inguinal hernia reduces the need for analgesic medication by reducing early postoperative pain.

Status
Embase
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Publisher
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311.

Laparoscopic orchiopexy of palpable undescended testes_experience of a single tertiary institution with over 773 cases.
You J., Li G., Chen H., Wang J., Li S.
Embase
BMC Pediatrics. 20(1) (no pagination), 2020. Article Number: 124. Date of Publication: 16 Mar 2020.
[Article]
AN: 631232651
Background: Discuss the superiority of laparoscopic orchiopexy in the treatment of inguinal palpable undescended testes.
Method(s): Inclusion criteria: Preoperative examination and color Doppler ultrasound examination confirmed that the testes were located in the inguinal canal and could not be pulled into the scrotum, except for retractive and ectopic testes. The surgical steps were depicted as follow. The retroperitoneal wall was carved by ultrasonic scalpels, separates the spermatic vessels closed to the inferior pole of the kidney if necessary, dissects the peritoneum of vas deferens, cuts the testicular gubernaculum, and pulls back the testicle into the abdominal cavity. Besides, protect the vas deferens, and descend the testes to the scrotum and fix them without tension.
Result(s): There were 773 patients with 869 inguinal undescended palpable testes, 218 cases on the left side, 459 cases on the right side and 96 cases with bilateral undescended testes, whose age ranged from 6 months to 8 years, with an average of 20 months. All testes were successfully operated, no converted to open surgery. The average operation time was (34.8 +/- 5.4) min. There were 692 testes have an ipsilateral patent processus vaginalis (89.5%); In 677 cases of unilateral cryptorchidism, 233 cases (34.4%) have a contralateral patent processus vaginalis, and laparoscopic percutaneous extraperitoneal closure the hernia sac carry out during the surgery. There was no subcutaneous emphysema during the operation, no vomiting, no abdominal distension, no wound bleeding and obvious pain after surgery, especially wound infection is rarely. Doppler ultrasound was evaluated regularly after surgery. The patients were followed up for 6 to 18 months. All the testes were located in the scrotum without testicular retraction and atrophy. No inguinal hernia or hydrocele was found in follow-up examination.
Conclusion(s): Laparoscopic orchiopexy manage inguinal palpable cryptorchidism is safe and effective, and there are obvious minimally invasive advantages. Furthermore, It could discover a contralateral patent processus vaginalis, and treat at the same time, which avoid the occurrence of metachronous inguinal hernia.

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32178653 [https://www.ncbi.nlm.nih.gov/pubmed/?term=32178653]

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Publisher
BioMed Central Ltd. (E-mail: info@biomedcentral.com)
Year of Publication
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312.

Peri-operative pain management in hip arthroscopy: A systematic review of the literature.
Kolaczko J.G., Knapik D.M., Salata M.J.
Embase
Journal of Hip Preservation Surgery. 6(4) (pp 353-363), 2020. Date of Publication: 30 Jan 2020. [Review]
AN: 631244630
The purpose of this article was to review current literature on peri-operative pain management in hip arthroscopy. A systematic review of the literature on pain control in hip arthroscopy published January 2008 to December 2018 was performed. Inclusion criteria consisted of English language or articles with English translations, subjects undergoing hip arthroscopy with documented peri-operative pain control protocols in studies reporting Level I to IV evidence. Exclusion criteria were non-English articles, animal studies, prior systematic review or meta-analyses, studies not reporting peri-operative pain control protocols, studies documenting only pediatric (<18 years of age) patients, studies with Level V evidence and studies including less than five subjects. Statistical analysis was performed to assess pain protocols on narcotic consumption in PACU, VAS score on discharge, time to discharge from PACU and incidence of complications. Seventeen studies were included, comprising 1674 patients. Nerve blocks were administered in 50% of patients (n = 838 of 1674), of which 88% (n = 740 of 838) received a pre-operative block while 12% (n = 98 of 838) post-operative block. Sixty-eight complications were recorded: falls (54%, n = 37), peripheral neuritis (41%, n = 28), seizure (1.5%, n = 1), oxygen desaturation and nausea (1.5%, n = 1) and epidural spread resulting in urinary retention (1.5%, n = 1). No significant differences in narcotic consumption, VAS score at discharge, time until discharge or incidence of complication was found based on pain control modality utilized. No statistically significant difference in PACU narcotic utilization, VAS pain scores at discharge, time to discharge or incidence of complications was found between peri-operative pain regimens in hip arthroscopy.

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Year of Publication
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313.

Removal of a urinary catheter before discontinuation of epidural analgesia is associated with an increased risk of postoperative urinary retention and hospital episode costs in patients undergoing surgical correction for adolescent idiopathic scoliosis.
Sultan A.A., Berger R.J., Cantrell W.A., Samuel L.T., Ohliger E., Golubovsky J., Bachour S., Pasadyn S., Karnuta J.M., Tamer P., Le P., Kuivila T.E., Gurd D.P., Goodwin R.C.
Embase
Spine Deformity. 8(2) (pp 195-201), 2020. Date of Publication: 01 Apr 2020.
[Article]
AN: 2004309970
Objectives: In adolescent idiopathic scoliosis (AIS) patients undergoing posterior spinal instrumented fusion (PSIF), we aimed to answer these questions: (1) is there a difference in postoperative urinary retention (UR) rates among patients who had removal of their Foley catheters before vs. after discontinuation of epidural analgesia (EA)? (2) Can the timing of Foley catheter removal be an independent risk factor for postoperative UR requiring recatheterization? (3) Is there an incurred cost related to treating UR? Study design: Retrospective cohort.
Background(s): EA has been widely used for postoperative pain control after PSIF for AIS. In these patients, removing the Foley catheter, inserted for intraoperative monitoring of urine output, is indicated in the early postoperative period. However, a controversy exists as to whether it should be removed before or after the EA has been discontinued.
Method(s): A single-institution, longitudinally maintained database was queried to identify 297 patients who met specific inclusion and exclusion criteria. Patient characteristics and the order and timing of removing the urinary and epidural catheters were collected. Rates of UR were statistically compared in patients who had early vs. late urinary catheter removal. A univariate and multivariate regression analysis was conducted to identify independent risk factors. Hospital episode costs were analyzed.
Result(s): Patients who had early (n = 66, 22%) vs. late (n = 231, 78%) urinary catheter removal had a significantly higher incidence of UR requiring recatheterization (15 vs. 4.7%, p = 0.007). Patient with early removal were almost 4 times more likely to develop UR requiring recatheterization [odds ratio (OR) 3.8, 95% confidence interval (CI) 1.5-9.7, p = 0.005]. UR incurred additional costs averaging $15,000/patient (p = 0.204).
Conclusion(s): In patients who had PSIF for AIS, removal of a urinary catheter before discontinuation of EA is an independent risk factor for UR, requiring recatheterization and associated with increased cost.
Level of Evidence: III.

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31981148 [https://www.ncbi.nlm.nih.gov/pubmed/?term=31981148]
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Publisher
Springer
Year of Publication
2020

314.

A Review of Middle Aortic Syndromes in Pediatric Patients.
Forman N., Sinskey J., Shalabi A.
Embase
Journal of Cardiothoracic and Vascular Anesthesia. 34(4) (pp 1042-1050), 2020. Date of Publication: April 2020.
[Review]
AN: 2002546517
Middle aortic syndrome (MAS) is a rare vascular disease occurring in pediatric patients. MAS describes narrowing of the abdominal aorta, often referred to as abdominal coarctation. Extra-aortic vessels are commonly involved, including the renal and mesenteric arteries. Pediatric patients with MAS frequently present with severe hypertension, and medical management often is insufficient. Many of these patients require endovascular or open surgical intervention. This review article discusses the etiology, symptoms, and management of pediatric MAS. It highlights the preoperative, intraoperative, and postoperative anesthetic management of these patients. It is important that anesthesiologists be aware of this rare disease and its special anesthetic considerations when caring for children with MAS because of its high morbidity.

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Publisher
W.B. Saunders
Year of Publication
2020

315.

Single-incision approach for bilateral inguinal hernia repair in children: A retrospective study.
Chongxi R., Hongqiao W., Fengying L., Xin W., Hongxia Q., Lijun X., Huerta S.
Embase
Medicine (United States). 99(9) (no pagination), 2020. Article Number: e19376. Date of Publication: 2020.
[Article]

AN: 631081094
To introduce the use of a new surgical approach named single-incision bilateral inguinal herniorrhaphy (SBIH) in pediatric surgical population.This was a STROBE-compliant retrospective cohort study using data from 101 patients who had undergone bilateral inguinal herniorrhaphy in our institution. Children with bilateral inguinal hernias without contraindications for surgery, ranging in age from 6 months to 12 years, were included. Fifty-six children with bilateral inguinal hernias underwent SBIH (SBIH group) and 45 patients underwent laparoscopic bilateral inguinal herniorrhaphy (LBIH) (LBIH group). Differences in operative time, postoperative pain, recurrence, and complications between the 2 groups were analyzed. Patient satisfaction with cosmetic result was also investigated using questionnaires.There were no statistically significant differences in operative time (P=.2257), postoperative pain (P=.0607), recurrence (P=.8756), and complications (P=.7467) between the 2 groups. Interestingly, the operation time of girls in SBIH group was significantly shorter than that of the boys in this group (P<.0001), but also shorter than that of girls in LBIH group (P=.0038). Postoperative pain for boys was lower in SBIH group than in the LBIH group (P=.0340). No ascending testis, testicular atrophy, and hydrocele occurred in either group. According to the questionnaire, both procedures had equally high levels of satisfaction for cosmetic results (P=.7531).Initial results show that SBIH for pediatric patients, regardless of gender, is a safe and feasible procedure compared with LBIH with an equally low recurrence rate, few complication, and satisfactory cosmetic outcomes.

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Publisher
Lippincott Williams and Wilkins (E-mail: kathiest.clai@apta.org)
Year of Publication
2020

316.

Efficacy and Safety of Supracostal Access for Mini Percutaneous Nephrolithotomy in Pediatric Patients.
Shekar P. A., Ansari M.S., Syal S., Madhavan K., Srivastava A., Soni R., Yadav P.
Embase
Urology. 137 (pp 152-156), 2020. Date of Publication: March 2020.
[Article]
AN: 2004602086
Objective: To evaluate the efficacy and safety of supracostal percutaneous nephrolithotomy (PCNL) through the 11th intercostal space and compare it with subcostal PCNL in children with renal calculi.
Material(s) and Method(s): Children with renal calculi who underwent PCNL between January 2010 and December 2017 were divided into 2 groups: supracostal PCNL (group 1) and subcostal PCNL (group 2). Stone location, stone burden, location of the access points, operative time, postoperative visual pain score, success rate, hospital stay, and complications according to the modified Clavien classification were compared. Comparison of medians was done using Mann Whitney U test and the means were compared using t test.

Result(s): Group 1 had 50 patients while group 2 had 60 patients. The stone-free rate was 84.0% and 85.0% in groups 1 and 2, respectively after 1 session of PCNL (P =.885). After auxiliary procedures, it increased to 96.0% and 96.6%, respectively (P =.852). The mean fall in hematocrit was 0.9% in group 1 and 1.5% in group 2 (P =.11) whereas the median pain score was 4 in group 1 and 3 in group 2 (P =.37). In all, 54 complications were recorded the commonest among which were grade I (81.5%). Twenty-nine complications were observed in group 1 while 25 complications were observed in group 2 (P =.088). One patient developed nephropleural fistula while another patient developed hydropneumothorax. Both belonged to group 1.
Conclusion(s): Supracostal access for PCNL is an effective and safe alternative to subcostal access for children with renal calculi in terms of stone-free rate and complications.

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Embase
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Year of Publication
2020

317.

Single-port laparoscopy-Assisted vaginal repair of a cesarean scar defect: A single-center retrospective study.
Zhang Y.-L., Wang G.-C., Qu J.-J., Du G.-Q., Zhou W.-Q., Hao X.-Y., Chen L.-M.
Embase
Chinese Medical Journal. 133(3) (pp 285-291), 2020. Date of Publication: 2020.
[Article]
AN: 631056992
Background:The incidence of uterine cesarean scar defect (niche) is high, and some patients require surgery. Single-port laparoscopy can reduce post-operative pain, and provide better cosmetic effects. This study was performed to evaluate the safety and superiority of single-port laparoscopy-Assisted vaginal repair of uterine cesarean scar defect (niche) in women after cesarean section.
Method(s):This study included 74 patients who were diagnosed with uterine cesarean niche at the Shanghai First Maternity and Infant Hospital from January 2013 to June 2015. Thirty-seven patients underwent single-port laparoscopy-Assisted vaginal surgery as the case group, and the remaining patients underwent vaginal repair surgery as the control group. We collected data from the inpatient and follow-up medical records. The clinical characteristics of these two groups were compared. The odds ratios and 95% confidential intervals were calculated for each variable by univariate and multivariate analyses.
Result(s):Patients who underwent single-port laparoscopy-Assisted vaginal repair had a significantly longer operation time (2.3 [2.0-2.7] vs. 2.0 [1.6-2.3] h, P=0.015), shorter gas passage time (1.2 [1.0-1.5] vs. 1.7 [1.0-2.0] days, P=0.012), shorter hospital stay (3.1 [3.0-4.0] vs. 4.5 [4.0-6.0] days, P=0.019), and fewer complications (0 vs. 4 cases). Univariate analysis showed that depth of the niche (P=0.021) the mild adhesiolysis score (P=0.035) and moderate adhesiolysis score (P=0.013) were associated with the bladder injury. Multivariate analysis showed that the moderate adhesiolysis score (P=0.029; 95% confidence interval, 1.318-3.526) was the strongest independent predictor of bladder injury.

Conclusion(s):This study confirmed the safety and superiority of single-port laparoscopy-Assisted vaginal repair of uterine cesarean scars.

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Publisher
Lippincott Williams and Wilkins (E-mail: kathiest.clai@apta.org)
Year of Publication
2020

318.

Proposed pathway for patients undergoing enhanced recovery after spinal surgery: Protocol for a systematic review.
Licina A., Silvers A., Laughlin H., Russell J., Wan C.
Embase
Systematic Reviews. 9(1) (no pagination), 2020. Article Number: 39. Date of Publication: 21 Feb 2020.
[Article]
AN: 630992035
Background: The best evidence-enhanced recovery care pathway is yet to be defined for patients undergoing spinal surgery. Minimally invasive surgery, multimodal analgesia, early mobilization, and early postoperative nutrition have been considered as critical components of enhanced recovery in spinal surgery (ERSS). The objective of this study will be to synthesize the evidence underpinning individual components of a proposed multidisciplinary enhanced recovery pathway for patients undergoing spinal surgery.
Method(s): This is the study protocol for a systematic review of complex interventions. Our team identified 22 individual care components of a proposed pathway based on clinical practice guidelines and published reviews. We will include systematic reviews and meta-analysis, randomized controlled trials, non-randomized controlled trials, and observational studies in adults or pediatric patients evaluating any one of the pre-determined care components. Our primary outcomes will be all-cause mortality, morbidity outcomes (e.g., pulmonary, cardiac, renal, surgical complications), patient-reported outcomes and experiences (e.g., pain, quality of care experience), and health services outcomes (e.g., length of stay and costs). We will search the following databases (1990 onwards) MEDLINE, EMBASE, and Cochrane Library (Cochrane Database of Systematic Reviews and CENTRAL). Two reviewers will independently screen all citations, full-text articles, and abstract data. Potential conflicts will be resolved through discussion. The risk of bias for individual studies will be appraised using appropriate tools. A narrative synthesis will be provided with the information presented in the text and tables to summarize and explain the characteristics and findings of the included studies. Due to clinical and methodological heterogeneity, we do not anticipate to conduct meta-analyses. Confidence in cumulative evidence for each component of care will be classified according to the GRADE system.
Discussion(s): This systematic review will identify, evaluate, and integrate the evidence underpinning individual components of a pathway for patients undergoing spinal surgery. The formation of an evidence-based pathway will allow for the standardization of clinical care delivery

within the context of enhanced recovery in spinal surgery. Systematic review registration: PROSPERO CRD42019135289

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Publisher
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Year of Publication
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319.

A pilot study of the effectiveness of a serious game CliniPup on perioperative anxiety and pain in children.
Matthyssens L.E., Vanhulle A., Seldenslach L., Vander Stichele G., Coppens M., Van Hoecke E.
Embase
Journal of Pediatric Surgery. 55(2) (pp 304-311), 2020. Date of Publication: February 2020.
[Article]
AN: 2003888860
Introduction/Aim: Children experience important anxiety before surgery. Anxiety and pain are positively correlated. Serious gaming is a non-pharmacological intervention to prepare children and parents for an operation. We aimed to evaluate the effectiveness of the serious game CliniPup on anxiety and pain in children undergoing ambulatory surgery.
Method(s): A prospective randomized controlled pilot trial in 72 children aged 5 to 11 years old scheduled for day-care surgery (general surgery, dentistry, otorhinolaryngology, urology) was performed. Participants were randomly assigned into 3 groups: A (CliniPup), B ("Empty game" without educational information), or C (no game, oral information at the outpatient clinic, current standard of care). Anxiety, pain, and behaviour were evaluated by validated instruments at six time-points: T0: baseline, T1: 1 week preoperatively, T2: at hospital admission, T3: before discharge, T4: 1 week postoperatively, T5: 1 month postoperatively.
Result(s): After playing the game (T1), the estimated mean anxiety score (VASa) was lower in Group A (1.9 units) versus Group B (2.7 units). The estimated mean VASa at T1 for Group A was 2.6 units lower compared to Group C (p = 0.003). For Group B, VASa levels were 1.8 units lower than in Group C (p = 0.045). After correction for "surgery type", Group A continued to show a significantly lower VASa compared to Group C (p = 0.044). On the other time points, no difference in anxiety and pain were observed, nor in post-hospitalization behaviour.
Conclusion(s): Children that played the CliniPup game one week before surgery had a significant reduction in preoperative anxiety after playing the game, but not on the other time points. No differences on peri-operative pain were observed during the different time points.
Type of Study: Randomized Trial.
Level of Evidence: Level II.

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Publisher
W.B. Saunders
Year of Publication
2020

320.

Postoperative pain management for circumcision; Comparison of frequently used methods.
Munevveroglu C., Gunduz M.
Embase
Pakistan Journal of Medical Sciences. 36(2) (pp 91-95), 2020. Date of Publication: January-February 2020.
[Article]
AN: 2003428158
Objective: To determine the ideal method for postoperative pain management after circumcision by comparing the most frequently used different methods like; dorsal penile block, caudal epidural block, subcutaneous ring block, intravenous paracetamol and intravenous tramadol HCl.
Method(s): Between May 1st 2015 to May 1st 2016, 500 children between 2-10 year old were circumcised at the department of pediatric surgery of Istanbul Medipol University Health Care Practice & Research Center Sefakoy Hospital. Five groups were formed according to postoperative analgesia methods which were planned to be compared; Group-I. penile block, Group-II. Caudal epidural block, Group-III. subcutaneous ring block, Group-IV as intravenous paracetamol and Group-V as intravenous tramadol HCl. In order to evaluate the postoperative pain levels of children, Children's Hospital Eastern Ontario Pain Scale (CHEOPS) was filled at 30, 60, 120, 180 minutes after circumcision by a researcher who does not know which method was applied.
Result(s): No significant difference is found between the groups ($p>0.05$). In the statistical analysis, no significant difference was found in the effect of analgesia methods on CHEOPS scores between 30, 60, 120 and 180 minutes ($p>0.05$). In parallel with this result, no significant difference was found in the effect of heart beat rates and respiration rate averages between 30, 60, 120 and 180 minutes ($p>0.05$).
Conclusion(s): It has been shown that none of the five method has any superiority in reducing pain after circumcision and that all five methods can be used. However, we think that side effects of regional anesthesia and systemic analgesic applications should not be ignored.

Status
Embase
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Professional Medical Publications (Raja Ghazanfar Ali Road, Saddar, Karachi, Pakistan)
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2020

321.

Quadratus Lumborum Block As A Single Anesthetic Method For Laparoscopic Totally Extraperitoneal (Tep) Inguinal Hernia Repair: A Randomized Clinical Trial.
Favaro M.L., Gabor S., Souza D.B.F., Araujo A.A., Milani A.L.C., Ribeiro Junior M.A.F.
Embase
Scientific reports. 10(1) (pp 8526), 2020. Date of Publication: 22 May 2020.
[Article]
AN: 631861445
Minimally invasive surgery for inguinal hernia repair is advantageous in terms of return to usual activities and lower rates of chronic pain; however, it requires general anesthesia. This study sought to analyze the benefits of ultrasound guided locoregional anesthesia of the quadratus lumborum muscle (QL block) as a single anesthetic technique for endoscopic totally extraperitoneal (TEP) inguinal hernia repair with regard to postoperative pain, length of hospital stay, and hospital cost. A total of 46 patients, aged 18 to 80 years, with unilateral inguinal hernia, one group that received general anesthesia and one that received sedation and QL block for TEP inguinal hernia repair. In the 46 patients the median pain score 6hours after surgery was significantly lower (2 versus 4) among the QL block group than among the group receiving general anesthesia. Consequently, the former group showed a briefer median hospital stay (6 versus 24hours, respectively). The anesthesia and hospital costs were also lower for the QL block group, with median reductions of 64.15% and 25%, respectively. QL block is a safe and effective option for patients undergoing TEP inguinal hernia repair, given the observed reduction in early postoperative pain, briefer hospital stay, and decreased anesthesia and hospital costs.
PMID
32444629 [https://www.ncbi.nlm.nih.gov/pubmed/?term=32444629]
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Publisher
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Year of Publication
2020

322.

Enhanced Recovery After Surgery (ERAS) is safe, feasible and effective in elderly patients undergoing laparoscopic colorectal surgery: results of a prospective single center study.
Crucitti A., Mazzari A., Tomaiuolo P.M., Dionisi P., Diamanti P., Di Flumeri G., Donini L.M., Bossola M.
Embase
Minerva chirurgica. 75(3) (pp 157-163), 2020. Date of Publication: 01 Jun 2020.
[Article]
AN: 631026048
BACKGROUND: It is still unknown whether ERAS program is safe, feasible and effective in elderly patients undergoing laparoscopic colorectal surgery. In addition, the definition of the "old patient" in terms of age varies across the studies and different age cut-off, such as 65, 70, and 75 years have been used worldwide.
METHOD(S): All adult patients undergoing primary, elective colorectal laparoscopic surgery between January 2017 and December 2018 were considered eligible to follow the ERAS protocol according to the Enhanced Recovery After Surgery (ERAS) Society guidelines. Elderly were defined according three different cut-off values: <65 and >=65 years, <70 and >=70 years, <75 and >=75 years.
RESULT(S): One hundred and eight patients were included in the study. Adherence to protocol did not differ significantly between younger and older patients, for most of the items. Thirty-day mortality was absent. The frequency of postoperative complications globally considered and the frequency of the various single complications did not differ significantly between younger and older patients, independently of the cutoff considered to define the older age. Similarly, the frequency of re-intervention and readmission was similar in younger and older patients. Time to flatus and time to stool were similar in young and older patients, independently of the age cut-off used. Time to oral liquid diet was similar in patients with age <65 and >=65 years while it was moderately longer in patients >=70 years (1.5+/-1.1 days;) than in those <70 years (1.1+/-0.4 days; P=0.030) as well as in patients >=75 years with respect to the younger ones (1.2+/-0.5 vs. 1.6+/-1.2 days; P=0.045). The time to oral solid feeding was similar in young and old patients, independently of the age cut-off used. Time to bladder catheter removal was significantly longer in older patients, independently of the age cut-off used, although the differences do not seem to be clinically relevant. The length of stay was significantly higher in older patients, when the cutoff of 70 years or 75 years was used, but did not differ significantly when the cut-off of 65 years was used.
CONCLUSION(S): The present study shows that the ERAS protocol is safe, feasible, and effective in elderly patients as in the young ones, undergoing laparoscopic elective colorectal surgery. This suggests that the ERAS program can be applied usefully to elderly patients in the routine clinical practice.
PMID
32083412 [https://www.ncbi.nlm.nih.gov/pubmed/?term=32083412]
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Publisher
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2020

323.

Codeine for Acute Pain for Urological or General Surgery Patients: A Review of Clinical Effectiveness
Marchand DK, Ford C
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Canadian Agency for Drugs and Technologies in Health. CADTH Rapid Response Reports2019 12 02.
[Review]
UI: 32129964
Surgical procedures can cause inflammation, tissue injury (e.g., mechanical, thermal, chemical), or nerve injury (e.g., transection, stretching, compression). These types of inflammation or injury result in pain which can be classified as acute (lasting for minutes to several weeks), or chronic (lasting months to years). , This report will focus on acute pain as a result of urological or general surgery, where urological surgery concerns the male and female urinary tract and the genital organs in males, and general surgery concerns surgical problems outside any specific specialties (e.g., upper and lower gastrointestinal tract, hepatobiliary, pancreatic, soft tissues, hernias5). The goals of therapy for postoperative acute pain include the recognition that the patient is experiencing pain, the anticipation and pre-emptive relief of pain, the rapid reduction of pain intensity, and the general minimisation of discomfort.-, Treatment should be continued as long as the patient is experiencing pain. Typically, therapeutic options for postoperative pain control are multimodal and tailored to the patient's characteristics, their needs, and the level of pain associated with the surgery. These factors will determine the type of analgesic technique (i.e., systemic, regional, local), as well as the class of pharmacotherapy (e.g., opioid, non-opioid) that should be privileged. Opioids (e.g., morphine, fentanyl, hydromorphone, oxycodone, codeine) are the most widely used treatment of postoperative pain;, however, non-opioids (e.g., non steroidal anti-inflammatory drugs, acetaminophen, salicylates) can also be used., This being said, opioid prescribing practices have come under scrutiny in recent years as Canada and other jurisdictions battle with an opioid epidemic. Overprescribing by physicians,- and the diversion of non-consumed supplies, have been recognised as a contributor to the national opioid epidemic. As a result, there has been a desire to optimize opioid prescribing after surgery, when patient and surgical factors make this possible. Specifically, the role of codeine for pain management in urological or general surgery is being questioned and will be the focus of the present report. In Canada, several formulations of codeine are available for treatment of pain. Codeine primarily agonises the mu receptor., It is metabolised in the liver by the cytochrome P450 system, specifically via the CYP2D6 isoenzyme, to various metabolites including morphine,, which accounts for some of its analgesic effect.,, The rate of metabolism by the CYP2D6 isoenzyme is known to vary in the general population,, which highlights the variety of pain relief that can been observed when codeine is used as a single agent. It is a relatively weak opioid, and may also be used in combination with acetaminophen, where an additive analgesic effect is seen. Two related CADTH reports, published in 2019, sought clinical effectiveness evidence on codeine for orthopedic surgery and acute pain in pediatrics. The first report identified two relevant systematic review that did not contain any relevant literature, while the second report identified one systematic review, three randomized controlled trials, and one non-randomized study. The objective of the present report is to investigate the clinical effectiveness of codeine or codeine with acetaminophen for the management of acute pain in adults post urological or general surgery.

Book Title
Codeine for Acute Pain for Urological or General Surgery Patients: A Review of Clinical Effectiveness
Version ID

1
Authors Full Name
Marchand, Dave K., Ford, Caitlyn
Publisher
Canadian Agency for Drugs and Technologies in Health
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324.

Ultrasound-guided quadratus lumborum block for postoperative pain control in patients undergoing unilateral inguinal hernia repair, a comparative study between two approaches.
Ahmed A, Fawzy M, Nasr MAR, Hussam AM, Fouad E, Aboeldahb H, Saad D, Osman S, Fahmy RS, Farid M, Waheb MM
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
BMC Anesthesiology. 19(1):184, 2019 10 17.
[Comparative Study. Journal Article. Randomized Controlled Trial]
UI: 31623572
BACKGROUND: Early postoperative ambulation and reduction of hospital stay necessitate efficient postoperative analgesia. Quadrates Lumborum Block (QLB) has been described to provide adequate postoperative analgesia after abdominal surgery. This randomized comparative trial was designed to compare the duration of analgesia provided by two different QLB approaches; the posterior QLB (QLB-2) and transmuscular QLB (QLB-3) in patients undergoing surgical repair of unilateral inguinal hernia.
METHODS: Forty patients, aged from 18 to 50 years, ASA physical status I or II, scheduled for unilateral inguinal hernia repair were enrolled. At the end of the surgical procedure and before recovery from general anesthesia, Patients were randomly assigned into two groups to receive either posterior QLB (Group QLB-2) or transmuscular QLB (Group QLB-3) using 20 ml 0.25% bupivacaine. Duration of analgesia, postoperative VAS and postoperative opioid consumption were recorded.
RESULTS: Duration of block was significantly longer in QLB-3 group when compared to QLB-2 group (20.1 + 6.2 h versus 12.0 + 4.8 respectively) with P value of < 0.001. A statistically significant lower VAS score was recorded in QLB-3 group immediately and 12 h postoperative. QLB-3 group showed a statistically significant delayed time of first analgesic request and less postoperative morphine consumption with P value of < 0.001 and 0.001 respectively.
CONCLUSIONS: Ultrasound guided postsurgical transmuscular approach of QLB (QLB-3) using 20 ml 0.25% bupivacaine produces more postoperative analgesic effect and less postoperative opioid consumption when compared to posterior QLB approach (QLB-2) in patients underwent unilateral inguinal hernia repair under general anesthesia.
TRIAL REGISTRATION: ClinicalTrials.gov identifier: NCT03526731 - on 16 May 2018.
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1
Status
MEDLINE
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2019

325.

TEP versus Lichtenstein, which one to choose? A retrospective cohort study.
Urkan M, Peker YS
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Revista Da Associacao Medica Brasileira. 65(9):1201-1207, 2019.
[Comparative Study. Journal Article]
UI: 31618338
OBJECTIVES: Inguinal hernioplasty techniques have been improved since the first hernioplasty. Tension-free techniques that apply synthetic mesh materials, as in the Lichtenstein approach, are the gold standard. Laparoscopic hernioplasty is the strongest alternative to Lichtenstein. The superiority of laparoscopic hernioplasty over Lichtenstein is a major topic of debate. In this study, we aimed to find a conclusion to this debate by comparing our totally extraperitoneal (TEP) experiences with Lichtenstein experiences.
METHODS: Patients who underwent inguinal hernioplasty at the Gulhane Training and Research Hospital from 2013 to 2018 were included in this retrospective cohort study. The sample included 96 TEP and 90 Lichtenstein patients for a total of 186 patients. The variables assessed were

hospitalization duration, postoperative early visual analog scale score, chronic pain, paresthesia, recurrence, and early postoperative complications. Data were collected from patient records and via telephone questionnaire if needed. Data analysis was done by SPSS v20, using chi-square, Fisher's exact, and Mann-Whitney U tests.
RESULTS: Male/female ratios were similar between the TEP and Lichtenstein groups. There was no difference in mean age between groups (p=0.1). The hospital stay was shorter (p=0.0001), and early postoperative visual analog scale score was lower in the TEP group (p=0.003). Chronic pain, paresthesia, recurrence, and early postoperative complications (hematoma, seroma, wound infection) were similar.
CONCLUSIONS: TEP is superior to Lichtenstein with shorter hospitalization duration and lower rates of early postoperative pain. No difference between the two techniques was found for chronic pain. We believe that laparoscopic hernioplasty approach may be the best alternative technique for inguinal hernia repair.
Version ID
1
Status
MEDLINE
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Comments
Comment in (CIN)
Year of Publication
2019

326.

Continuation of low-dose acetylsalicylic acid during perioperative period of laparoscopic inguinal hernia repair is safe: results of a prospective clinical trial.
Yan Z, Liu Y, Ruze R, Xiong Y, Han H, Zhan H, Wang M, Zhang G
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Hernia. 23(6):1141-1148, 2019 Dec.
[Clinical Trial. Journal Article]
UI: 31489509
PURPOSE: Patients taking acetylsalicylic acid are common in surgical departments; in most cases, acetylsalicylic acid is discontinued 5-7 days before the operation to minimize the intra- and postoperative bleeding, but the perioperative management of patients under antithrombotic and anticoagulative treatments is controversial. This study aims to address whether the low-dose acetylsalicylic acid increases bleeding and occurrence of postoperative complications after laparoscopic inguinal hernia repair when it was only ceased on the operation day.
METHOD: From July 2017 to January 2019, 901 patients including 781 (86.7%) male and 120 (13.3%) female patients underwent laparoscopic inguinal hernia repair using trans-abdominal preperitoneal (TAPP) technique were recruited, among whom 152 (16.9%) had been taking low-dose (100 mg per day) acetylsalicylic acid which was continued during hospitalization except the operation day. The intra-operative bleeding volume, postoperative pain, overall occurrence of complications such as seroma, hematoma, scrotal edema, calf muscle venous thrombosis, and the time of resuming normal activities were compared with patients on whom these medications were not needed.

RESULTS: The age, BMI, hospital stay, ASA classification, morbidity of CHD and hypertension, FIB value, and the time of resuming normal activities of patients taking acetylsalicylic acid were higher ($p < 0.05$). There was no significant difference on mean operative time, intra-operative bleeding volume, and the occurrence postoperative complications among two groups.
CONCLUSION: For patients with inguinal hernias, laparoscopic TAPP repair is completely safe to be performed on those taking low-dose acetylsalicylic acid when it was only ceased on the operation day, with intravenous salvianolate given after the operation instead.
Version ID
1
Status
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Year of Publication
2019

327.

Effects of dezocine for the prevention of postoperative catheter-related bladder discomfort: a prospective randomized trial.
Zhang GF, Guo J, Qiu LL, Li SM, Zheng M, Xia JY, Yang JJ
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Drug design, development & therapy. 13:1281-1288, 2019.
[Clinical Trial. Journal Article. Randomized Controlled Trial]
UI: 31114164
Purpose: To evaluate the effects of dezocine on the prevention of postoperative catheter-related bladder discomfort (CRBD). Patients and methods: Ninety-six adult patients undergoing abdominal surgery with urinary catheterization under general anesthesia were randomized into dezocine and control (flurbiprofen) groups. The postoperative CRBD, pain score, sedation score and adverse effects were evaluated at 0, 1, 2 and 6 hrs after tracheal extubation.
Results: The primary outcome showed a lower incidence of CRBD at 1 hr post-extubation in the dezocine group (29.17%) than the control group (58.33%, $P<0.01$). The incidences at 0 and 2 hrs

post-extubation and the overall incidence were also lower in the dezocine group than the control group (all P<0.05). The severity of CRBD at 0, 1, 2 and 6 hrs and the pain, sedation score and other adverse effects were comparable between the two groups (P>0.05); however, the overall severity of CRBD was decreased in the dezocine group compared with the control group (P<0.05). Conclusion: Intraoperative dezocine reduces the incidence and severity of postoperative CRBD without clinically relevant adverse effects.
Version ID
1
Status
MEDLINE
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Year of Publication
2019

328.

Vesicoureteral antireflux surgery with Lich-Gregoir technique without vesical drainage: Long-term results. Resultados a largo plazo de cirugia antirreflujo vesicoureteral con tecnica de Lich-Gregoir sin drenaje vesical. <Resultados a largo plazo de cirugia antirreflujo vesicoureteral con tecnica de Lich-Gregoir sin drenaje vesical.>
Fadil Iturralde JL, Marani J, Contardi JC, Damiani HJ
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Actas Urologicas Espanolas. 43(8):439-444, 2019 Oct.
[Journal Article]
UI: 31103395
OBJECTIVE: To describe our long-term experience with patients with vesicoureteral reflux (VUR) who underwent conventional surgery without postoperative bladder drainage.
MATERIAL AND METHODS: Retrospective review of 45 patients surgically treated by extravesical Lich-Gregoir's ureterovesical reimplantation without postoperative bladder drainage between 2010 and 2013.

RESULTS: 37 women (82.2%) and 8 men (17.8%). 28 patients with unilateral reflux, and 17 patients with bilateral reflux with a total of 62 operated kidneys. The mean age at surgery was 6 years (2 to 11 years). The main cause of surgical indication was the persistence of reflux in patients older than 6 years (73.3%); with grade III VUR (75.6%) being the most frequent. The mean surgical time was 44minutes (35-70) for unilateral reimplantation, and 70minutes (53-98) for bilateral ones. All patients presented spontaneous urination in the immediate postoperative period, without pain, no hematuria, full incontinence, and without a bladder balloon. None required bladder catheter placement, and hospital discharge was indicated between 7 and 36hours postoperatively (mean 11h). All continued with spontaneous micturitions, without postvoid residual or voiding dysfunction during the 5-year follow-up.
CONCLUSION: The thorough selection of the patients, the detailed surgical gestures, the bladder emptying without instrumentation of the urethra, together with a correct use of analgesics and early ambulation allowed excellent outcomes obtained in these patients managed with a short hospital stay and without bladder drainage, also demonstrating the safety of the procedure at 5 years of follow-up.

Version ID
1
Status
MEDLINE
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Year of Publication
2019

329.

Effect of Alprazolam as a Preoperative Adjuvant Analgesic on Postoperative Pain in Laparoscopic Donor Nephrectomy Patients.
Avanaz A, Yaprak M, Dogru V, Mesci A, Akbas M, Kisaoglu A, Demiryilmaz I, Aydinli B
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Transplantation Proceedings. 51(4):1044-1048, 2019 May.
[Journal Article]
UI: 31101168
OBJECTIVE: The aim of this study was to evaluate the effectiveness of alprazolam, administered at different doses, for the control of adjuvant analgesia in laparoscopic donor nephrectomy patients preoperatively in the Akdeniz University Organ Transplantation Center, using various pain scales.
MATERIALS AND METHODS: Only patients with a body mass index <=28 kg/m2, aged between 18 and 65 years old, and with an American Society of Anesthesiologists score of 1 to 2 were included in the study. The patients were studied in 3 groups, which were given 0.5 mg alprazolam

(group 1), 1 mg alprazolam (group 2), or no alprazolam (group 3) in the preoperative period. Collected data were evaluated for preoperative, intraoperative, and postoperative periods.
RESULTS: There were 75 patients (31 men, 44 women). Mean age was 43.1 years. Twenty-five patients were evaluated in all 3 groups. Mean operation time was 137.8 minutes. There was no statistical difference among the groups in the duration of administered alprazolam before the operation, on the Ramsey sedation score, verbal pain score, or numeric pain score, and duration of administered first analgesic in the postoperative period. Additional dose of analgesics were administered in 7, 7, and 11 of the patients in group 1, group 2, and group 3, respectively. We found a significant difference between groups 1 and 2 in blood pressure (P = .017 and P = .014). We found a significant difference in group 1 in heart rate (P = .002).
CONCLUSION: More effective analgesia protocols need to be identified for pain control in patients of laparoscopic donor nephrectomy. It is thought that the effectiveness of pain control may increase the number of donors and progress in the treatment of patients with renal failure.

Version ID
1
Status
MEDLINE
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Year of Publication
2019

330.

Effect of Prophylactic Ilioinguinal Neurectomy on Postoperative Groin Pain Following Lichenstein Hernioplasty.
Sharif A, Akhtar T, Akhtar M, Malik I, Hanif M, Zia N
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Jcpsp, Journal of the College of Physicians & Surgeons - Pakistan. 29(5):406-409, 2019 May. [Journal Article. Randomized Controlled Trial]
UI: 31036106
OBJECTIVE: To compare mean postoperative pain post-Lichenstein open hernioplasty with and without ilioinguinal neurectomy at six months.
STUDY DESIGN: Randomised controlled trail.
PLACE AND DURATION OF STUDY: Surgical Unit-I, Benazir Bhutto Hospital, Rawalpindi, from August 2014 to February 2015.
METHODOLOGY: Adult male patients with unilateral reducible inguinal hernia, who consented to the study between the age range of 18-80 years, were included. Recurrent, irreducible or strangulated, or large inguinal-scrotal hernia and those with previous abdominal incision, impaired

cognition, peripheral neuropathy, limited mobility and females were excluded. Patients were equally randomised to nerve-preservation and excision groups. Mann-Whitney U-test was applied to find out difference in inguinodynia at 1 and 6 months.
RESULTS: There was significant difference in pain at 1 month in the nerve-preservation group (Md=6.00, IQR=4, n=90) and nerve excision group (Md=3.50, IQR=4, n=90), U=2308.00, z=-5.017, p<.001 and at 6 months in the nerve preservation group (Md=2.00, IQR=1, n=90) and nerve-excision group (Md=0.00, IQR=1, n=90), U=3001.00, z=-3.470, p=0.001.
CONCLUSION: Prophylactic ilioinguinal neurectomy significantly reduces groin pain at 6 month as compared to nerve preservation group following Lichenstein hernioplasty.
Version ID
1
Status
MEDLINE
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Year of Publication
2019

331.

Association of new opioid continuation with surgical specialty and type in the United States.
Bicket MC, Murimi IB, Mansour O, Wu CL, Alexander GC
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
American Journal of Surgery. 218(5):818-827, 2019 11.
[Journal Article]
UI: 31023548
BACKGROUND: The consequences of opioids-including post-surgical prescriptions-remain a critical public health issue. We sought to determine how procedure type and subspecialty group influence new opioid use after procedures.
METHODS: We analyzed 2011-2015 IBM MarketScan Research Databases to identify opioid-naive adults prescribed opioids for single surgical procedures. We defined new opioid continuation (primary outcome) a priori as receipt of prescription opioids between 90 and 180 days after the procedure.
RESULTS: Among 912,882 individuals, new opioid continuation was higher for non-operating room compared to operating room procedures (13.1% versus 9.2%; aOR 1.61; 95% CI 1.59-1.64) and higher for subspecialties including colorectal surgery (aOR 1.35; 95% CI 1.26-1.43) and cardiovascular surgery (aOR 1.30; 95% CI 1.12-1.50) compared to urology as a referent. New opioid continuation was also associated with perioperative opioid prescription dosage, days' supply, preoperative receipt, and multiple prescriptions.
CONCLUSIONS: Opioids prescriptions associated with non-operating room surgical exposures appear to confer higher risk regarding conversion to new long-term opioid use.

Version ID
1

Status
MEDLINE
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Year of Publication
2019

332.

Retroperitoneal high ligation versus subinguinal varicocelectomy: Effectiveness of two different varicocelectomy techniques on the treatment of painful varicocele.
Akkoc A, Aydin C, Topaktas R, Altin S, Ucar M, Topcuoglu M, Bugra Senturk A
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Andrologia. 51(7):e13293, 2019 Aug.
[Comparative Study. Journal Article]
UI: 30995701
In the present study, we compared the retroperitoneal high ligation with subinguinal varicocelectomy on the treatment of painful varicocele. A total of 90 patients who underwent retroperitoneal high ligation (n = 45) and subinguinal varicocelectomy (n = 45) for painful varicocele were included in this prospective study. Varicocele in all patients was diagnosed with by physical examination and coloured Doppler ultrasonography. All the patients underwent a conservative treatment for pain for 4 weeks. Patient ages, varicocele grades, preoperative pain scores, postoperative pain scores at 6 months, duration of surgeries, complications and recurrences were recorded. Complete success rate for chronic scrotal pain was found to be 80% in retroperitoneal varicocelectomy group and 71% in subinguinal varicocelectomy group. Partial success rate was 11% for retroperitoneal varicocelectomy group and 18% for subinguinal ligation group. There was no significant difference between two groups in terms of pain and complications. However, the operation time was significantly lower in the Palomo group. Although microsurgical subinguinal varicocelectomy is the current approach for the treatment of varicocele, retroperitoneal high ligation can achieve the same pain resolution with shorter operative duration compared to loupe-assisted subinguinal varicocelectomy.

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1
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Year of Publication
2019

333.

Long-term results from a randomized comparison of open transinguinal preperitoneal hernia repair and the Lichtenstein method (TULIP trial).
Bokkerink WJV, Koning GG, Malagic D, van Hout L, van Laarhoven CJHM, Vriens PWHE
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
British Journal of Surgery. 106(7):856-861, 2019 06.
[Comparative Study. Journal Article. Randomized Controlled Trial]
UI: 30994192
BACKGROUND: The short-term results of the TULIP trial comparing transinguinal preperitoneal (TIPP) inguinal hernia repair with the Lichtenstein method have been reported with follow-up of 1 year. After TIPP repair, fewer patients had chronic postoperative inguinal pain (CPIP); they had better health status and lower costs. The present study reports the long-term outcomes of this trial.
METHODS: All surviving patients initially randomized in the TULIP trial were contacted. Patients were interviewed by telephone and sent a questionnaire. Those reporting any complaints were invited for outpatient review. Chronic pain, hernia recurrence and reoperation were documented, along with any sensory change or disturbance of sexual activity.
RESULTS: Of 302 patients initially randomized, 251 (83.1 per cent) were included in the analysis (119 TIPP, 132 Lichtenstein), with a median follow-up of 85 (range 74-117) months. Of 25 patients with chronic postoperative inguinal pain after 1 year, only one, who underwent Lichtenstein repair, still had groin pain at long-term follow-up. The overall hernia recurrence rate was 2.8 per cent (7 patients), with no difference between the groups.

CONCLUSION: Both TIPP and Lichtenstein hernia repairs are durable. Patients with chronic postoperative inguinal pain after 1 year can be reassured that the groin pain tends to fade over time.

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1
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https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6593766
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334.

Success of Hospital Intervention and State Legislation on Decreasing and Standardizing Postoperative Opioid Prescribing Practices.
Zipple M, Braddock A
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Journal of the American College of Surgeons. 229(2):158-163, 2019 08.
[Journal Article]
UI: 30880121
BACKGROUND: We sought to evaluate change in postoperative prescription practices in an independent community-based hospital after hospital interventions and a state legislation change.
STUDY DESIGN: This is a retrospective review of opioid-naive adult subjects who underwent 5 common general surgical procedures between 2015 and 2017, including cholecystectomy, appendectomy, minimally invasive inguinal hernia repair, open inguinal hernia repair, and breast lumpectomy. Educational interventions were introduced, new statewide legislation was passed, and 129 subsequent cases were reviewed.
RESULTS: Mean +/- SD oral morphine equivalent (OME) prescribed for all procedures on retrospective review was 218.8 +/- 113.7 (n = 722), cholecystectomy 235.3 +/- 133.8 (n = 248), appendectomy 220.2 +/- 103.2 (n = 175), open inguinal hernia repair 214.4 +/- 97.2 (n = 119), minimally invasive inguinal hernia repair 187.7 +/- 87.8 (n = 117), and lumpectomy 212.5 +/-

114.5 (n = 63). There was significant variation in OME prescribed by procedure and by surgeon (p = 0.006 and p = 0.008, respectively). Review of post-intervention cases showed a significant reduction in the OME prescribed each year (mean OME 197.6 in 2015 to 2017 vs 72.3 in 2018; p < 0.005), and a 60% to 70% reduction in mean OME per procedure. Post-intervention data also revealed resolution of previously seen variation in prescription practices, and a significant increase in the percentage of patients prescribed multimodal pain therapy (23.5% in 2015 to 2017 to 31.5% in 2018; p < 0.05).
CONCLUSIONS: We achieved a 60% to 70% decrease in postoperative opioid prescription at our community hospital for 5 common surgical procedures, and resolution of variation in opioid prescription practices after a hospital-wide intervention and statewide legislation.

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Year of Publication
2019

335.

A Phase 3, Randomized, Placebo-Controlled Evaluation of the Safety of Intravenous Meloxicam Following Major Surgery.
Bergese SD, Melson TI, Candiotti KA, Ayad SS, Mack RJ, McCallum SW, Du W, Gomez A, Marcet JE
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Clinical Pharmacology in Drug Development. 8(8):1062-1072, 2019 11.
[Clinical Trial, Phase III. Journal Article. Multicenter Study. Randomized Controlled Trial. Research Support, Non-U.S. Gov't]
UI: 30786162
An intravenous (IV) formulation of meloxicam is being studied for moderate to severe pain management. This phase 3, randomized, multicenter, double-blind, placebo-controlled trial evaluated the safety of once-daily meloxicam IV 30 mg in subjects following major elective surgery. Eligible subjects were randomized (3:1) to receive meloxicam IV 30 mg or placebo administered once daily. Safety was evaluated via adverse events, clinical laboratory tests, vital signs, wound healing, and opioid consumption. The incidence of adverse events was similar between meloxicam IV- and placebo-treated subjects (63.0% versus 65.0%). Investigators assessed most adverse events as mild or moderate in intensity and unrelated to treatment. Adverse events of interest (injection-site reactions, bleeding, cardiovascular, hepatic, renal, thrombotic, and wound-healing events) were similar between groups. Over the treatment period, meloxicam IV was associated with a 23.6% (P = .0531) reduction in total opioid use (9.2 mg morphine equivalent) compared to placebo-treated subjects. The results suggest that meloxicam IV had a safety profile similar to that of placebo with respect to numbers and frequencies of adverse events and reduced opioid consumption in subjects with moderate to severe postoperative pain following major elective surgery.

Version ID
1
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MEDLINE
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Comments
Erratum in (EIN)
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2019

336.

Fenugreek dermal patch, a new natural topical antinociceptive medication for relieving the postherniotomy pain, a double-blind placebo controlled trial.
Ansari M, Sadeghi P, Mahdavi H, Fattahi-Dolatabadi M, Mohamadi N, Asadi A, Sharififar F
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Journal of Complementary & Integrative Medicine. 16(3), 2019 Feb 05.
[Journal Article. Randomized Controlled Trial]
UI: 30721143
Background Fenugreek seeds have shown antinociceptive effect in animal studies. This double-blind placebo controlled trial was designed to study the effect of fenugreek transdermal patch 10% (FDP) for management of inguinal hernia (IH) post-operative pain. Methods Standardized extract of fenugreek seeds was used for FDP formulation. Ninety patients treated with 10% FDP, diclofenac dermal patch 1% (DP) and placebo twice daily after IH surgery. The pain intensity score was evaluated using a visual analogue score (VAS) up to 48 h after operation. Morphine consumption and diclofenac suppository demand were evaluated too. Results The pain score was significantly reduced in FDP group in comparison with the placebo group. This effect was also significantly different from DP up to 6 h after surgery ($p<0.05$). Morphine consumption and diclofenc suppository demand were significantly decreased in FDP group ($p<0.05$). Conclusion In all, results of the present study indicated that FDP decreases pain score and demand for morphine in post-surgery patients in comparison to diclofenac patch, and this preparation could be a suit option as a natural antinociceptive agent for pain management.
Version ID
1

Status
MEDLINE
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Year of Publication
2019

337.

Wide Variation in Opioid Prescribing After Urological Surgery in Tertiary Care Centers.
Ziegelmann MJ, Joseph JP, Glasgow AE, Tyson MD, Pak RW, Gazelka HM, Schatz AL, Leibovich BC, Habermann EB, Gettman MT
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Mayo Clinic Proceedings. 94(2):262-274, 2019 02.
[Journal Article. Multicenter Study]
UI: 30711124
OBJECTIVE: To describe postoperative opioid prescribing practices in a large cohort of patients undergoing urological surgery.
PATIENTS AND METHODS: We identified 11,829 patients who underwent 21 urological surgical procedures at 3 associated facilities from January 1, 2015, through December 31, 2016. After converting opioids to oral morphine equivalents (OMEs), prescribing patterns were compared within and across procedures. Subgroup analysis for opioid-naive patients (those without a history of long-term opioid use) was performed. Statistical analysis was utilized to evaluate variations based on demographic and perioperative/postoperative variables.
RESULTS: Of the 11,829 patients, 9229 (78.0%) were prescribed an opioid at discharge, and the median (interquartile range [IQR]) OME prescribed was 188 (150-225). The remaining 9253 patients (78.2%) were considered opioid naive. Striking variation in prescribing patterns was observed within and across surgical procedures. For instance, IQR ranges of 150 or greater were observed for open cystectomy (median, 300; IQR, 210-375], open radical nephrectomy (median, 300; IQR, 225-375), retroperitoneal node dissection (median, 300; IQR, 225-375), hand-assisted laparoscopic nephrectomy (median, 225; IQR, 150-300), and penile prosthesis (median, 225; IQR, 150-315). On multivariate analysis, younger age, cancer diagnosis, and inpatient hospitalization were associated with higher likelihood of receiving a highest-quartile OME prescription for opioid naive patients. Thirty-day refill rates varied from 1.6% to 25.9%. Interestingly, refill rates were higher in patients receiving more opioids at discharge.

CONCLUSION: The United States is facing an opioid epidemic, and physicians must take action. In this study, we found considerable variation in opioid prescribing patterns within and across surgical procedures. These data provide support for the development of standardized opioid prescribing guidelines for postoperative analgesia.

Version ID
1
Status
MEDLINE
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Comments
Comment in (CIN) Comment in (CIN)
Year of Publication
2019

338.

Standardization of Outpatient Procedure (STOP) Narcotics: A Prospective Non-Inferiority Study to Reduce Opioid Use in Outpatient General Surgical Procedures.
Hartford LB, Van Koughnett JAM, Murphy PB, Vogt KN, Hilsden RJ, Clarke CF, Allen LJ, Gray SD, Parry NG, Gray DK, Leslie KA
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Journal of the American College of Surgeons. 228(1):81-88.e1, 2019 01.
[Journal Article. Multicenter Study]
UI: 30359828
BACKGROUND: There has been a dramatic rise in opioid abuse, and diversion of excess, unused prescriptions is a major contributor. We assess the impact of implementing a new standardized pain care bundle to reduce postoperative opioids in outpatient general surgical procedures.
STUDY DESIGN: This study was designed to demonstrate non-inferiority for the primary end point: patient-reported average pain in the first 7 postoperative days. We prospectively evaluated 224 patients who underwent laparoscopic cholecystectomy or open hernia repair (inguinal,

umbilical) pre-intervention to 192 patients post-intervention. We implemented a multimodal intra- and postoperative analgesic bundle, including promoting co-analgesia, opioid-reduced prescriptions, and patient education designed to clarify patient expectations. Patients completed a brief pain inventory at their first postoperative visit. Groups were compared using chi-square test, Mann-Whitney U test, and independent samples t-test, where appropriate.
RESULTS: No difference was seen in average postoperative pain scores in the pre- vs post-intervention groups (2.3 vs 2.1 of 10; p = 0.12). The reported quality of pain control improved post-intervention (good/very good pain control in 69% vs 85%; p < 0.001). The median total morphine equivalents for prescriptions filled in the post-intervention group were significantly less (100; interquartile range 75 to 116 pre-intervention vs 50; interquartile range 50 to 50 post-intervention; p < 0.001). Only 78 of 172 (45%) patients filled their opioid prescription in the post-intervention group (p < 0.001), with no significant difference in prescription renewals (3.5% pre-intervention vs 2.6% post-intervention; p = 0.62).
CONCLUSIONS: For outpatient open hernia repair and cholecystectomy, a standardized pain care bundle decreased opioid prescribing significantly and frequently eliminated opioid use, and adequately treating postoperative pain and improving patient satisfaction.

Version ID
1
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MEDLINE
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Hartford, Luke B, Van Koughnett, Julie Ann M, Murphy, Patrick B, Vogt, Kelly N, Hilsden, Richard J, Clarke, Collin Fm, Allen, Laura J, Gray, Samuel D, Parry, Neil G, Gray, Daryl K, Leslie, Ken A
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Comments

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2019

339.

Anesthesia and Pain Management for Cytoreductive Surgery and Hyperthermic Intraperitoneal Chemotherapy for Desmoplastic Small Round Cell Tumors in Children, Adolescents, and Young Adults.
Anghelescu DL, Brown CL, Murphy AJ, Davidoff AM, Dickson PV, Glazer ES, Stiles ZE, Bishop MW, Douthitt L, Deneve JL
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Annals of Surgical Oncology. 26(1):131-138, 2019 Jan.
[Journal Article]
UI: 30353396
BACKGROUND: Desmoplastic small round cell tumor (DSRCT) is a rare, aggressive sarcoma. Cytoreductive surgery (CRS) and hyperthermic intraperitoneal chemotherapy (HIPEC) may improve survival.
METHODS: A retrospective review of anesthetic management and postoperative pain control strategies after CRS/HIPEC for DSRCT from 2013 to 2017 was performed.
RESULTS: The review analyzed 10 CRS/HIPEC procedures performed for nine DSRCT patients with a median age of 19 years (range 10-24 years). Six of these patients were Caucasian, and seven were men. The median operative duration was 551 min (range 510-725 min), and the median anesthesia duration was 621 min (range 480-820 min). Postoperative mechanical ventilation was necessary in 5 patients for a median duration of 1 day (range 0-2 days). The median intraoperative intravenous fluid administration was 13 ml/kg/h (range 6.3-24.4 ml/kg/h), and the colloid administration was 12 ml/kg (range 0.0-53.0 ml/kg). The median blood loss was 15 ml/kg (range 6.3-77.2 ml/kg). Nine patients received intraoperative transfusion with a median red blood cell transfusion volume of 14 ml/kg (range 10.1-58.5 ml/kg). The median intraoperative urine output was 2 ml/kg/h (range 0.09-8.40 ml/kg/h), and half of the patients received intraoperative diuretics. Cisplatin was used during HIPEC for eight surgeries. Acute kidney injury was observed in two patients, one of whom required short-term dialysis. Epidural infusions were used in eight cases for a median of 4 days (range 3-5 days). Postoperative intravenous opioid use (morphine equivalent) was 0.67 mg/kg/day (range 0.1-9.2 mg/kg/day) administered for a median of 11 days (range 2-35 days).
CONCLUSION: Cytoreduction and HIPEC for DSRCT are associated with significant perioperative fluid requirements and potentially challenging pain management. Renal protective strategies should be considered for reduction of cisplatin-associated nephrotoxicity. Further investigation for a more effective, less systemically toxic HIPEC agent is warranted.
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1
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MEDLINE
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PMID
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6428047
Year of Publication
2019

340.

Pre-operative screening for asymptomatic bacteriuria and associations with post-operative outcomes in patients with spinal cord injury.
Fitzpatrick MA, Suda KJ, Burns SP, Poggensee L, Ramanathan S, Evans CT
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Journal of Spinal Cord Medicine. 42(2):255-259, 2019 03.
[Journal Article. Research Support, U.S. Gov't, Non-P.H.S.]
UI: 29578382
CONTEXT: Screening for asymptomatic bacteriuria (ASB) before non-urologic surgery is common but of unclear benefit. Our aim was to describe pre-operative ASB screening and post-operative outcomes in patients with neurogenic bladder due to spinal cord injury (SCI).
METHODS: This was a descriptive retrospective cohort study of adults with SCI undergoing neurosurgical spine or orthopedic lower limb surgery from 10/1/2012-9/30/2014 at Veterans Affairs (VA) medical centers. National VA datasets and medical record review was used to describe frequency of pre-operative ASB screening, presence of ASB, and association with post-operative surgical site infection, urinary tract infection, and hospital readmission.
RESULTS: 175 patients were included. Although over half of patients had pre-operative ASB screening, only 30.8% actually had pre-operative ASB. 15.2% of patients screened were treated for ASB with antibiotics before surgery. Post-operative urinary tract infection (UTI) or surgical site infection (SSI) occurred in 10 (5.7%) patients, and 20 patients (11.4%) were readmitted within 30 days. Neither ASB screening nor the presence of pre-operative ASB were associated with these post-op outcomes ($p > 0.2$ for all).
CONCLUSION: Pre-operative ASB screening is common in patients with SCI undergoing elective spine and lower limb surgery, although ASB occurs in less than 1/3rd of cases. There were no associations between pre-operative ASB and outcomes. Further studies evaluating the clinical benefit of this practice in patients with SCI should be performed.
Version ID
1

Status
MEDLINE
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PMID
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6421984
Year of Publication
2019

341.

Application of an Infant Spinal Anesthesia Protocol in Infants Presenting for Inguinal Herniorrhaphy Improves Operating Room and Post Anesthesia Recovery Unit Utilization.
Liu C.A., Davis N., Kelleher C.M.
Embase
Paediatric anaesthesia. (no pagination), 2019. Date of Publication: 24 Jun 2019.
[Article]
AN: 628499936
Spinal anesthesia is a safe and beneficial alternative to general anesthesia in infants (1, 2). We would like to share a prospective observational study of infants undergoing inguinal herniorrhaphy under spinal anesthesia at the Massachusetts General Hospital for Children (MGHfC), an institution where spinal anesthesia was not previously commonly utilized in infants. We instituted an infant spinal anesthesia protocol (iSAP) and aimed to evaluate the effects of utilization of this protocol on operating room (OR) efficiency in infants undergoing inguinal herniorrhaphy at MGHfC. This article is protected by copyright. All rights reserved.
PMID
31233676 [https://www.ncbi.nlm.nih.gov/pubmed/?term=31233676]
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Publisher
NLM (Medline)
Year of Publication
2019

342.

Comparison between rectus sheath block with 0.25% ropivacaine and local anesthetic infiltration with 0.5% ropivacaine for laparoscopic inguinal hernia repair in children.
Tamura T., Kaneko K., Yokota S., Kitao T., Ando M., Kubo Y., Nishiwaki K.
Embase
Nagoya journal of medical science. 81(3) (pp 341-349), 2019. Date of Publication: 01 Aug 2019.
[Article]
AN: 629513203
This randomized, observer-blinded prospective study aimed to compare the postoperative analgesic effects of ultrasound-guided rectus sheath block with those of local anesthetic infiltration of the surgical field in children undergoing inguinal hernia repair. Children aged 2 to 14 years, scheduled for elective single-incision laparoscopic percutaneous extraperitoneal closure, were randomly allocated to receive ultrasound-guided rectus sheath block (group R) or local anesthetic infiltration of the surgical field (group L). In group R, 0.5 ml/kg of 0.25% ropivacaine (per side) was administered after intubation. In group L, 0.4 ml/kg of 0.5% ropivacaine was administered after peritoneal closure. Postoperative pain was assessed using the Face Scale and Face, Legs, Activity, Cry, Consolability scale at various time points, including the primary endpoint of 2 h after leaving the operation room. Additional analgesic drugs were used according to the Face Scale scores. Patient characteristics, the amount of additional drugs, and complication rate were evaluated in both groups. The patient and surgical characteristics were comparable between groups. The Face Scale and Face, Legs, Activity, Cry, Consolability scale scores were not significantly different between group R (n = 38) and group L (n = 38) at 2 h after leaving the operation room. The amount of additional drugs administered at 2 h after leaving the operation room were also comparable between groups. Our findings suggest that the postoperative analgesic efficacy of ultrasound-guided rectus sheath block is not superior to that of local anesthetic infiltration of the surgical field for pediatric single-incision laparoscopic percutaneous extraperitoneal closure.
PMID
31579326 [https://www.ncbi.nlm.nih.gov/pubmed/?term=31579326]
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Publisher
NLM (Medline)
Year of Publication
2019

343.

Double J stenting evaluation after ureteroscopy for urolithiasis.
Segalen T., Lebdai S., Panayotopoulos P., Culty T., Brassart E., Riou J., Azzouzi A.R., Bigot P.
Embase
Progres en urologie : journal de l'Association francaise d'urologie et de la Societe francaise d'urologie. 29(12) (pp 589-595), 2019. Date of Publication: 01 Oct 2019.
[Article]
AN: 629282342
OBJECTIVES: During ureteroscopy for urolithiasis, postoperative ureteral drainage with double J stent is frequently used. It may reduce acute postoperative pain and late ureteral stenosis. Double J stent can have negative impact on life quality. After uncomplicated intervention, double J stent is not mandatory. Objective of our study was to evaluate pain and complications after ureteroscopy with or without stent.
METHOD(S): We retrospectively analyzed ureteroscopy performed between May 2014 and January 2017. Interventions were compared regarding ureteral drainage with double J stent or not. Our primary outcome was early postoperative pain evaluated with an oral pain scale form 1 to 10 on day one after intervention. Clinical characteristics, per- and postoperative data were collected. We also looked for risks factors of complications.
RESULT(S): Three hundred and sixty-six interventions were included, 259 (70.8%) with and 107 (29.2%) without double J stent. Stone burden was higher in stented group (18.3 vs 9.4mm, P<0.0001). Patients without postoperative stents had more ureteral preparation with double J stent (78.5% vs 62.5%, P=0.0032) and had more ambulatory interventions (75.7% vs 52.5%, P<0.0001). Postoperative pain was not different (22% vs 17.75%, P=0.398). Complication rate was similar (29% vs 20.5%, P=0.1181), so was rehospitalization rate (0.8% vs 0.9%, P=1). In multivariate analysis, complications factors were unprepared ureter, experienced surgeons and access sheath.
CONCLUSION(S): Not stenting after ureteroscopy do not increase pain or complications. Stenting should not be used after uncomplicated interventions for centimetric stones.4.

PMID
31506249 [https://www.ncbi.nlm.nih.gov/pubmed/?term=31506249]
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Publisher
NLM (Medline)
Year of Publication
2019

344.

Systemic lidocaine infusion for post-operative analgesia in children undergoing laparoscopic inguinal hernia repair: A randomized double-blind controlled trial.
Lee H.-M., Choi K.-W., Byon H.-J., Lee J.-M., Lee J.-R.
Embase
Journal of Clinical Medicine. 8(11) (no pagination), 2019. Article Number: 2014. Date of Publication: November 2019.
[Article]
AN: 2003250474

Systemic lidocaine can provide satisfactory post-operative analgesia in adults. In this study, we assessed whether intravenous lidocaine is effective for post-operative analgesia and recovery in children undergoing laparoscopic inguinal hernia repair. A total of 66 children aged from six months to less than six years were classified in either the lidocaine (L) or control (C) groups. Children in Group L received a lidocaine infusion (a bolus dose of 1 mL kg-1, followed by a 1.5 mg kg-1 h-1 infusion), whereas Group C received the same volume of 0.9% saline. The primary outcome was the number of patients who presented face, legs, activity, crying and consolability (FLACC) scores of four or more, and therefore received rescue analgesia in the post-anesthesia recovery care unit (PACU). Secondary outcomes included the highest FLACC score in the PACU, FLACC, and the parents' postoperative pain measure (PPPM) score at 48 h post-operation, as well as side effects. The number of children who received rescue analgesia in the PACU was 15 (50%) in Group L and 22 (73%) in Group C (p = 0.063). However, the highest FLACC score in PACU was lower in Group L (3.8 +/- 2.4) than in Group C (5.3 +/- 2.7) (p = 0.029). In conclusion, systemic lidocaine did not reduce the number of children who received rescue analgesia in PACU.

Status
Embase
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Publisher
MDPI
Clinical Trial Number
https://clinicaltrials.gov/show/NCT02007330
Year of Publication
2019

345.

Effect of sevoflurane and propofol on acute kidney injury in pediatric living donor liver transplantation.
Li H., Weng Y., Yuan S., Liu W., Yu H., Yu W.
Embase
Annals of Translational Medicine. 7(14) (no pagination), 2019. Article Number: 340. Date of Publication: 01 Jul 2019.
[Article]
AN: 628878858
Background: Acute kidney injury (AKI) is the primary cause of morbidity and mortality after major abdominal surgery. However, little is known about the effect of anesthetics on the development of AKI after pediatric liver transplantation (LT). This study aimed to compare the effects of propofol and sevoflurane anesthetics on postoperative AKI after LT surgery.
Method(s): A total of 120 pediatric patients scheduled for pediatric LT were randomly assigned to receive either continuous infusion of propofol or inhalation of sevoflurane. Serum creatinine (Scr), inflammatory medium and oxidative stress factors and renal biomarkers were measured before surgery (T1), 5 min after anhepatic phase (T2), 10 min after ischemia reperfusion (T3), 2 h after ischemia reperfusion (T4), 24 h after surgery (T5), and 3 d after surgery (T6) to evaluate the effects of anesthetics on the development of postoperative AKI.

Result(s): The incidence of AKI was lower in patients receiving sevoflurane than those receiving propofol. The mean arterial pressure was changed slightly in sevoflurane group. The inflammatory factors of interleukin-18, tumor necrosis factor-alpha, and the levels of neutrophil gelatinase-associated lipocalin (NGAL) were lower in sevoflurane group, while no oxidative stress factors [hydrogen peroxide (H2O2), malondialdehyde and superoxide dismutase)] and interleukin-10 showed differences between the groups.
Conclusion(s): Anesthesia with sevoflurane may be associated with a modest decrease in the incidence of AKI when compared with propofol. Further clarification with relevance to such association is warranted.

Status
Embase
Institution
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Publisher
AME Publishing Company
Year of Publication
2019

346.

Vaginoscopic Incision of Oblique Vaginal Septum in Adolescents with OHVIRA Syndrome.
Cheng C., Subedi J., Zhang A., Johnson G., Zhao X., Xu D., Guan X.
Embase
Scientific reports. 9(1) (pp 20042), 2019. Date of Publication: 27 Dec 2019.
[Article]
AN: 630465524
This study is to evaluate the efficacy and safety of vaginoscopic incision of oblique vaginal septum in adolescents with Obstructed hemi-vagina and ipsilateral renal agenesis (OHVIRA) syndrome. It is about Fourteen adolescents with OHVIRA syndrome managed by vaginoscopic incision of the oblique vaginal septum using a "No-touch" technique over an 8-year period. In all fourteen adolescents with OHVIRA the oblique vaginal septum was incised successfully without any intraoperative complications. Postoperative pain was unremarkable and each patient's symptoms resolved postoperatively. The 3-month postoperative follow up office vaginoscopy revealed that the vaginal septum had not reformed nor was any vaginal stenosis noted. Vaginoscopic incision of the oblique vaginal septum using a "No-Touch" technique is a safe, minimally invasive, and effective approach for treating OHVIRA syndrome in adolescents with hematocolpos. This technique may be utilized to minimize disruption to the undeveloped vaginal wall and postoperative pain while providing excellent surgical visualization throughout the procedure.
PMID
31882725 [https://www.ncbi.nlm.nih.gov/pubmed/?term=31882725]
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Publisher
NLM (Medline)
Year of Publication
2019

347.

Clinical effects of prosthetic mesh in the treatment of incarcerated groin hernias.
Zhao F., Liu M., Chen J., Jin C., Chen F., Cao J., Liu Y.
Embase
Minerva chirurgica. 74(6) (pp 458-464), 2019. Date of Publication: 01 Dec 2019.
[Article]
AN: 630665763
BACKGROUND: Incarcerated groin hernias are a common presentation as surgical emergencies. Other surgical treatment modalities are becoming more widely accepted including the use of prosthetic mesh and laparoscopy for assessment of hernia content viability and for repair. The aim of this study was to report our current experience with the use of prosthetic mesh in the treatment of incarcerated hernias and to compare the effects of different operative approaches.
METHOD(S): This retrospective study included 219 consecutive patients who underwent herniorrhaphy for incarcerated hernia between January 2013 and December 2017 in Beijing Chao-Yang Hospital. Twenty patients who were not used mesh were excluded. Patients who died in the postoperative period due to systemic complications, as well as those who were lost during the follow-up period, were excluded from the study. Demographics, surgical details, short term and long-term outcomes were collected. Mann-Whitney U-test and chi2 test were used for statistical analysis.
RESULT(S): A total of 156 patients (78.4%) presented with inguinal hernias, 42 with femoral hernia (21.1%), and one with mixed hernia (0.5%), respectively. Mesh was placed in 199 patients (100%), including 15 patients with concomitant bowel resection. Four patients (2.0%) developed surgical site infections (SSI), four patients (2.0%) had foreign body sensation, one patient (0.5%) had hernia recurrence, two patients (1.0%) had chronic pain, 22 patients (11.1%) had seroma, and the mortality was 2.0%. No significant difference was noted concerning the development of surgical site infection, postoperative recurrence, chronic pain, foreign body sensation, and mortality rates between the transabdominal preperitoneal (TAPP) repair and open mesh repair. There was statistically significant difference in the postoperative incidence of seroma between two groups (12 of 49 [24.5%] vs. 10 of 150 [6.7%]; P=0.001).
CONCLUSION(S): Our experience demonstrates that acutely incarcerated or strangulated groin hernia in adults is a serious neglected problem. The use of mesh could become current practice even in case of bowel resection. There was no statistically significant difference in the postoperative complications between TAPP repair and open mesh repairs except seroma.
PMID
30334396 [https://www.ncbi.nlm.nih.gov/pubmed/?term=30334396]
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Publisher
NLM (Medline)
Year of Publication
2019

348.

10-Year Experience with 1700 Single-Incision Laparoscopies.
Dapri G.
Embase
Surgical technology international. 35 (pp 71-83), 2019. Date of Publication: 10 Nov 2019.
[Article]
AN: 629821209
BACKGROUND: Single-incision laparoscopy (SIL) was initially reported in the mid-1900's, but remained unpopular until the arrival of Natural Orifice Transluminal Endoscopic Surgery. It was described not only for surgery involving the digestive system, but also for breast, thoracic, urologic, gynecologic and pediatric surgery. Various studies have proven its feasibility, safety and effectiveness. This report describes the 10-year experience with SIL of a single surgeon at a single institution.
PATIENTS AND METHODS: From May 2009 to May 2019, 1700 abdominal SILs were performed, including: cholecystectomy (475), inguinal hernia repair (319), incisional/ventral hernia repair (293), appendectomy (226), colorectal surgery (158), fundoplication/diaphragmatic hernia repair (72), gastric surgery (54), diagnostic laparoscopy (42), liver surgery (18), small bowel resection (15), splenectomy (12), adrenalectomy (6), gynecologic surgery (6), pancreatic surgery (2), and urologic surgery (2). Three types of incision/access-site were adopted. Inclusion and exclusion criteria were considered. The following outcomes were evaluated: laparoscopic operative time, operative bleeding, supplementary scars or trocars for improved exposure of the operative field and/or control of perioperative complications, final incision length, hospital stay, postoperative pain during hospitalization and after discharge, early and late access-site complications and other early and late general complications.
RESULT(S): While there were no conversions to open surgery or conventional laparoscopy, a supplementary millimetric instrument or a 5-mm trocar was needed in 27.8% and 0.5% of cases, respectively. No operative or postoperative mortalities were registered. The mean final incision length was between 13.1 and 21.0 mm at the umbilicus, between 43.3 and 57.2 mm suprapubically, and between 21.4 and 36.3 mm in another abdominal quadrant. Postoperative pain decreased from the first hours until the end of hospitalization. The percentage of patients who required an analgesic drug for more than 5 days after discharge ranged between 0 and 16.6%. The early access-site complication rate was 7.5%, and the access-site incisional hernia rate was 1.3%. The other early general complication rate was 10.7%, and reoperation was required in 1.4%. The other late general complication rate was 0.7%, and reoperation was required in 0.5%.
CONCLUSION(S): SIL is a laparoscopic technique that can safely be offered to patients presenting abdominal diseases. The main advantages include enhanced cosmetic results and reduced abdominal trauma. The main disadvantages are patient selection, a longer operative time for some procedures, and a need to expose the operative field for some other procedures.
PMID
31710087 [https://www.ncbi.nlm.nih.gov/pubmed/?term=31710087]
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Publisher
NLM (Medline)
Year of Publication
2019

349.

Intravenous dexamethasone along with caudal block improves analgesic efficacy following day-case inguinal hernia repair in children: A randomized controlled trial.
Nadeem A., Ahmed A.
Embase
JPMA. The Journal of the Pakistan Medical Association. 69(12) (pp 1785-1789), 2019. Date of Publication: 01 Dec 2019.
[Article]
AN: 630341208
OBJECTIVE: To assess the effectiveness of intravenous dexamethasone along with caudal block in improving analgesia following inguinal hernia repair in children.
METHOD(S): The double-blind randomised controlled trial was conducted over a 6-month period from June 01, 2016 to November 30, 2016 at the Aga Khan University Hospital, Karachi, and comprised patients aged 1-5 years, scheduled for elective inguinal hernia repair. The subjects were randomised into two groups using the sealed envelope technique. Group D patients received 0.5mg/kg dexamethasone intravenous in 5ml, and group P was given placebo (5ml 0.9% saline). Assessment of postoperative pain was made through the faces, legs, activity, cry and consolability tool at 30 minutes and hourly for 4 hours. Rescue analgesia was given at pain score 3 or more with intravenous pethidine 0.5 mg/kg. SPSS 19 was used for data analysis.
RESULT(S): Of the 64 patients, there were 55(85.9%) boys and 9(14.1%) girls. The overall mean age was 29.8}13.8 months. The mean postoperative pain score was significantly higher in group P ($p<0.05$). At 30 minutes and two hours postoperatively, need for analgesia was also significantly higher in group P ($p<0.05$).
CONCLUSION(S): In paediatric day-care inguinal hernia repair, dexamethasone could be used effectively for improving pain relief.
PMID
31853103 [https://www.ncbi.nlm.nih.gov/pubmed/?term=31853103]
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Publisher
NLM (Medline)
Year of Publication
2019

350.

Comparison of Two Different Anesthesia Methods in Patients Undergoing Percutaneous Nephrolithotomy.
Solakhan M., Bulut E., Erturhan M.S.
Embase
Urology journal. 16(3) (pp 246-250), 2019. Date of Publication: 17 Jun 2019.
[Article]
AN: 628366531
PURPOSE: The study aims to compare the effectiveness, safety and costs of two different anesthesia methods in percutaneous nephrolithotomy (PCNL) operations. MATERIAL AND METHOD: In our study, data was retrospectively examined of 1657 patients who underwent PCNL due to renal calculi between 2009 and 2017. Patients were separated into two groups according to the type of anesthesia; as those who underwent PCNL by general anesthesia (GA) (n = 572) and those under spinal anesthe-sia(SA) (n = 1085). Standard PCNL technique was used in both groups. Gender, age, operation duration, period of hospitalization, stone-free ratio, post-operative narcotic analgesic need and complications were compared between these two groups.

RESULT(S): A total of 1657 patients consisting of 1064 (64.2%) male patients and 593 (35.8%) female patients were included in the study. The average age of the all patients was 33.2 +/- 12.4 (range 16-74) years. The two groups were similar in terms of mean age, gender, stone size, stone location and body mass index. Mean operation time was sig-nificantly shorter in the SA group than in the GA group (81.8 +/- 33.9 minute vs. 118.2 +/- -42.9 minute respectively, P < .001). Mean period of hospitalization was remarkable shorter in the SA group than in the GA group (30.0 +/- 9.9 hours vs. 38.4 +/- 11.2 hours respectively, P < .001). Post-operative narcotic analgesic need rate was significantly higher in the GA group than in the SA group (33.4% vs. 10.9%, respectively, P < .001). Anesthesia cost was found significantly lower in the SA group than in the GA group (USD 21.3+/-2.8 vs. USD 83.6 +/- 9.5, respectively, P < .001). Significant difference was not observed between both groups in terms of stone-free ratio, amount of bleed-ing, fluoroscopy time, pre-operative and post-operative complications.
CONCLUSION(S): Compared to those performed with GA, PCNL performed with SA is a safe, effective and low-cost method.
PMID
30206925 [https://www.ncbi.nlm.nih.gov/pubmed/?term=30206925]
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Publisher
NLM (Medline)
Year of Publication
2019

351.

Initial Experience of Retroperitoneoscopic Surgery in Benign Renal Diseases.
Kunwar A.K., Upadhyay A.M., Shrestha S.B., Koirala U., Tiwari K., Dangal G.
Embase
Journal of Nepal Health Research Council. 17(1) (pp 94-99), 2019. Date of Publication: 28 Apr 2019.
[Article]
AN: 627920955
BACKGROUND: To review our early experience to determine the feasibility, efficacy and clinical outcomes of retroperitoneoscopic surgery in benign renal diseases.
METHOD(S): This is a prospective observational study carried out between December 2014 to March 2018. Among 14 patients enrolled in the study, 9 cases of nonfunctioning kidney underwent retroperitoneoscopic simple nephrectony, 4 cases of benign renal cortical cysts underwent decortication of cysts and one case of pelviureteric junction obstruction underwent Anderson Hynes pyeloplasty.
RESULT(S): Retroperitoneoscopic nephrectomy, renal cyst decortication and A-H pyeloplasty were performed in 13 patients successfully. The procedure in one patient of RP nephrectomy converted to open surgery due to dense perinephric and hilar adhesions. Which resulted to failure to progress. The mean operative time of RP nephrectomy, decortications and pyeloplasty were 206.4 (150-248), 67.5 (60-80) and 275 minutes, average blood loss was 96.7 (50-120), 27.5 (20-30) and 70 ml, and the mean hospital stay were 3.5 (3-4), 2 (2-2) and 4 days respectively. The perioperative period was uneventful.
CONCLUSION(S): Retroperitoneoscopic surgery is feasible and safe in benign renal diseases. Because of reduced post operative pain and less chances of bowel injury, retroperitoneoscopic surgery is gaining more popularity.

PMID
31110385 [https://www.ncbi.nlm.nih.gov/pubmed/?term=31110385]
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Publisher
NLM (Medline)
Year of Publication
2019

352.

Use of topical versus injectable anaesthesia for ShangRing circumcisions in men and boys in Kenya: Results from a randomized controlled trial.
Awori Q., Li P.S., Lee R.K., Ouma D., Oundo M., Barasa M., Obura N., Mwamkita D., Simba R., Oketch J., Nyangweso N., Maina M., Kiswi N., Kirui M., Chirchir B., Goldstein M., Barone M.A.
Embase
PLoS ONE. 14(8) (no pagination), 2019. Article Number: e0218066. Date of Publication: 01 Aug 2019.
[Article]
AN: 2002596344
Background: The ShangRing is a disposable, collar clamp circumcision device pre-qualified for use in men and boys 13 years and above. It has been shown to be faster than conventional circumcision with comparable adverse event (AE) rates and high client satisfaction. Voluntary medical male circumcision (VMMC) has been shown to dramatically reduce the risk of HIV acquisition in males. However, the fear of pain during circumcision is an important barrier to uptake. Use of topical anesthesia thus presents an opportunity to address this.
Objective(s): We sought to evaluate the safety, effectiveness and acceptability of the use of topical anaesthesia with ShangRing circumcision of men and boys 10 years of age and above.
Method(s): Participants were randomised 2:1 to receive topical or injectable anaesthesia. All participants underwent no-flip ShangRing circumcision. The primary outcome measure was pain. Secondary outcomes included ease of use of topical versus injectable anaesthesia, AEs and participant satisfaction.
Result(s): Compared to the topical group, participants in the injectable group reported significantly more pain on administration of the anesthesia and at approximately 20 minutes after the procedure. In the topical group, sufficient anaesthesia with topical cream was not achieved in 21 (9.3%) cases before the start of the procedure; in another 6 (2.6%), supplementary injectable anaesthesia was required as the circumcision was being carried out. The AE rate was significantly lower ($p<0.01$) in the topical (0%) vs. the injectable group (4.2%). The most common AE was pain during the post-operative period. All AEs were managed conservatively and resolved without sequeale. 96.7% of participants were satisfied with the appearance of the healed penis and 100% would recommend the ShangRing to others. All seven male circumcision providers involved in the study preferred topical to injectable anaesthesia.
Conclusion(s): Our results demonstrate the safety, improved clinical experience, effectiveness, and acceptability of the use of topical anaesthesia in ShangRing circumcision using the no-flip technique. Topical anaesthesia effectively eliminates needlestick pain from the clients' VMMC experience and thus has the potential to increase demand for the service.

PMID

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Embase
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Clinical Trial Number
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353.

Laparoscopic herniotomy in female children: Our experience in 110 patients.
Gontumukkala C., Venkata R.N.G., Golimi R.K., Javvadi V.S.
Embase
World Journal of Laparoscopic Surgery. 12(2) (pp 68-72), 2019. Date of Publication: May-August 2019.
[Article]
AN: 2003818761
Aim of the study: To assess the results and complications of laparoscopic herniotomy in female children using percutaneous internal ring suturing (PIRS).
Material(s) and Method(s): One hundred and ten consecutive female children who were admitted with a unilateral or bilateral inguinal hernia from January 2015 to June 2018 to a medical college referral hospital were included in the study. The technique used was PIRS, using spinal needle 23 gaze and 3.0 prolene. All patients were followed up postoperatively. Babies with recurrent hernias and complicated inguinal hernia were excluded from this study.
Result(s): A total of 110 female children with unilateral or bilateral inguinal hernia were included in the study. Age ranged from 1 month to 15 years with a mean age of 3 years. The clinically unilateral hernia was present in 80 children but the patent internal ring was present on the contralateral side in 25 children and was repaired simultaneously. The bilateral inguinal hernia was present in 30 children. The total number of hernia units was 165. The mean operative time was 15 minutes, ranging from 12 minutes to 20 minutes for unilateral hernia and 15-30 minutes for a bilateral hernia. The mean postoperative stay was 1 day. The follow-up period ranged from 7 days to 2 years. Two babies had hematoma at the internal ring during the procedure, subsided with no postoperative sequel. One child developed hernia on contralateral side, who was operated for contralateral patent ring during repair of an ipsilateral clinical hernia. None other children who were operated for clinical hernia had a recurrence.
Conclusion(s): Laparoscopic herniotomy using the technique of PIRS is safe, quick with minimal postoperative pain, and short hospital stay, and had a very low incidence of recurrence.

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Publisher
Jaypee Brothers Medical Publishers (P) Ltd (4838/24 Ansari Road, Daryaganj, New Delhi 110 002, India)
Year of Publication
2019

354.

Local anesthetic infiltration during pediatric percutaneous nephrolithotomy improves postoperative analgesia.
Ceyhan E., Ileri F., Bozaci A.C., Dogan H.S., Canbay O., Yilbas A.A., Tekgul S.
Embase
Journal of Urological Surgery. 6(3) (pp 238-243), 2019. Date of Publication: 2019.
[Article]
AN: 2005104844
Objective: Percutaneous nephrolithotomy is not pain-free due to the procedure itself and presence of post-operative diversion. Our purpose was to evaluate the efficacy of local anesthetic infiltration in postoperative analgesia in children who undergo percutaneous nephrolithotomy.
Material(s) and Method(s): Forty-two renal units were included to our study. Local anesthesia group received prilocaine and bupivacaine injection through the percutaneous access line where patients received no local anesthetic constituted the control group. All patients received the same anesthesia protocol and 15 mg/kg paracetamol infusion postoperatively four times a day. Post-operative pain scores of patients were evaluated by using FLACC-FPS scales. Patients with pain scores >=4 received meperidine 1 mg/kg as rescue analgesic.
Result(s): Between the two groups there was no significant difference in pain scores except 24th hour, where the local anesthesia group found to be favorable. The need (p=0.040) and total number (p=0.018) of rescue analgesic was significantly less in local anesthesia group. According to need for repetitive analgesic dose, the local anesthesia group was founded to be more advantageous (p=0.017). The postoperative analgesic satisfaction of parents' was favorable in local anesthesia group (p=0.002).
Conclusion(s): In pediatric percutaneous nephrolithotomy, preemptive local anesthetic infiltration reduces postoperative pain, the need for analgesics, the number of analgesics used and also improves patient comfort and analgesic satisfaction.

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Publisher
Galenos Publishing House (E-mail: info@balkanmedicaljournal.org)
Year of Publication
2019

355.

Effect of anesthesia for hypospadias repair on perioperative complications.
Splinter W.M., Kim J., Kim A.M., Harrison M.-A.
Embase
Paediatric Anaesthesia. 29(7) (pp 760-767), 2019. Date of Publication: 01 Jul 2019.
[Article]
AN: 2004376119
Background: Recent publications from the United States, India, and Korea report that children undergoing hypospadias repair with caudal regional anesthesia/analgesia could have increased postoperative surgical complications.
Aim(s): The purpose of this retrospective cohort study was to assess the impact between caudal regional anesthesia, other regional anesthesia, and no regional anesthesia on complications after hypospadias repair at a tertiary care children's hospital in Ottawa, Canada, with an expectation to changing practices if a link was found.
Method(s): We reviewed the health records of 827 children with hypospadias undergoing penile surgery from January 1991-June 2017. The final sample size for the analysis consisted of 764 patients and 825 procedures.
Result(s): The overall complications were almost identical when considering anesthesia effects, and this similarity persisted when we assessed specifically for only surgical complications. We had 716, 94, and 15 subjects who had a caudal block, penile block, and general anesthesia only, respectively, and their complication rates were 28, 31, and 27%, respectively, and their fistula formation rates were 10, 6, and 0%, respectively, and their stricture formation rates were 8, 7, and 20%,, respectively. Hypospadias type and surgical repair technique were marked predictors of complications in the postoperative period.
Conclusion(s): Anesthesia technique appears to have minor impact on complications after hypospadias repair, while surgical technique and type of hypospadias impact complications after hypospadias surgery in children. Based upon these results, we will not change our current practice of using a variety of regional anesthesia techniques for children undergoing hypospadias repair.

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Publisher
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356.

Ultrasound-guided quadratus lumborum block compared to caudal ropivacaine/morphine in children undergoing surgery for vesicoureteric reflex.
Sato M.
Embase
Paediatric Anaesthesia. 29(7) (pp 738-743), 2019. Date of Publication: 01 Jul 2019.
[Article]
AN: 628038155
Background: Ultrasound-guided quadratus lumborum block is a regional anesthetic technique which can provide perioperative analgesia for all age groups, including pediatric patients undergoing abdominal surgery. We hypothesized that the quadratus lumborum block would be as efficacious as a caudal block, the gold standard of pediatric lower abdominal regional anesthesia, in providing pain control after ureteral reimplantation but also have a longer duration.
Method(s): Forty-seven pediatric patients between the ages of 1 and 17 years undergoing bilateral ureteral reimplantation surgery via a low transverse incision were enrolled and randomized into the quadratus lumborum block and caudal block groups. All blocks were performed preoperatively under general anesthesia. We analyzed the following outcomes: the requirement for narcotic analgesics, pain score, episodes of emesis, and complications at 0, 4, 24, and 48 hours postoperatively.
Result(s): The study included 44 patients after excluding three who were ineligible. The fentanyl requirement for postoperative rescue analgesia during the first 24 hours was significantly lower in the quadratus lumborum block group than in the caudal block group (median [interquartile range]: 0 [0-1] vs 3 [0-5], P = 0.016, 95% confidence intervals: -4 to 0) but not at 30 minutes, 4, or 48 hours. No significant difference was observed in the pain scores or the incidence of interventions to treat nausea and vomiting during the entire period. No postoperative complication was observed.
Conclusion(s): The quadratus lumborum block was more effective in reducing the postoperative opioid requirement for rescue analgesia during the initial 24 hours than caudal ropivacaine/morphine.

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Publisher
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Clinical Trial Number
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Year of Publication
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357.

Ultrasonographic Assessment of Bladder Volumes in Children Undergoing Penile Surgery: Does the Type of Anesthesia Matter?.
Ekstein M., Bar-Yosef Y., Ben-Chaim J., Flaishon R., Weinbroum A.A.
Embase

American Journal of Therapeutics. 26(3) (pp E314-E320), 2019. Date of Publication: 01 May 2019.
[Article]
AN: 631074620
Background:There are scant data reporting postoperative ultrasonographically measured bladder volumes in children undergoing penile surgery.Study Question:We studied the effect of various anesthesia techniques on return of micturition after penile surgery in children, using ultrasonographically measured bladder volumes.
Data Sources:Ultrasonographically measured postvoiding residual bladder volumes indexed to age-appropriate capacity, and time elapsed between the end of surgery and spontaneous voiding after pediatric circumcision, distal hypospadias repair, or repair of urethrocutaneous fistula, were studied.
Study Design:Children between 4 months and 12 years were randomized to caudal block, intravenous (IV) fentanyl or penile block, in association with inhaled general anesthesia. Bladder volumes were measured before surgery and immediately after voiding for the first time. Time to first postsurgery void was also recorded.
Result(s):Thirty-one children completed all assessments; 12 underwent caudal block, 9 IV fentanyl anesthesia, and 7 were given penile block. The mean first postvoid bladder residual volumes were highest in the caudal and lowest in the penile block children (27.5 vs. 17.3 mL, P = 0.003). The time elapsing between the end of surgery and first voiding was the longest in the fentanyl group compared with caudal and penile blocks (232, 178, 150 minutes, respectively, P = 0.02).
Conclusion(s):None of the anesthetic techniques provoked postoperative urinary retention after minor penile surgery in children. The penile block appears superior to caudal block or to IV fentanyl-based anesthesia with regard to postoperative recovery of normal micturition.

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Publisher
Lippincott Williams and Wilkins (E-mail: kathiest.clai@apta.org)
Year of Publication
2019

358.

Post-operative non-steroidal anti-inflammatory drug use for pain in infant and paediatric cardiac surgery patients.
Savva D.A., Kishk O.A., Morgan J.A., Biggs J.M., Seung H., Bauer C.
Embase
Cardiology in the Young. 29(12) (pp 1440-1444), 2019. Date of Publication: 01 Dec 2019.
[Article]
AN: 630952776
Background: Pain control is an important element of care for patients after surgery, leading to better outcomes, quicker transitions to recovery, and improvement in quality of life. The purpose of this study was to evaluate the safety and efficacy of non-steroidal anti-inflammatory drugs in

children after cardiac surgeryMaterials and Methods: Patients between the ages of 1 month and 18 years of age, who received intravenous or oral non-steroidal anti-inflammataory drugs after cardiac surgery, from November 2015 until September 2017 were included in this study. The primary endpoints were non-steroidal anti-inflammataory drug-associated renal dysfunction and post-operative bleeding. Secondary endpoints examined the effect of non-steroidal anti-inflammataory drug use on total daily dose of narcotics, number of intravenous PRN narcotic doses received, and pain assessment score. Data were analysed using descriptive statistics for frequencies and ranges. Multivariate analysis was performed to measure the association of all predictors and outcomes. Wilcoxon singed-rank test was performed for secondary outcomes. Result(s): There was no association between the incidence of renal dysfunction and the use of or duration of non-steroidal anti-inflammataory drugs; in addition no association was found with increased chest tube output. There was a statistically significant reduction of patients' median Face, Legs, Activity, Cry, Consolability (FLACC) scores (2-0; p = 0.003), seen within first 24 hours after initiation of ketorolac, and a significant reduction of morphine requirements seen from day 1 to day 2 (0.3 mg/kg versus 0.1 mg/kg; p < 0.001) and number of as-needed doses. Conclusion(s): Non-steroidal anti-inflammataory drugs in paediatric cardiac surgery patients are safe and effective for post-operative pain management.

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Publisher
Cambridge University Press (E-mail: Journals_subscriptions@cup.cam.ac.uk)
Year of Publication
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359.

Is young age a risk factor for chronic postoperative inguinal pain after endoscopic totally extraperitoneal (TEP) repair?.
Bakker W.J., van Hessen C.V., Verleisdonk E.J.M.M., Clevers G.J., Davids P.H.P., Schouten N., Burgmans J.P.J.
Embase
Hernia. 23(6) (pp 1053-1059), 2019. Date of Publication: 01 Dec 2019.
[Article]
AN: 626027157
Purpose: A generally known risk factor for developing chronic postoperative inguinal pain after inguinal hernia repair is young age. However, studies discussing young age as a risk factor are mainly based on open repairs. The aim of this study was to determine if young adults (age 18-30) are also more prone to experience chronic postoperative inguinal pain after totally extraperitoneal (TEP) inguinal hernia repair, compared to older adults (age >= 31).
Method(s): A prospective study was conducted in a high-volume TEP hernia clinic in 919 patients. Patients were assessed using the Numeric (Pain) Rating Scale, Inguinal Pain Questionnaire and Carolina Comfort Scale preoperatively, at 3 months, 1 year and 2 years after TEP mesh repair.

The primary outcome was clinically relevant pain in young adults compared to older adults at 3 months follow-up. Secondary outcomes were pain 1 and 2 years postoperatively, the impact of pain on daily living, foreign body feeling and testicular pain. Furthermore, age categories were analyzed to determine potential age-dependent risk factors.
Result(s): Follow-up was completed in 867 patients. No significant difference was found between young adults and older adults for clinically relevant pain at 3 months follow-up (p = 0.723). At all follow-up time points, no significant differences were found for clinically relevant pain, any pain, mean pain scores, the Inguinal Pain Questionnaire and the Carolina Comfort Scale. The subgroup analyses showed no age-dependent risk factor.
Conclusion(s): Young age is not associated with a higher risk of chronic postoperative inguinal pain after endoscopic TEP hernia repair.

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Publisher
Springer (E-mail: springer@springer.it)
Year of Publication
2019

360.

A randomised controlled trial of excision versus invagination in the management of indirect inguinal hernial sac.
Sharma M., Pathania O.P., Kapur A., Thomas S., Kumar A.
Embase
Annals of the Royal College of Surgeons of England. 101(2) (pp 119-122), 2019. Date of Publication: 01 Feb 2019.
[Article]
AN: 626126898
INTRODUCTION: Lichtenstein tension-free mesh hernioplasty of primary inguinal hernia is currently considered as the preferred method for the plastic reconstruction of inguinal hernia by the majority of surgeons. Several studies have examined the best way to manage the hernial sac in this surgery, but no consensus has been reached. This study was designed to compare the effects of excision of sac and invagination of sac on post-operative outcomes. METHODS AND METHODS: This prospective randomised study included a total of 70 patients with primary unilateral uncomplicated indirect inguinal hernia. Group A (35 patients) underwent high dissection and invagination of the hernial sac and group B (35 patients) underwent high ligation and excision of the hernial sac. The repair of the posterior wall of the inguinal canal was done according to Lichtenstein tension-free technique. The primary outcome of this study was postoperative pain and secondary outcomes were wound infection, chronic sepsis, sinus formation, persistent pain, testicular atrophy and recurrence during the one-year follow-up period.
RESULT(S): There was a significant difference (P < 0.01) in pain experienced by the patients in the immediate post-operative period between the two groups; group A experienced less

postoperative pain than group B. There was no significant difference in incidence of infection between the groups.
CONCLUSION(S): Invagination of the sac results in less postoperative pain compared with excision, with no significant difference in other postoperative outcomes.
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Publisher
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Year of Publication
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361.

Postoperative pain and stress response: Does child's gender have an influence?. Ima li spol djeteta utjecaj na poslijeoperacijsku bol i odgovor na stres? <Ima li spol djeteta utjecaj na poslijeoperacijsku bol i odgovor na stres?.>
Karisik M., Barhanovic N.G., Vulovic T., Simic D.
Embase
Acta Clinica Croatica. 58(2) (pp 274-280), 2019. Date of Publication: 2019.
[Article]
AN: 629016293
Surgical procedure causes multisystem stress response reactions. The aim of this study was to assess whether gender has an impact on the level of neuroendocrine response to surgical stress and intensity of postoperative pain in children undergoing inguinal hernia repair surgery, as well as satisfaction of their parents with preoperative and postoperative care. The study included 60 children aged 3-6 years, all of them the only child in the family. All children included in the study were categorized as American Society of Anesthesiologists PS Class I, and divided into two groups: group 1 composed of 30 boys and group 2 composed of 30 girls. After oral premedication with midazolam, general anesthesia with endotracheal intubation was performed in all patients. Ketorolac, 1 mg.kg-1, was administered for postoperative analgesia. Serum cortisol was measured in all children preoperatively and postoperatively.The quality of postoperative analgesia was evaluated by Wong-Baker (FAC-ES) scale, along with parental satisfaction. Male children who were the only child in the family had stronger neuroendocrine response to surgical stress and stronger intensity of postoperative pain. The parents of the girls expressed greater satisfaction with preoperative and postoperative care.

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Publisher
Klinicka Bolnica Sestre Milosrdnice
Year of Publication
2019

362.

Perioperative antibiotic prescribing in surgery departments of two private sector hospitals in Madhya Pradesh, India.
Machowska A., Sparrentoft J., Dhakaita S.K., Stalsbylundborg C., Sharma M.
Embase
Perioperative Medicine. 8(1) (no pagination), 2019. Article Number: 10. Date of Publication: 10 Sep 2019.
[Article]
AN: 629275919
Background: Single-dose perioperative antibiotic prophylaxis (PAP) is recommended for clean, non-infectious surgeries to prevent surgical site infections. However, the common practice of unindicated use and prolonged use of antibiotics contributes to the development and spread of antibiotic resistance (ABR). The present study explores the perioperative use of antibiotics among inpatients with surgical indications at surgery departments of a teaching (TH) and a non-teaching (NTH) tertiary care hospital in Madhya Pradesh, India.
Method(s): Data was collected manually for all inpatients for 3 years (April 2008-August 2011). Patients with non-infectious surgical indications were selected for detailed analysis at the diagnosis group level.
Result(s): Out of 12,434 enrolled inpatients (TH 6171 and NTH 6263), the majority (> 85%) received antibiotics. None of the inpatients received the recommended single-dose PAP. The average duration of antibiotic treatment was significantly longer at the TH compared to the NTH (9.5 vs 4.4 days, $p < 0.001$). Based on the study aim, 5984 patients were classified in four diagnosis groups: upper or lower urinary tract surgery indications (UUTSI and LUTSI), and routine or emergency abdominal surgery indications (RASI and EASI). In both hospitals, quinolones were the most prescribed antibiotics for UUTSI (TH 70%, NTH 37%) and LUTSI (TH 70%, NTH 61%) antibiotic. In the TH, aminoglycosides (TH 32%) were commonly prescribed for RASI and imidazole derivatives (75%) for EASI. In the NTH, cephalosporins (39%) and imidazole derivatives (56%) were the most prescribed in RASI and EASI, respectively. Conclusions and recommendations: High prescribing of antibiotics in all four selected diagnoses groups was observed at both hospitals. In spite of the recommended single-dose PAP, antibiotics were mainly prescribed for longer durations. The unrecommended use of antibiotics is a risk factor for the development of AMR. Improving the quality of antibiotic prescribing by a stewardship program focusing on the development and implementation of local prescribing guidelines is needed.

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Year of Publication
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363.

Surgical Outcomes of Single-Level Bilateral Selective Dorsal Rhizotomy for Spastic Diplegia in 150 Consecutive Patients.
Jeffery S.M.T., Markia B., Pople I.K., Aquilina K., Smith J., Mohamed A.Z., Burchell A., Jenkins L., Walsh P., Clark N., Sacree J., Cramp M., Babiker M.O.E., Atherton W.G., Clarke A., Edwards R.J.
Embase
World Neurosurgery. 125 (pp e60-e66), 2019. Date of Publication: May 2019.
[Article]
AN: 2001603082
Objectives: Selective dorsal rhizotomy (SDR) is used to improve spasticity, gait, and pain in children with spastic diplegia. There is growing evidence supporting its long-term benefits in terms of functional outcomes, independence, and quality of life. There is, however, little contemporary work describing the surgical morbidity of this irreversible procedure. The purpose of this study is to evaluate the surgical outcomes and complications of SDR at a single United Kingdom center.
Method(s): Demographics, surgical, postoperative, and follow-up data for all patients undergoing SDR between 2011 and 2016 were collected from medical records.
Result(s): Preoperative Gross Motor Function Classification System levels in 150 consecutive patients were II (35%), III (65%), and IV (1%). Median age was 6 years and 58% were male patients. There were no deaths, cerebrospinal fluid leaks, returns to theater, or readmissions within 30 days. There were no new motor or sphincter deficits. Postoperative neuropathic pain was reported by 5.3% and sensory symptoms by 8.7%. Other complications included: postoperative nausea and vomiting (19.3%), superficial wound infection (3.3%), urinary retention (1.3%), headache (6.7%), and urine or chest infection (4.7%). Follow-up data were available for all patients (93% to 12 months, 72% to 24 months). Persistent neuropathic symptoms were reported in 6.5% at 24 months.
Conclusion(s): SDR using a single-level approach is a safe procedure with low surgical morbidity. This study complements the growing evidence base in support of SDR for spastic diplegia and should help inform decisions when considering treatment options.

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Year of Publication
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364.

Postoperative pain in small-for-gestational age infants after hernia repair, orchidopexy and urethral reconstruction surgery: A pilot study.
Schussler S.C., Kussmann F., Fahlbusch F.B., Munster T., Hirsch K., Carbon R., Albrecht S., Dotsch J., Rascher W.
Embase
Early Human Development. 136 (pp 39-44), 2019. Date of Publication: September 2019.
[Article]
AN: 2002256970
Background: Small-for-gestational-age (SGA) birth bears an enhanced risk of developing hypertension, obesity, insulin resistance and mental health disorders in later life as a consequence of adaptive processes in utero. Only a small number of studies on pain perception in SGA infants exist. These are indicative of a blunted stress response to pain in SGA newborns.
Aim(s): We initiated a pilot study investigating differences in postoperative pain perception between SGA and appropriate-for-gestational-age (AGA) infants.
Method(s): Pain and alertness levels of 10 formerly SGA and 14 AGA infants at the age 0.5-2 years were evaluated by the FLACC scale, Steward and Aldrete Scores following hernia repair, reconstructive surgery of hypospadia and orchidopexy. In addition, the postoperative consumption of non-steroidal anti-inflammatory drugs was compared between SGA and AGA.
Result(s): Postoperative pain and alertness levels were not significantly different in SGA and AGA children. We did not observe significant group differences regarding the consumption of non-steroidal anti-inflammatory drugs.
Conclusion(s): While previous studies were suggestive of a suppressed stress response to pain in SGA newborns, these findings did not fully translate into an altered response to pain beyond the newborn age. Further studies in a larger cohort seem necessary to verify this finding.

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365.

Comparison of DJ stented, external stented and stent-less procedures for pediatric pyeloplasty: A network meta-analysis.
Liu X., Huang C., Guo Y., Yue Y., Hong J.
Embase
International Journal of Surgery. 68 (pp 126-133), 2019. Date of Publication: August 2019.
[Review]
AN: 2002243321
Objective: To assess the efficacy and safety of double J (DJ) stented, external stented and stent-less procedures in pediatric pyeloplasty by adopting a network meta-analysis (NMA).
Material(s) and Method(s): Electronic databases including PubMed, Cochrane Library, Web of science and Embase database were retrieved. The trials that compared double J (DJ) stented, external stented or stent-less procedures in pediatric pyeloplasty were identified. A network meta-analysis was conducted with the software of STATA 14.0. Probability-based ranking results were performed to identify the best treatment, and publication bias was analyzed by funnel plots.
Result(s): 15 studies with 1731 participants were enrolled in the analysis, including 4 randomized controlled trials (RCT) and 11 retrospective studies. The NMA results revealed that no significant differences were detected in the outcomes of operative time, operative success, hospital stay, improvement of renal functions, overall complications and redo pyeloplasty. DJ stented and external stented procedures were associated with more postoperative pain than that of stent-less procedures [DJ stented: OR = 4.47, 95%CI(1.05,19.08); external stented: OR = 5.83, 95%CI(0.09,1.43)]. DJ stented procedure had a lower rate of urine leakage than those of external stented procedure [OR = 0.18, 95%CI (0.04, 0.76)] and stent-less procedure [OR = 0.07, 95%CI=(0.01, 0.34)]. No significant difference was observed in other types of complications such as urinary tract infection (UTI), stent migration, recurrent ureteropelvic junction obstruction (UPJO) and fever. The probabilities of ranking results indicated that the DJ stented procedure was the best treatment in the outcomes of hospital stay, operative success, improvement of renal functions, and the complication of urine leakage. Stent-less procedure showed its advantages in the outcomes of operative time, flank pain and UTI. External stented procedure had the lowest rate of overall complications and redo pyeloplasty.
Conclusion(s): There were no obvious differences in operative time, operative success, hospital stay, improvement of renal functions, overall complications between external stented, DJ stented and stent-less procedures for pediatric pyeloplasty. When considering the ranking results, the DJ stented procedure seemed to be more beneficial for pediatric pyeloplasty than the other methods. However, with the limitation of our study, additional high-quality studies are needed for further evaluation.

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366.

Inconsistent and excessive opioid prescribing after common pediatric surgical operations.
Horton J.D., Munawar S., Corrigan C., White D., Cina R.A.
Embase
Journal of Pediatric Surgery. 54(7) (pp 1427-1431), 2019. Date of Publication: July 2019.
[Article]
AN: 2000977669
Objectives: Opioid misuse has reached epidemic proportions in the United States. Post-operative opioids have been linked to overdose, diversion, and dependency in adults, but comparatively less is known in children. We evaluated opioid prescriptions following tonsillectomy and hernia repair at our institution.
Method(s): Retrospective chart review of all outpatient tonsillectomies and inguinal/umbilical hernia repairs at a single institution. Data on opioid and non-opioid analgesic prescription characteristics and post-operative pain control were reviewed.
Result(s): 470 procedures were reviewed (276 tonsillectomy, 194 hernia repair). In patients with an indication (> 5 years-old in tonsillectomy, > 1 year-old in hernia repair), 85.0% and 85.6% received a post-op opioid prescription, respectively. Mean days' opioid supplied was 6.19 +/- 4.39 days in tonsillectomy and 4.30 +/- 2.94 days for hernia repair. There was significant inter- and intra-provider variation in the days' supplied of post-operative opioid. 90-100% of patients reported adequate pain control at discharge callback regardless of pain control regimen (opioid alone, opioid + non-opioid analgesic, non-opioid analgesic alone).
Conclusion(s): Significant variation in post-operative prescribing practices was identified as well as overall over-prescription, which will serve as a starting point to institute evidence-based intervention to reduce post-operative opioid misuse after these common pediatric surgical procedures.
Level of Evidence: IV

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367.

Inconsistency in Opioid Prescribing Practices After Pediatric Ambulatory Hernia Surgery.
Denning N.-L., Kvasnovsky C., Golden J.M., Rich B.S., Lipskar A.M.
Embase
Journal of Surgical Research. 241 (pp 57-62), 2019. Date of Publication: September 2019.
[Article]
AN: 2001844261
Introduction: Nonmedical opioid use is a major public health problem. There is little standardization in opioid-prescribing practices for pediatric ambulatory surgery, which can result in patients being prescribed large quantities of opioids. We have evaluated the variability in postoperative pain medication given to pediatric patients following routine ambulatory pediatric surgical procedures.
Method(s): Following IRB approval, pediatric patients undergoing umbilical hernia repair, inguinal hernia repair, hydrocelectomy, and orchiopexy from 2/1/2017 to 2/1/2018 at our tertiary care children's hospital were retrospectively reviewed. Data collected include operation, surgeon, resident or fellow involvement, utilization of preoperative analgesia, opioid prescription on discharge, and patient follow-up.
Result(s): Of 329 patients identified, opioids were prescribed on discharge to 37.4% of patients (66.3% of umbilical hernia repairs, 20.6% of laparoscopic inguinal hernia repairs, and 33.3% of open inguinal hernia repairs [including hydrocelectomies and orchiopexies]). For each procedure, there was large intrasurgeon and intersurgeon variability in the number of opioid doses prescribed. Opioid prescription ranged from 0 to 33 doses for umbilical hernia repairs, 0 to 24 doses for laparoscopic inguinal repairs, and 0 to 20 doses prescribed for open inguinal repairs, hydrocelectomies, and orchiopexies. Pediatric surgical fellows were less likely to discharge a patient with an opioid prescription than surgical resident prescribers ($P < 0.01$). In addition, surgical residents were more likely to prescribe more than twelve doses of opioids than pediatric surgical fellows ($P < 0.01$). Increasing patient age was associated with an increased likelihood of opioid prescription ($P < 0.01$). There were two phone calls and two clinic visits for pain control issues with equal numbers for those with and without opioid prescriptions.
Conclusion(s): There is significant variation in opioid-prescribing practices after pediatric surgical procedures; increased awareness may help minimize this variability and reduce overprescribing. Training level has an impact on the frequency and quantity of opioids prescribed.

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368.

Antibiotics used in patients after surgery and effects of human serum paraoxonase-i (PON1) enzyme activity.
Yilmaz A., Dilek E.
Embase
Protein and Peptide Letters. 26(3) (pp 215-220), 2019. Date of Publication: 2019.
[Article]
AN: 2001754838
Background: Paraoxonase (PON; arilesterase, [EC 3.1.8.1]) is an enzyme from the group arilesterases (ARE). This enzyme is capable of hydrolyzing paraoxone which is the active metabolite of parathion, an organic phosphorus insecticide. PON activity was found to be low in individuals prone to development of atherosclerosis such as diabetes, familial hypercholesterolemia and kidney disorders. It was noted that PON enzyme activity decreases in relation to age increase in adults. PON enzyme activity is approximately half of that in newborns and premature babies. Approximately one year after birth, it reaches the adult level. It can be said that PON1 has significant role on living organisms. For this reason, many studies on interactions of PON-drugs are needed.
Objective(s): In this article, our aim is to investigate in vitro effects of four pharmaceutically active agents (fosfomycin, cefuroxime axetil, cefaclor monohydrate, and cefixime) which are often used in patients after surgery on human serum paraoxanase-I (PON1) enzyme activity.
Method(s): In this article, we purify paraoxonase-I enzyme from human serum by using ammonium sulfate precipitation (in the range of 60-80%), ion exchange and gel filtration chromatography. We use electrophoresis to check the purity of the enzyme. We investigate the paraoxonase activity of the enzyme at 412 nm the inhibition effects of the active substances. Paraoxone is used as the substrate. Activity measurements arw made at different inhibitor concentrations related to inhibitor studies and % Activity- [I] graphs are drawn for drug active substances. Lineweaver-Burk graphics are used to determine the Ki constants. Finally, to determine the types of inhibition we interpret these graphs.
Result(s): The active agents used after surgery decreased the PON1 enzyme activity. They showed different inhibition mechanism. The inhibition mechanism of fosfomycin and cefaclor monohydrate was noncompetitive, cefixime was uncompetitive and cefuroxime axetil was a competitive inhibitor. The IC50 values for fosfomycin, cefuroxime axetil, cefaclor monohydrate, and cefixime were calculated to be 31.5 mM, 1.03 mM, 4.18 mM and 0.781 mM, respectively, and the Ki constants were determined to be 27.98 +/- 12.25 mM, 2.20 +/- 0.22 mM, 4.81 +/- 2.25 mM and 1.12 +/- 0.32 mM, respectively. The IC50 and Ki values showed that cefixime active agent has the maximum inhibition.
Conclusion(s): In this study, we have detected that cefuroxime axetil inhibited competitively in vitro paraoxonase activity of this enzyme. According to this information, we thought that cefuroxime axetil linked to the active site of the enzyme. Fosfomycin and cefaclor monohydrate can be attached with amino acids out of the active site of the enzyme because they inhibit enzyme noncompetitively. Cefixime can be attached only to the enzyme-substrate complex because it inhibits enzyme uncompetitively.

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Publisher
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Year of Publication
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369.

A tailored surgical approach to the palpable undescended testis.
Neheman A., Levitt M., Steiner Z.
Embase
Journal of Pediatric Urology. 15(1) (pp 59.e1-59.e5), 2019. Date of Publication: February 2019.
[Article]
AN: 2001382779
Introduction: Orchiopexy for a palpable undescended testis can be approached through a traditional inguinal incision or trans-scrotally. Despite the possible advantages of the scrotal approach, including reduced postoperative pain and shorter recovery, it is not consistently advocated.
Objective(s): The objective of this study was to present the experience with a tailored approach to orchiopexy based on physical findings. Study design: This is an extended case series.
Material(s) and Method(s): The mobility of the testis as described at examination under anesthesia informs the choice of surgical approach. If a 'low' palpable testis (defined as testis that can be manipulated to the scrotum) was found, a scrotal approach was used. In cases of 'high' palpable testis (testis that cannot be manipulated to scrotum), the inguinal approach was used. Success was defined by location and size of the testis 3 months after surgery.
Result(s): A total of 259 orchiopexies were performed in 181 boys (78 bilateral). Scrotal approach was used in 125 (48%) and inguinal in 134 (52%) orchiopexies. Operative time was significantly shorter for the scrotal approach, 25 min vs. 40 min for inguinal orchiopexy ($P < 0.05$). The overall success rate was 98% with no statistical difference between the groups. Three children from the inguinal group and two from the scrotal group required an additional procedure for persistent undescended testis. The rates of testicular atrophy and hypotrophic testis were higher in the inguinal group than the scrotal group (5/134 vs. 0/125; $P < 0.05$ and 17/134 vs. 6/126; $P < 0.05$, respectively).
Discussion(s): The substantial cohort of patients selected for trans-scrotal orchiopexy experienced success rates and rates of atrophic and hypotrophic testis comparable with those found in the published literature. Furthermore, trans-scrotal operative times were significantly lower than those of inguinal procedures, and less patients required re-operation in the trans-scrotal group. Limitations of this study include significantly higher age at operation in trans-scrotal patients and a difficulty accurately classifying hypotrophic testes. Furthermore, the higher atrophic rate in the inguinal group vs. the scrotal group likely reflects the vulnerability of a testis that is located higher and not the superiority of the scrotal approach.
Conclusion(s): This tailored approach to a palpable undescended testis appears simple, safe, and effective, providing high success rate with marginal complications. It is considered a preference in cases of low undescended testis, whereas the standard two-incision inguinal orchiopexy may better serve those with high undescended testis. [Table presented]

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Publisher
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370.

Does de novo hydronephrosis after pediatric robot-assisted laparoscopic ureteral re-implantation behave similarly to open re-implantation?.
Kim E.J., Song S.H., Sheth K., Baccam T., Elizondo R., Baek M., Koh C.J.
Embase
Journal of Pediatric Urology. 15(6) (pp 604.e1-604.e6), 2019. Date of Publication: December 2019.
[Article]
AN: 2002831640
Background: While open ureteral re-implantation surgery is the gold standard for surgical correction of vesicoureteral reflux (VUR), robot-assisted laparoscopic ureteral re-implantation via an extravesical approach (RALUR-EV) has become a minimally invasive alternative. Previous studies have shown that transient hydronephrosis after open re-implantation can occur in up to 28% of patients. However, previous studies have also shown that de novo hydronephrosis after open re-implantation is not predictive of final differential renal function.
Objective(s): A retrospective review was performed to characterize the natural history of postoperative hydronephrosis after RALUR-EV for primary VUR in pediatric patients. Study design: A retrospective chart review of a single-surgeon series was performed for pediatric patients who underwent RALUR-EV for primary VUR. The severity of de novo hydronephrosis was assessed using the Society for Fetal Urology (SFU) grading system via renal ultrasound at the 1-month postoperative follow-up. Renal ultrasound was performed at least every six months. Radiographic success was defined as complete resolution of VUR on the voiding cystourethrogram at the 4-month mark. Patient demographics, surgery duration, length of hospital stay, pre-operative and postoperative VUR grades, and follow-up time periods were collected. Patients with other associated urinary pathology and patients lost to follow-up were excluded from the study.
Result(s): A total of 87 patients (121 kidney units) with primary VUR who underwent RALUR-EV met the inclusion criteria. SFU grade 1-3 hydronephrosis was noted in 30.3% (36/119) of kidney units at the 1-month mark, but 83.9% (26/31) cases with hydronephrosis completely resolved in a median time of 7.9 months (range: 3.4-21.0 months), and all four cases with unresolved hydronephrosis were downgraded to SFU grade 1 without the need for intervention.
Discussion(s): A radiographic success rate of 96% was demonstrated in this cohort, which is comparable with that of historical open re-implantation series. A similar rate of de novo hydronephrosis was also noted in this cohort when compared with that of previous open re-implantation series, but de novo hydronephrosis after RALUR-EV had a similar or more rapid resolution rate than that previously reported after open intravesical and extravesical re-implantation series.

Conclusion(s): De novo hydronephrosis after RALUR-EV behaves similarly to de novo hydronephrosis after open ureteral re-implantation, where de novo hydronephrosis is present in up to 30% of pediatric patients who underwent RALUR-EV. The hydronephrosis self-resolves without the need for intervention in the overwhelming majority of cases and resolves at a median time of 7.9 months after surgery.[Formula presented]

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371.

Combined spinal/caudal catheter anesthesia: extending the boundaries of regional anesthesia for complex pediatric urological surgery.
Jayanthi V.R., Spisak K., Smith A.E., Martin D.P., Ching C.B., Bhalla T., Tobias J.D., Whitaker E.
Embase
Journal of Pediatric Urology. 15(5) (pp 442-447), 2019. Date of Publication: October 2019.
[Article]
AN: 2001943206
Background: Spinal anesthesia (SA) is an established anesthetic technique for short outpatient pediatric urological cases. To avoid general anesthesia (GA) and expand regional anesthetics to longer and more complex pediatric surgeries, the authors began a program using a combined spinal/caudal catheter (SCC) technique. Study design: The authors retrospectively reviewed the charts of all patients scheduled for surgery under SCC between December 2016 and April 2018 and recorded age, gender, diagnosis, procedure, conversion to GA/airway intervention, operative time, neuraxial and intravenous medications administered, complications, and outcomes. The SCC technique typically involved an initial intrathecal injection of 0.5% isobaric bupivacaine followed by placement of a caudal epidural catheter. At the discretion of the anesthesiologist, patients received 0.5 mg per kilogram of oral midazolam approximately 30 min prior to entering the operating room. One hour after the intrathecal injection, 3% chloroprocaine was administered via the caudal catheter to prolong the duration of surgical block. Intra-operative management included either continuous infusion or bolus dosing of dexmedetomidine, as needed, for patient comfort and to optimize surgical conditions. Prior to removal of caudal catheter in the post-anesthesia care unit, a supplemental bolus dose of local anesthesia was given through the catheter to provide prolonged post-operative analgesia.

Result(s): Overall, 23 children underwent attempted SCC. SA was unsuccessful in three patients, and surgery was performed under GA. The remaining 20 children all had successful SCC placement. There were 11 girls and nine boys, with a mean age of 16.5 months (3.3-43.8). Surgeries performed under SCC included seven ureteral reimplantations, two ureterocele excisions/reimplantations, two megaureter repairs, four first-stage hypospadias repairs, one distal hypospadias repair, one second-stage hypospadias repair, two feminizing genitoplasties, and one open pyeloplasty. Average length of surgery was 109 min (range 63-172 min). Pre-operative midazolam was given in 13/20 (65%). All SCC patients were spontaneously breathing room air during the operation, and there were no airway interventions. Only one SCC patient received opioids intra-operatively. There were no intra-operative or perioperative complications.
Discussion(s): This pilot study shows that the technique of SCC allows one to do more complex urologic surgery under regional anesthesia than what would be possible under pure SA alone. The main limitations of the study include the relatively small number of patients and the small median length of the operative procedures. As a proof of concept, however, this does show that complex genital surgery bladder level procedures such as ureteral reimplantation can be performed under regional anesthesia.
Conclusion(s): SCC allows for more complex surgeries to be performed exclusively under regional anesthesia, thus obviating the need for airway intervention, minimizing or eliminating the use of opioids, and thus avoiding known and potential risks associated with GA. The latter is of particular importance given current concerns regarding hypothetical neurocognitive effects of GA on children aged below 3 years.[Formula presented]

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372.

A Societies for Pediatric Urology survey of opioid prescribing practices after ambulatory pediatric urology procedures.
Ahn J.J., Ellison J.S., Merguerian P.A.
Embase
Journal of Pediatric Urology. 15(5) (pp 451-456), 2019. Date of Publication: October 2019.
[Article]
AN: 2002045207
Introduction: Opioid dependence and abuse has been declared a national public health emergency, and overprescribing of opioids after surgery has been identified as a driving factor. To date, opioid prescribing after pediatric urology ambulatory surgery has not been well-described.

Objective(s): The study's objective was to assess pediatric urologists' practices in prescribing opioids for routine ambulatory procedures. Study design: A 23-question survey was created, including eight case vignettes describing routine procedures (orchiopexy, hydrocele repair, circumcision) across three age groups (8 months, 3 years, 13 years). Multiple choice questions asked about typical opioid type and duration for each case. Respondent attitudes and practice types were also evaluated. The survey was administered through the Societies for Pediatric Urology.
Result(s): Of the 102 respondents, 48% reported prescribing postoperative opioids for all cases described (Figure 1). Fourteen percent reported prescribing no opioids for all cases. Longer prescription duration was associated with older age (p = 0.003). Acetaminophen-hydrocodone was prescribed most commonly, while a few respondents reported prescribing acetaminophen-codeine. North Central and Southeastern respondents were more likely to prescribe opioids for all cases described (p = 0.003). The majority of respondents work in academic settings and had >10 years in practice. Only 16% believe that their patients take the majority of opioids prescribed, while only 35% provide education to their patients on proper disposal.
Discussion(s): There is significant variability in reported opioid prescribing practices after ambulatory procedures amongst pediatric urologists. Only 16% of respondents believe that patients take the majority of opioids prescribed, and only 14% reported never prescribing opioids for these procedures. There is an opportunity for guidelines and standardization of care for postoperative analgesia in this patient population. Given that overprescribing can lead to abuse and misuse, further work needs to be done to establish postoperative analgesia needs and to educate providers and families on proper prescribing and disposal.
Conclusion(s): Pediatric urologists report prescribing opioids frequently after routine ambulatory procedures in infants, children, and adolescents despite believing that patients do not take the majority of the prescribed medication.

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373.

Hernioplasty issue; with drain versus without drain: A comparative study.
Fayek F., Mansy W., El shahidy T.M., Yassin M.A.
Embase
Research Journal of Pharmaceutical, Biological and Chemical Sciences. 10(6) (pp 128-134), 2019. Date of Publication: 2019.
[Article]
AN: 629933237
Inguinal hernia is the commonest of all hernias and their repairs are the most common elective procedures performed by surgeons. There is no agreement among surgeons about the need for drains for all hernias types; some use drains accidentally and other mostly use it this study is

aiming to assess whether drainage is preferable than no drainage in repair of inguinal hernias by Mesh Hernioplasty and if there is benefit of closed suction drain. Our study included 200 patients underwent Lichtenstein tension free repair of groin hernia, they were randomly allocated into two groups each 100 patients; "the drain" group they have suction drain inserted in just over the mesh prosthesis, and "the no drain" group where no drain was used, we compared the data of operative time, hematoma and seroma formation and postoperative pain. 3 patients developed hematoma in the group without drain while no hematoma developed in the other group.Seroma developed in 14 patients without drain and in 4 patients in the other group, Mesh infection occurred in 2cases in the group without drain and in 1 case in the other group, occurrence of Seroma, hematoma and mesh infection has non-significant difference between both groups.Postoperative pain and hospital stay time showed statistically significant difference between groups ($p<0.001$). Drain use doesn't reduce the rate of complications of hernia repair surgery, it seems to increases postoperative pain and hospital stay time, so it should be restricted to complicated cases those with wide intraoperative dissection and those with high ASA score.

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374.

Intraoperative intercostal nerve cryoablation During the Nuss procedure reduces length of stay and opioid requirement: A randomized clinical trial.
Graves C.E., Moyer J., Zobel M.J., Mora R., Smith D., O'Day M., Padilla B.E.
Embase
Journal of Pediatric Surgery. 54(11) (pp 2250-2256), 2019. Date of Publication: November 2019.
[Article]
AN: 2001745066
Purpose: Minimally-invasive repair of pectus excavatum by the Nuss procedure is associated with significant postoperative pain, prolonged hospital stay, and high opiate requirement. We hypothesized that intercostal nerve cryoablation during the Nuss procedure reduces hospital length of stay (LOS) compared to thoracic epidural analgesia.
Design(s): This randomized clinical trial evaluated 20 consecutive patients undergoing the Nuss procedure for pectus excavatum between May 2016 and March 2018. Patients were randomized evenly via closed-envelope method to receive either cryoanalgesia or thoracic epidural analgesia. Patients and physicians were blinded to study arm until immediately preoperatively.
Setting(s): Single institution, UCSF-Benioff Children's Hospital.
Participant(s): 20 consecutive patients were recruited from those scheduled for the Nuss procedure. Exclusion criteria were age < 13 years, chest wall anomaly other than pectus excavatum, previous repair or other thoracic surgery, and chronic use of pain medications.
Main Outcomes and Measures: Primary outcome was postoperative LOS. Secondary outcomes included total operative time, total/daily opioid requirement, inpatient/outpatient pain score, and complications. Primary outcome data were analyzed by the Mann-Whitney U-test for nonparametric continuous variables. Other continuous variables were analyzed by two-tailed t-

test, while categorical data were compared via Chi-squared test, with alpha = 0.05 for significance.
Result(s): 20 patients were randomized to receive either cryoablation (n = 10) or thoracic epidural (n = 10). Mean operating room time was 46.5 min longer in the cryoanalgesia group (p = 0.0001). Median LOS decreased by 2 days in patients undergoing cryoablation, to 3 days from 5 days (Mann-Whitney U, p = 0.0001). Cryoablation patients required significantly less inpatient opioid analgesia with a mean decrease of 416 mg oral morphine equivalent per patient (p = 0.0001), requiring 52%-82% fewer milligrams on postoperative days 1-3 (p < 0.01 each day). There was no difference in mean pain score between the groups at any point postoperatively, up to one year, and no increased incidence of neuropathic pain in the cryoablation group. No complications were noted in the cryoablation group; among patients with epidurals, one patient experienced a symptomatic pneumothorax and another had urinary retention. Conclusions and relevance: Intercostal nerve cryoablation during the Nuss procedure decreases hospital length of stay and opiate requirement versus thoracic epidural analgesia, while offering equivalent pain control.
Type of Study: Treatment study.
Level of Evidence: Level I.

PMID
30935731 [https://www.ncbi.nlm.nih.gov/pubmed/?term=30935731]
Status
Embase
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Publisher
W.B. Saunders
Year of Publication
2019

375.

Neutrophil gelatinase-associated lipocalin as a marker of postoperative acute kidney injury following cardiac surgery in patients with preoperative kidney impairment.
Tidbury N., Browning N., Shaw M., Morgan M., Kemp I., Matata B.
Embase
Cardiovascular and Hematological Disorders - Drug Targets. 19(3) (pp 239-248), 2019. Date of Publication: 2019.
[Article]
AN: 2003247141
Introduction: Acute kidney injury (AKI) is a serious complication of cardiac surgery. The current 'gold standard' for determining AKI is change in serum creatinine and urine output, however, this change occurs relatively late after the actual injury occurs. Identification of new biomarkers that detect early AKI is required. Recently, new biomarkers, such as the NephroCheck Test and AKIRisk have also been tested and found to be good indicators of AKI. Neutrophil gelatinase-associated lipocalin (NGAL) has shown promise in paediatric patients but has displayed varied results in adult populations, particularly post cardiac surgery. The aim of this study was to assess the value of urinary NGAL as a biomarker of AKI in patients with pre-existing renal impairment (eGFR >15ml/min to eGFR<60ml/min).
Method(s): A post-hoc analysis of urinary NGAL concentrations from 125 patients with pre-existing kidney impairment, who participated in a randomised trial of haemofiltration during cardiac surgery, was undertaken. Urinary NGAL was measured using ELISA at baseline, post-operatively and 24 and 48 hours after surgery, and serum creatinine was measured pre and

postoperatively and then at 24, 48, 72 and 96 hours as routine patient care. NGAL concentrations were compared in patients with and without AKI determined by changes in serum creatinine concentrations. A Kaplan-Meier plot compared survival for patients with or without AKI and a Cox proportional hazards analysis was performed to identify factors with the greatest influence on survival.
Result(s): Following surgery, 43% of patients developed AKI (based on KDIGO definition). Baseline urinary NGAL was not found to be significantly different between patients that did and did not develop AKI. Urinary NGAL concentration was increased in all patients following surgery, regardless of whether they developed AKI and was also significant between groups at 24 ($p=0.003$) and 48 hours ($p<0.0001$). Urinary NGAL concentrations at 48 hours correlated with serum creatinine concentrations at 48 hours ($r=0.477$, $p<0.0001$), 72 hours ($r=0.488$, $p<0.0001$) and 96 hours ($r=0.463$, $p<0.0001$). Urinary NGAL at 48 hours after surgery strongly predicted AKI (AUC=0.76; P=0.0001). A Kaplan-Meier plot showed that patients with postoperative AKI had a significantly lower 7-year survival compared with those without AKI. Postoperative urinary NGAL at 48 hours >156ng/mL also strongly predicted 7-year survival. However, additive EuroSCORE, age, current smoking and post-operative antibiotics usage were distinctly significantly more predictive of 7-year survival as compared with postoperative urinary NGAL at 48 hours >156ng/mL.
Conclusion(s): Our study demonstrated that postoperative urinary NGAL levels at 48 hours postsurgery strongly predicts the onset or severity of postoperative AKI based on KDIGO classification in patients with preoperative kidney impairment and were also strongly related to 7-year survival.

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30987577 [https://www.ncbi.nlm.nih.gov/pubmed/?term=30987577]
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Publisher
Bentham Science Publishers (P.O. Box 294, Bussum 1400 AG, Netherlands)
Year of Publication
2019

376.

Transversus Abdominal Plane Block in Children: Efficacy and Safety: A Randomized Clinical Study and Pharmacokinetic Profile.
Sola C., Menace C., Bringuier S., Saour A.-C., Raux O., Mathieu O., Capdevila X., Dadure C.
Embase
Anesthesia and Analgesia. 128(6) (pp 1234-1241), 2019. Date of Publication: 01 Jun 2019.
[Article]
AN: 629630383
BACKGROUND: The transversus abdominis plane (TAP) block has become a common regional anesthesia technique for pain management in a wide variety of abdominal procedures. Evidence to support any particular local anesthetic regimen as well as pharmacokinetic and systemic toxicity risks of TAP block remain insufficiently studied in children. The aim of this study was to compare the analgesic effects and investigate pharmacokinetic profile of levobupivacaine after ultrasound-guided TAP block using a low volume/high concentration (LVHC) or a high volume/low concentration (HVLC) solution in children.

METHOD(S): This prospective randomized study included children scheduled for day-case inguinal surgery. Children were randomized to receive TAP block using 0.4 mg.kg-1 levobupivacaine as either HVLC (0.2 mL.kg-1 of 0.2% levobupivacaine) or LVHC (0.1 mL.kg-1 of 0.4% levobupivacaine). The primary outcome was the number of children who required opioid rescue analgesia postoperatively. Pharmacokinetic profile study of levobupivacaine was also performed.
RESULT(S): Seventy patients were equally randomized, and 65 were included in the final analysis. Seventy-one percent of patients did not require any postoperative opioid analgesia. The number of patients who received rescue analgesia was 12 (35%) in the LVHC group and 7 (23%) in the HVLC group (relative risk, 0.64; 95% confidence interval [CI], 0.29-1.42; P =.26). Mean pain scores (FLACC [faces, legs, activity, cry, and consolability]) at postanesthesia care unit discharge did not differ between LVHC and HVLC groups, respectively, 0.39 +/- 0.86 and 1 +/- 1.71 with mean group difference -0.60 (95% CI, -1.27 to 0.06; P =.08). The pharmacokinetic profile of levobupivacaine was comparable in the 2 groups: the mean total and free levobupivacaine peak concentrations were 379 +/- 248 and 3.95 +/- 3.16 ng.mL-1, respectively, occurring 22.5 +/- 11 minutes after injection. The highest total and free levobupivacaine concentrations collected, respectively, 1360 and 15.1 ng.mL-1, remained far below theoretical toxic thresholds.
CONCLUSION(S): In children, quality of postoperative pain control provided by TAP block using levobupivacaine 0.4 mg.kg-1 administered as either HVLC or LVHC did not differ and was associated with a very low risk of local anesthetic systemic toxicity.

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Publisher
Lippincott Williams and Wilkins (E-mail: kathiest.clai@apta.org)
Clinical Trial Number
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Year of Publication
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377.

Inguinal hernia repair in preterm neonates: Is there evidence that spinal or general anaesthesia is the better option regarding intraoperative and postoperative complications? A systematic review and meta-analysis.
Dohms K., Hein M., Rossaint R., Coburn M., Stoppe C., Ehret C.B., Berger T., Schalte G.
Embase

BMJ Open. 9(10) (no pagination), 2019. Article Number: e028728. Date of Publication: 01 Oct 2019.
[Review]
AN: 629724049
Objectives Whether spinal anaesthesia (SA) reduces intraoperative and postoperative complications compared with general anaesthesia (GA) was investigated. Design The meta-analysis was structured based on the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) statement. Databases (PubMed, MEDLINE, EMBASE, Cochrane Central Register of Controlled Trials and Web of Science) were searched, and four randomised controlled trials (RCTs) and two retrospective cohort studies were included. A random-effects model with pooled risk ratios and mean differences with 95% CIs were used. Statistical heterogeneity was evaluated using the I 2 statistic. Quality assessment of the studies was performed by assessing the risk of bias according to the Cochrane and GRADE methodology. Setting Publications from January 1990 to November 2018 were included. Participants and interventions Our study selection captured information from studies focusing on neonates born before the 37th gestational week who were scheduled for an inguinal hernia repair operation under either SA or GA. Primary and secondary outcome measures The primary outcome measures were apnoea, postoperative ventilation and method failure rates according to predefined eligibility criteria. The duration of surgery, desaturation events <80%, hospital stay duration and postoperative bradycardia were secondary outcomes. Results We found significantly fewer events for the outcomes a any episode of apnoea' and a mechanical ventilation postoperatively' in the SA group. Bradycardias were significantly less common in the SA group. In total, 7.5% of the SA group were converted to GA. The duration of surgery was significantly shorter in the SA group. No significant differences were found in the outcome measures a postoperative oxygen supplementation', a prolonged apnoea', a postoperative oxygen desaturation <80%' and a hospital stay'. Conclusions We consider SA a convenient alternative for hernia repair in preterm infants, providing more safety regarding postoperative apnoea. To the best of our knowledge, this is the first meta-analysis to include studies exclusively comparing SA versus GA. More high-quality RCTs are needed. Trial registration number CRD42016048683

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Publisher
BMJ Publishing Group (E-mail: subscriptions@bmjgroup.com)
Year of Publication
2019

378.

A less invasive technique for delayed bladder exstrophy closure without fascia closure and immobilisation: can the need for prolonged anaesthesia be avoided?.
Nikolaev V.V.
Embase
Pediatric Surgery International. 35(11) (pp 1317-1325), 2019. Date of Publication: 01 Nov 2019.

[Article]
AN: 2002410405
Introduction: It is believed that the main factors enhancing security of the bladder exstrophy closure are use of osteotomy, pubic bones approximation or transferred flaps for rectus fascia closure. However, these methods increase operating time, surgical trauma and carry risks for the patient.
Objective(s): To demonstrate that the goal of secure bladder exstrophy closure can be achieved easier technically and safer for the child than previously thought. The paper examines the hypothesis that less invasive bladder exstrophy closure achieved without fascia closure can reduce pain and avoid the need for immobilization and prolonged analgesia. Study design: Patients aged 34 days to 15 years (n = 36) from 37 who consecutively referred to the institution with classical bladder exstrophy between 2004 and 2016 underwent modified delayed primary (25) or redo (11) closure. One boy with low weight was excluded. Patient and treatment features were analysed to determine needs for immobilisation and anaesthesia in the postoperative period, and outcomes. Procedure: Bladder exstrophy closure with proximal urethroplasty was performed with the detachment of crura from the ishiopubic rami and levators-from obturator internus muscle. Abdominal wall closure was accomplished with skin and subcutaneous fat mobilisation without rectus fascia closure. No method of immobilization was applied. Results and limitations: Bladder closures have been successful in all 36 children in this report after 37 months (22-138) follow up. The surgeries took time between 126 and 215 min (mean - 148). After 1 day in the ICU the majority of the patients (34/36) were returned to the ward. No bladder spasms or signs of acute pain were noted in the ward; therefore, no local anesthesia or opioids were needed. Intravenous analgesia with non-narcotic analgesics was used for all patients in the ward for an average period 2.2 days (95% CI 2-4 days). Complications: Minor complications: two fistulas, which closed spontaneously; three bladder outlet obstructions, each required one endoscopic incision. No major complications of exstrophy closure such as dehiscence or bladder prolapse were occurred.
Conclusion(s): The proposed less invasive technique with relieved postoperative program is the way to obtain successful bladder exstrophy closure as well as to reduce some risks for the patients. Absence of major complications, and avoiding the need for immobilisation and prolonged analgesia, contribute to the benefits of this approach.

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Springer Verlag (E-mail: service@springer.de)
Year of Publication
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379.

Preoperative metabolic acidosis and acute kidney injury after open laparotomy in the neonatal intensive care unit.

Yum S.K., Seo Y.M., Youn Y.-A., Sung I.K.
Embase
Pediatrics International. 61(10) (pp 994-1000), 2019. Date of Publication: 01 Oct 2019.
[Article]
AN: 2003492621
Background: This study evaluated potential risk factors associated with acute kidney injury (AKI) in infants undergoing bedside open laparotomy in the neonatal intensive care unit (NICU), and analyzed the association between postoperative AKI and outcomes.
Method(s): Retrospective data, including neonatal characteristics, perioperative findings (i.e. vital signs and fluid status), postoperative AKI incidence, and postoperative mortality rate of infants who underwent bedside open laparotomy in the NICU between May 2013 and May 2018 were collected and analyzed.
Result(s): A total of 53 cases (26 in AKI group vs 27 in non-AKI group) were analyzed. On univariable analysis, transfusion, pre- and postoperative blood gas analysis and number of inotropic agents, cumulative postoperative percentage fluid overload (48 h), and preoperative hourly urine output were associated with the development of postoperative AKI. On multivariable logistic regression analysis, preoperative acidosis (pH <7.15 or base deficit >10; P = 0.002; OR, 11.067; 95%CI: 2.499-49.017) and preoperative urine output (P = 0.035; OR, 0.548; 95%CI: 0.314-0.959) were significant factors associated with postoperative AKI. Postoperative mortality rate 30 days after surgery was higher in the AKI group, but the difference was not significant.
Conclusion(s): Preoperative metabolic acidosis and urine output are important factors potentially associated with the development of postoperative AKI in neonates undergoing bedside open laparotomy. Strategies such as alkali therapy, which protect the kidney from further injury, should be validated in future studies. A decreasing urine output may suggest deteriorating kidney function prior to surgery, potentially amplifying the risk of postoperative AKI.

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Publisher
Blackwell Publishing
Year of Publication
2019

380.

Modified tubeless minimally invasive percutaneous nephrolithotomy for management of renal stones in children: A single-centre experience.
Sebaey A., Abdelaal A., Elshaer A., Alazaby H., Kadeel W., Soliman T., Elbarky E.
Embase
Arab Journal of Urology. 17(4) (pp 285-291), 2019. Date of Publication: 02 Oct 2019.
[Article]
AN: 2002757360
Objectives: To evaluate the safety, effectiveness and morbidity, as well as the usefulness of a modified supine mini-percutaneous nephrolithotomy (PCNL) for managing renal stones in children.

Patients and Methods: We studied 50 children, from September 2017 to September 2018, who were aged 4-16 years with a single renal pelvic or calyceal stone of <2 cm. We used a 9-F short ureteroscope through a 16-F metal access sheath with an alternative approach that allows a second percutaneous procedure using the same tract. If a residual stone was present, we recovered the track back through the exteriorised ureteric catheter at the flank.
Result(s): Of all 50 patients, 48 (96%) underwent the modified supine mini-PCNL technique, which produced a primary stone-free rate of 80% that increased to 100% after treating the residual stones by a second look. The mean operative and fluoroscopic times were 89.10 and 7.68 min, respectively. One case (2%) had significant bleeding and one case (2%) had pelvic perforation; and a nephrostomy tube was inserted in both cases. The mean haemoglobin drop was 0.91 g/dL (P < 0.001). The mean hospital stay was 1.42 days and the mean pain score was 2.08, the pain score was 5 in the two cases in which a nephrostomy tube was inserted.
Conclusion(s): The modified supine mini-PCNL is a safe and effective method for managing renal stones in children, with less postoperative pain and discomfort, less analgesic requirement, and provides access back for a second look. Abbreviations: ESWL: extracorporeal shockwave lithotripsy; Hb: haemoglobin: PCNL: percutaneous nephrolithotomy; SFR: stone-free rate.

Status
Embase
Institution
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Publisher
Taylor and Francis Ltd. (E-mail: michael.wagreich@univie.ac.at)
Year of Publication
2019

381.

Minilaparoscopic Versus Open Pyeloplasty in Children Less Than 1 Year.
Masieri L., Sforza S., Cini C., Escolino M., Grosso A., Esposito C., Minervini A., Carini M.
Embase
Journal of Laparoendoscopic and Advanced Surgical Techniques. 29(7) (pp 970-975), 2019. Date of Publication: 01 Jul 2019.
[Article]
AN: 628508273
Purpose: The aim of this study is to compare minilaparoscopic (MLS) and open pyeloplasty (OP) in children <1 year in terms of intra- and perioperative outcomes and esthetic results.
Material(s) and Method(s): Patients <1 year of age, with prenatal hydronephrosis, who underwent Anderson-Hynes pyeloplasty for monolateral ureteropelvic junction obstruction (UPJO) at our center from January 2016 to August 2017 were enrolled in the study. Outcomes evaluated were as follows: operative time, length of hospital stay, and postoperative pain anterior-posterior pelvic diameter (APD) reduction. The Vancouver Scar Scale (VSS) was utilized to evaluate esthetic results. Mean follow-up was 26.5 months.
Result(s): Eighteen patients (11M, 7F) of mean age 8.1 months (range 4-12) and mean weight 8.5 kg (range 7-10) underwent Anderson-Hynes pyeloplasty in the study period. Nine of eighteen underwent OP, and 9/18 underwent MLS. Mean operative time was 167 minutes for MLS versus 153 minutes for OP (P = .14). Mean hospital stay was 3.9 days for MLS versus 5.3 days for OP (P = .11). Mean APD reduction was 13.6 mm for MLS and 16.5 mm for OP procedures (P = .63). Mean VSS score was 1.3 for VLS versus 3.4 for OP (P = .04).

Conclusion(s): MLS pyeloplasty is feasible and safe, and reported equivalent results as open procedure for management of UPJO also in toddlers and infants. We found that the only significant difference between the two approaches in children <1 year was represented by the esthetic outcome in the short follow-up period.

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31211649 [https://www.ncbi.nlm.nih.gov/pubmed/?term=31211649]
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Publisher
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Year of Publication
2019

382.

Ultrasound-guided dorsal penile nerve block vs neurostimulator-guided pudendal nerve block in children undergoing hypospadias surgery: A prospective, randomized, double-blinded trial.
Aksu C., Akay M.A., Sen M.C., Gurkan Y.
Embase
Paediatric Anaesthesia. 29(10) (pp 1046-1052), 2019. Date of Publication: 01 Oct 2019.
[Article]
AN: 2002661856
Background and Aims: Hypospadias is a common congenital malformation in pediatric patients. Surgical repair of this malformation is a painful procedure and has long-term effects. Pudendal and penile nerve blocks are commonly preferred techniques for maintaining postoperative analgesia. However, the conventional landmark-based penile block technique involves numerous potential complications and provides a shorter analgesic period compared to the pudendal block. A promising ultrasound-guided dorsal penile nerve block was recently described. We aimed to compare the analgesic effectiveness of ultrasound-guided penile nerve block with that of neurostimulator-guided pudendal nerve block.
Method(s): Thirty-three patients aged 1-7 years were included in this prospective, double-blinded, randomized controlled trial. Patients were divided into two groups and received either ultrasound-guided dorsal penile nerve block or neurostimulator-guided pudendal nerve block. All blocks were performed by the same two anesthesiologists, and the same surgeons performed the surgical procedures. The Face, Legs, Activity, Cry, and Consolability (FLACC) scale was used for postoperative pain management. The primary outcome of the study was time to first analgesic requirement. Secondary outcomes were FLACC scores at different time points, and types and cumulative doses of analgesic drugs.
Result(s): Dorsal penile nerve block provided longer analgesia than pudendal nerve block (32.29 +/- 5.47 hours and 21.13 +/- 3.53 hours, respectively; differences in mean: 11.16, 95% CI: 7.873-14.465) (P <.001). FLACC scores at the time of first analgesic requirement were significantly lower in dorsal penile nerve block group than pudendal nerve block group (median [IQR]: 2 [2-2.5] and 3 [3-5], respectively; differences in median: -1, 95% CI: -1.851 to -0.149) (P <.001).
Conclusion(s): Ultrasound-guided dorsal penile nerve block provided a longer analgesic period and reduced opioid consumption compared to neurostimulator-guided pudendal nerve block.

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Publisher
Blackwell Publishing Ltd
Clinical Trial Number
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Year of Publication
2019

383.

Renal replacement therapy in the pediatric cardiac intensive care unit.
Hames D.L., Ferguson M.A., Kaza A.K., Rajagopal S., Thiagarajan R.R., Teele S.A., Salvin J.W.
Embase
Journal of Thoracic and Cardiovascular Surgery. 158(5) (pp 1446-1455), 2019. Date of Publication: November 2019.
[Article]
AN: 2002479398
Objective: There is an increased risk of mortality in patients in whom acute kidney injury and fluid accumulation develop after cardiothoracic surgery, and the risk is especially high when renal replacement therapy is needed. However, renal replacement therapy remains an essential intervention in managing these patients. The objective of this study was to identify risk factors for mortality in surgical patients requiring renal replacement therapy in a pediatric cardiac intensive care unit.
Method(s): We performed a retrospective review of patients requiring renal replacement therapy for acute kidney injury or fluid accumulation after cardiothoracic surgery between January 2009 and December 2017. Survivors and nonsurvivors were compared with respect to multiple variables, and a multivariable logistic regression analysis was performed to identify independent risk factors associated with mortality.
Result(s): The mortality rate for the cohort was 75%. Nonsurvivors were younger (nonsurvivors: 0.8 years; interquartile range, 0.1-8.2; survivors: 14.6 years; interquartile range, 4.2-19.7; P = .002) and had a lower weight-for-age z-score (nonsurvivors: -1.5; interquartile range, -3.1 to -0.4; survivors: -0.5; interquartile range, -0.9 to 0.3; P = .02) compared with survivors. There was no difference with respect to fluid accumulation. In multivariable analysis, a longer duration of stage 3 acute kidney injury before initiation of renal replacement therapy was independently associated with mortality (adjusted odds ratio, 1.39; 95% confidence interval, 1.05-1.83; P = .021).
Conclusion(s): Mortality in patients requiring renal replacement therapy after congenital heart disease surgery is high. A longer duration of acute kidney injury before renal replacement therapy initiation is associated with increased mortality.

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Publisher
Mosby Inc. (E-mail: customerservice@mosby.com)
Year of Publication
2019

384.

Safety and efficacy of ureteroscopy and stone fragmentation for pediatric renal stones: A systematic review.
Whatley A., Jones P., Aboumarzouk O., Somani B.K.
Embase
Translational Andrology and Urology. 8(Supplement4) (pp S442-S447), 2019. Date of Publication: 01 Sep 2019.
[Review]
AN: 629547515
Flexible ureteroscopy (FURS) is now commonly used for the treatment of paediatric renal stones. We conducted a systematic review of literature looking at the outcomes of flexible ureteroscopy and laser lithotripsy (FURSL) for paediatric stone disease. A systematic review was conducted in a Cochrane style and in accordance PRISMA checklist using MEDLINE, CINAHL, EMBASE, Scopus, and Cochrane library for all English language articles in patients <=18 years from 1990-2018 who underwent FURSL. A total of 11 studies reported on 431 patients, with a mean age of 8.5 years (range, 0.25-17 years). The mean stone size was 13 mm (range, 1.5-30 mm). The overall stone free rate (SFR) was 87% (58-100%) with a mean complication rate of 12.6% (n=55) (range, 0-31.3%) and 76% needing a post-operative ureteric stent insertion. Of the complications, Clavien I/II complications included fever and urinary tract infection (UTI) (n=19), haematuria (n=7), stent discomfort/stent symptoms/post-operative pain (n=8), voiding disturbance (n=2) and post-operative nausea and vomiting (n=1). Clavien III complications included ureteral injury which included perforation (n=6), urinoma (n=1), and acute urinary retention secondary to stone fragmentation (n=1). Clavien IV complications were urinoma (n=2) and no Clavien V complications were noted. Our review suggests that ureteroscopy and laser stone fragmentation for paediatric population is a safe and effective treatment with good SFR and a low risk of complications.

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2019

385.

Laparoscopic versus open pediatric inguinal hernia repair: state-of-the-art comparison and future perspectives from a meta-analysis.
Dreuning K., Maat S., Twisk J., van Heurn E., Derikx J.
Embase
Surgical Endoscopy. 33(10) (pp 3177-3191), 2019. Date of Publication: 15 Oct 2019.
[Review]
AN: 2002294689
Background: Laparoscopic inguinal hernia repair in children is increasingly performed as it allows contralateral inspection and potentially results in shorter operation time and less complications. Evidence from meta-analyses of randomized controlled trials (RCTs) regarding the superiority of laparoscopic versus open hernia repair is lacking.
Method(s): A systematic literature search was performed querying PubMed, Embase, MEDLINE, and the Cochrane Library databases. RCTs comparing laparoscopic with open hernia repair in children were considered eligible, without year and language restrictions. Cochrane Risk of Bias tool was used for quality assessment. Data were pooled using a random-effects model. Subgroup analyses were performed according to the laparoscopic suturing technique (i.e., intracorporeal or extracorporeal).
Result(s): Eight RCTs (n = 733 patients; age range 4 months-16 years) were included in this meta-analysis. Laparoscopic (LH) and open (OH) hernia repair was performed in 375 and 358 patients, respectively. Complications (seven RCTs, n = 693; pooled OR 0.50, 95% CI 0.14 to 1.79), recurrences (seven RCTs, n = 693; pooled OR 0.88, 95% CI 0.20 to 3.88), and MCIH rates (four RCTs, n = 343; pooled OR 0.28, 95% CI 0.04 to 1.86) were not different between the groups. LH resulted in shorter bilateral operation time (Five RCTs, n = 194; weighted mean difference (WMD) - 7.19, 95% CI - 10.04 to - 4.34). Unilateral operation time, length of hospital stay, and time to recovery were similar. There was insufficient evidence to assess postoperative pain and wound cosmesis, and evidence of substantial heterogeneity between the included studies. Subgroup analyses demonstrated less complications and shorter unilateral operation time for extracorporeal suturing and shorter length of hospital stay for intracorporeal suturing.
Conclusions and relevance: No definite conclusions to decide on the superiority of one of either treatment strategies can yet be drawn from the available literature. There was evidence of substantial heterogeneity and the clinical relevance of most estimated effects is very limited.

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Publisher
Springer New York LLC (E-mail: barbara.b.bertram@gsk.com)
Year of Publication
2019

386.

Comparing local infiltration of wounds with bupivacaine and intravenous paracetamol in paediatric inguinal surgeries.
Ahmad J.A.M., Sheikh M.A., Latif T., Ahmad M., Zia M.W., Saleem M.
Embase
Pakistan Journal of Medical and Health Sciences. 13(2) (pp 318-322), 2019. Date of Publication: 2019.
[Article]
AN: 2002769375
Background: Bupivacaine is quite effective in reducing post-operative pain in children and it helps to reduce the dosage of analgesia after operation. It contributes significantly to early mobilization and discharge from hospital thus reducing cost incurred by the patient.
Aim(s): To evaluate and compare the efficacy of local infiltration of Bupivacaine in surgical clean wounds with I/v Paracetamol (acetaminophen) among children in early post-operative pain management in inguinal surgeries. Study design: It was double blind randomized clinical trial. Place & duration of study: This study was conducted in the Department of Paediatric Surgery, Shaikh Zayed Hospital, Lahore from July 2016 to July 2017.
Method(s): 140 patients were enrolled and divided in two groups. All relevant surgical steps were followed and in one group before closing skin 0.5% Bupivacaine (1 mg/kg) diluted in distal water and infiltrated in the incision, while in second group Paracetamol infusion was given intravenously during surgery. The pain score was measured in both groups of patients by applying the Face, Leg, Activity, Cry and Consolability scale (FLACC) 30 minutes after operation as base line and then after every 1 hour for the next 06 hours. Comparison at each hour interval for FLACC and duration without requirement of additional analgesia was performed between two groups by using independent sample T-test. Data for requirement of additional analgesia was described by using frequency and percentages for two groups and comparison was made by using Chi-Square test.
Result(s): Age range in this study was from 2 to 60 months with mean age of 27.32+/-16.29 months. The mean age of patients in group A was 26.48+/-19.70 months and in group B was 28.51+/-19.18 months. In Group-A, 62(88.6%) were males and 8(11.4%) were female. In Group-B, 58(82.9%) were male and 12(17.1%). It was also recorded that, there was a significant difference between groups according to additional analgesia given (p>0.001).
Conclusion(s): Local infiltration of wound with Bupivacaine provides better and prolong analgesia than IV paracetamol in post-operative pain management.

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Year of Publication
2019

387.

Comparison between epidural and opioid analgesia for infants undergoing major abdominal surgery.
Martin L.D., Adams T.L., Duling L.C., Grigg E.B., Bosenberg A., Onchiri F., Jimenez N.
Embase
Paediatric Anaesthesia. 29(8) (pp 835-842), 2019. Date of Publication: 2019.
[Article]
AN: 628306456
Background: Epidural analgesia is considered optimal for postoperative pain management after major abdominal surgery. The potential to decrease anesthetic and opioid exposure is particularly desirable for infants, given their vulnerability to respiratory depression and concern for anesthetic neurotoxicity. We reviewed our experience with infants undergoing major abdominal surgery to determine if epidural catheter use decreased anesthetic and opioid exposure and improved postoperative analgesia.
Method(s): This retrospective cohort study included infants (<12 months) who underwent exploratory laparotomy, ureteral reimplantation, or bladder exstrophy repair between November 2011 and November 2014. Primary outcomes of anesthetic exposure (mean endtidal sevoflurane) and intraoperative opioid administration were compared between infants who received epidural catheters and those who did not. Secondary outcomes included postoperative pain and sedation scores and morphine equivalents administered 0-24 and 24-48 hours after surgery.
Result(s): Of 158 eligible infants, 82 were included and 47 received epidurals. Patients with epidurals underwent bladder exstrophy repair (N = 9), ureteral reimplantation (N = 8), and exploratory laparotomy (N = 30). Infants with epidurals received less intraoperative fentanyl (2.6 mcg/kg (0,4.5) vs 3.3 mcg/kg (2.4,5.8), P = 0.019) and morphine (6% (3/47) vs 26% (9/35), P = 0.014) in univariate analysis. After controlling for age and emergency surgery, differences in long-acting opioid administration persisted, with significantly less morphine given in the epidural group (OR 0.181; 95% CI 0.035-0.925; P = 0.040). Mean endtidal sevoflurane concentrations were similar between groups. There was no significant difference in postoperative median morphine equivalents.
Conclusion(s): Placement of epidural catheters in infants undergoing major abdominal surgery is associated with decreased long-acting opioid requirements intraoperatively. Epidural placement does not preclude opioid exposure however, as opioids may be administered for indications other than nociceptive pain in the difficult-to-assess postoperative infant. Further prospective studies are warranted to better quantify the effect of epidural analgesia on intraoperative anesthetic exposure in infants.

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388.

Postsurgery analgesic and sedative drug use in a French neonatal intensive care unit: A single-center retrospective cohort study.
Benahmed-Canat A., Plaisant F., Riche B., Rabilloud M., Canat G., Paret N., Claris O., Kassai B., Nguyen K.A.
Embase
Archives de Pediatrie. 26(3) (pp 145-150), 2019. Date of Publication: April 2019.
[Article]
AN: 2001693444
Objective: To describe pain assessment, the pattern of analgesic and sedative drug use, and adverse drug reactions in a neonatal intensive care unit (NICU) during the postsurgery phase.
Method(s): Demographic characteristics, pain scores, and drug use were extracted and analyzed from electronic patient medical files for infants after surgery, admitted consecutively between January 2012 and June 2013.
Result(s): One hundred and sixty-eight infants were included. Acute (DAN score) and prolonged (EDIN score) pain assessment scores were used in 79% and 64% of infants, respectively, on the 1st day. This percentage decreased over the 7 days following surgery. The weekly average scores postsurgery were 2/15 (+/-2.2) for the EDIN score and 1.6/10 (+/-2.0) for the DAN score. The rates of pain control were 88% for the EDIN and 72% for the DAN. The most prescribed opiate drug was fentanyl (98 patients; 58%) with an average dose of 1.8 (+/-0.6) mug/kg/h. Midazolam was used in 95 patients (56%), with an average dose of 35 (+/-14) mug/kg/h. A bolus was administered in 7% (+/-7.4) of the total dose for fentanyl and 8% (+/-9.3) for midazolam. Similar doses were used in term and preterm neonates. Of 118 patients receiving fentanyl and/or midazolam, 40% presented urinary retention, 28% a weaning syndrome. Paracetamol (155 patients; 92%) and nalbuphine (55 patients; 33%) were the other medications most often prescribed.
Conclusion(s): The off-label use of fentanyl and midazolam was necessary to treat pain after surgery. Pain assessment should be conducted for all neonates in order to optimize their treatment. Research on analgesic and sedative medicine in vulnerable neonates seems necessary to standardize practices and reduce adverse drug reactions.

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Year of Publication
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389.

Reducing Opioid Prescriptions in Outpatient Pediatric Urological Surgery.
Cardona-Grau D., Bush R.A., Le H.-K., Huang J., Swords K., Marietti S., Alagiri M., Chiang G.
Embase
Journal of Urology. 201(5) (pp 1012-1016), 2019. Date of Publication: 01 May 2019.
[Article]
AN: 628786715
Purpose:We assessed the impact of a 2-phase Plan-Do-Study-Act cycle to decrease opioid prescriptions following pediatric urological surgery.Materials and Methods:Parents of children undergoing outpatient urological procedures were given questionnaires to assess opioid dosing and pain scores using the Parents' Postoperative Pain Measure scale. Age, procedure and opioid prescription data were recorded, as well as volume of medication administered. During the first phase of data collection children received an opioid prescription for 10 doses. In the second phase opioid prescriptions were reduced by 50%. Nonparametric tests and Fisher exact test were used for analysis.
Result(s):Of 250 eligible children 98 (39%) with a median age of 3.0 years (IQR 7.0) participated. In the 81 patients prescribed opioids a median of 2 doses (IQR 3.6) were used in the preintervention and postintervention groups (p = 0.68). Using nonparametric statistical testing, no significant differences were found between pain scores in the 5-dose group (31 patients) and the 10-dose group (24 patients; p = 0.05 for day 1, p = 0.07 for day 2, p = 0.06 for day 3). There was no association between age and percent opioid used (p = 0.83). There were no significant differences in median pain scores or median doses among procedure types.
Conclusion(s):In outpatient pediatric surgical practice opioid prescriptions can be decreased without increasing pain scores. Physician prescribing practices may contribute more to opioid consumption than actual pain patterns.

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390.

Epidural analgesia decreases narcotic requirements in patients with low level spina bifida undergoing urological laparotomy for neurogenic bladder and bowel.
Roth J.D., Misseri R., Whittaker S.C., Monn M.F., Horn N.D., Cain M.P., Green M.C.
Embase
Journal of Urology. 201(1) (pp 169-173), 2019. Date of Publication: 01 Jan 2019.

[Article]
AN: 628754961
Purpose:Concerns regarding anatomical anomalies and worsening neurological symptoms have prevented widespread use of epidural catheters in patients with low level spina bifida. We hypothesize that thoracic epidural placement in the T9 to T10 interspace is safe and decreases narcotic requirements following major open lower urinary tract reconstruction in patients with low level spina bifida.Materials and Methods:We reviewed consecutive patients with low level spina bifida who underwent lower urinary tract reconstruction and received epidurals for postoperative pain control. Controls were patients with low level spina bifida who received single injection transversus abdominis plane blocks and underwent similar procedures. Complications of epidural placement, including changes in motor and sensory status, were recorded. Opioid consumption was calculated using equivalent intravenous morphine doses. Mean and maximum pain scores on postoperative days 0 to 3 were calculated.
Result(s):Ten patients with low level spina bifida who underwent lower urinary tract reconstruction with epidural were matched to 10 controls with low level spina bifida who underwent lower urinary tract reconstruction with transverse abdominis plane block. Groups were demographically similar. All patients had full abdominal sensation and functional levels at or below L3. No epidural complications or changes in neurological status were noted. The epidural group had decreased opioid consumption on postoperative days 0 to 3 (0.75 mg/kg vs 1.29 mg/kg, p = 0.04). Pain scores were similar or improved in the epidural group.
Conclusion(s):Thoracic epidural analgesia appears to be a safe and effective opioid sparing option to assist with postoperative pain management following lower urinary tract reconstruction in individuals with low level spina bifida.

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30577407 [https://www.ncbi.nlm.nih.gov/pubmed/?term=30577407]
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Lippincott Williams and Wilkins (E-mail: kathiest.clai@apta.org)
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2019

391.

Trends in perioperative opioid and non-opioid utilization during ambulatory surgery in children.
Rizeq Y.K., Many B.T., Vacek J.C., Silver I., Goldstein S.D., Abdullah F., Raval M.V.
Embase
Surgery (United States). 166(2) (pp 172-176), 2019. Date of Publication: August 2019.
[Article]
AN: 2001993097
Background: In the midst of our national opioid crisis, recommendations have encouraged judicious stewardship of opioid prescription through the expanded use of non-opioid analgesic medications. This study aims to characterize trends in perioperative pain medication use for children undergoing ambulatory operations.

Method(s): A cross-sectional, retrospective review was conducted using the Pediatric Health Information System. Patients younger than 18 years of age who underwent ambulatory surgery during 2010 to 2017 by one of five surgical subspecialties (otolaryngology, general pediatric, plastic or reconstructive, orthopedics, and urology) were included. Medications were identified using Current Procedural Terminology codes based on billing information for 18 commonly used analgesics along with the route of administration during their encounter.
Result(s): A total of 1,795,329 patients with a median age of 10 years were identified, of whom 84.3% received an opioid or non-opioid analgesic. Opioid use in the perioperative setting for ambulatory procedures decreased during the study period from 74.9% to 66.9% as a proportion of total analgesic prescriptions. Among opioids commonly used, intravenous morphine decreased the most from 19.8% to 15.4%, and intravenous hydromorphone and oral oxycodone use remained largely unchanged. Conversely, non-opiate medications increased, specifically intravenous ketorolac from 8.4% to 13.6%, and intravenous acetaminophen use increased from 0% to 8.5%. Intravenous acetaminophen use more than doubled between 2013 and 2017 (3.4% to 8.2%) and was accompanied by a decrease in oral acetaminophen use (14.4% to 9.3%).
Conclusion(s): Overall, perioperative opioid utilization appears to be decreasing in favor of non-opioid analgesics. Other trends, such as increased intravenous acetaminophen, raise concerns for the cost effectiveness of perioperative analgesia and resource utilization.

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Mosby Inc. (E-mail: customerservice@mosby.com)
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392.

Transmuscular quadratus lumborum block versus thoracic paravertebral block for acute pain and quality of recovery after laparoscopic renal surgery: Study protocol for a randomized controlled trial.
Yuan Q., Cui X., Fei Y., Xu Z., Huang Y.
Embase
Trials. 20(1) (no pagination), 2019. Article Number: 276. Date of Publication: 20 May 2019.
[Article]
AN: 628189799
Background: Quadratus lumborum block (QLB) is increasingly gaining popularity as a novel abdominal truncal block in abdominal surgery; however, the mechanism of QLB is not yet thoroughly illustrated. The focus of our study is transmuscular QLB (TMQLB), as the latest anatomical evidence shows that anesthetics spread into the thoracic paravertebral space to exert an analgesic effect. Therefore, we designed this study to compare TMQLB with thoracic paravertebral block (TPVB) in laparoscopic renal surgery in the hope of providing clinical evidence on the analgesic mechanism of TMQLB and its application in laparoscopic renal surgery.
Method(s): This trial is a prospective, randomized, single-center, open-label, parallel, three-arm, non-inferiority trial. We intend to include 120 participants undergoing laparoscopic nephrectomy and before surgery they will be randomized into three groups for postoperative pain control:

TMQLB experimental group 1 (0.4 ml/kg body weight 0.5% ropivacaine), TMQLB experimental group 2 (0.6 ml/kg body weight 0.5% ropivacaine) or TPVB control group (0.4 ml/kg body weight 0.5% ropivacaine at vertebra T10). Patients will be excluded if they have allergy to anesthetics, infection at the injection site, are on coagulopathy or anticoagulants, on analgesics for chronic illness, have history of substance abuse or have a barrier to communication. Morphine is given in boluses of 1.5~2 mg by intravenous patient-controlled analgesia (IPCA) in the first 48 h after surgery. The primary outcome is the difference between TMQLB group 1 and the TPVB group in the mean visual analogue scale (VAS) pain score in the first 24 h after surgery. Secondary outcomes are the difference between TMQLB group 2 and the TPVB group in the mean VAS score in the first 24 h after surgery, cumulative morphine consumption, long-term pain control, dermatomal distribution of sensory loss, nausea score, pruritus score, ambulation time, time till recovery of bowel movement, quality of recovery, postoperative length of hospital stay and patient satisfaction with anesthesia. Safety data on procedure-related complications will also be summarized.
Discussion(s): This will the first randomized controlled trial to compare TMQLB with TPVB for analgesia in laparoscopic surgery. This trial aims to provide important clinical evidence to elaborate on the analgesic mechanism of TMQLB. Trial registration: ClinicalTrials.gov, NCT03414281. Registered on 9 January 2018.

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Publisher
BioMed Central Ltd. (E-mail: info@biomedcentral.com)
Clinical Trial Number
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Year of Publication
2019

393.

Laparoscopic Approach to Inguinal Disruption in Athletes: a Retrospective 13-Year Analysis of 198 Patients in a Single-Surgeon Setting.
Piozzi G.N., Cirelli R., Salati I., Maino M.E.M., Leopaldi E., Lenna G., Combi F., Sansonetti G.M.
Embase
Sports Medicine - Open. 5(1) (no pagination), 2019. Article Number: 25. Date of Publication: 01 Dec 2019.
[Article]
AN: 628232492
Background: Inguinal disruption (ID) is a condition of chronic groin pain affecting mainly athletes. ID cannot be defined as a true hernia. Pathogenesis is multifactorial due to repetitive and excessive forces applied to the inguino-pelvic region. Examination reveals tenderness to palpation of the inguinal region. Differential diagnosis is challenging; imaging is helpful for excluding other pathologies. Surgery is the treatment of choice when conservative treatment fails. Primary aim of the study was to evaluate the time to return to full sport activity after

transabdominal preperitoneal patch plasty (TAPP) technique in ID. Secondary aim was to evaluate the postoperative complication rate both in the immediate post-operative time and in 1 year follow-up and to verify the relapse rate after surgery. In this study, we consider time to return to full sport activity as the time needed to return to pre-injury sport activity.
Result(s): A retrospective study is reported by evaluating 198 cases of ID from a single surgeon experience. All patients failed a previous conservative treatment. All cases were treated with the TAPP approach. Time to return to full sport activity was 4 weeks for 94.4% of patients, with a total of 98.5% of active patients at 9 months. Post-operative inguinal pain was the main complication (9.1%). On 13 years follow-up, we report a recurrence rate of 2.5%.
Conclusion(s): Current management algorithm for ID, in professional athletes, supports the role of surgery after at least 2 months of conservative treatment. Recently, the role of surgery has been highlighted for a definitive treatment and a faster full recovery to sport activity, especially for elite professional athletes. In our opinion, laparoscopic surgery is the mainstay for non-responsive ID treatment. We present a long-term retrospective evaluation of a wide cohort of professional athletes diagnosed and treated in a systematic way.

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Publisher
Springer
Year of Publication
2019

394.

Opioid-prescribing patterns, storage, handling, and disposal in postoperative pediatric urology patients.
Garren B.R., Lawrence M.B., McNaull P.P., Sutherland R., Bukowski T.P., Nielsen M.E., Woody N., Clark McCall M.H.A., Ricketts K., Chidgey B.A., Ross S.S.
Embase
Journal of Pediatric Urology. 15(3) (pp 260.e1-260.e7), 2019. Date of Publication: May 2019.
[Article]
AN: 2001844383
Background: Emerging research on surgeons and the opioid epidemic have focused on the adult population. Consequently, little is known regarding opioid-prescribing practices in the pediatric population. The goal of this study is to examine postoperative opioid-prescribing and consumption patterns, as well as storage and disposal trends for specific pediatric urologic procedures. Study design: Patients undergoing surgery associated with specified Current Procedural Terminology codes were retrospectively identified, and details regarding opioid medications were obtained through our pharmacy database. Patients' guardians were contacted two weeks postoperatively to determine opioid usage. Opioids were prescribed at a standard dosing of 0.1 mg/kg per dose or the equivalent.

Result(s): Of the 171 identified patients, 117 patients were successfully contacted, with 67 (39%) completing telephone surveys. The 3 most common pediatric urology procedures were inguinal hernia repair (N = 39), circumcision (N = 27), and cystoscopy (N = 16). Across all procedures, there was an average excess of 9.8 doses prescribed, corresponding to an overprescription rate of 64%. Of the patients prescribed opioids, 41 (62%) had leftover opioid medication two weeks postoperatively. Thirty-two of 41 (78%) patients did not dispose of their leftover medication. Only 13 patients received perioperative counseling on appropriate storage and disposal of opiates.
Discussion(s): Prescribing practices for an array of pediatric urologic procedures are non-standardized and often generously excessive. We show universal overprescribing for all our reviewed urologic procedures. Sixty-two percent of pediatric urology patients did not use their entire prescribed opiate, leaving a significant pool of medicine within the pediatric family home. Given the low incidence of perioperative education, unsurprisingly a majority of our patients improperly handled and disposed off excess opioid medication.
Conclusion(s): There is general overprescription of postoperative opioids and poor perioperative opioid education in the pediatric urology population.[Figure presented]

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Publisher
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Year of Publication
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395.

Comparison between bipolar lymphatic vessels cautery and suture ligature in prevention of postrenal transplant lymphocele formation: A randomized controlled trial.
Simforoosh N., Tabibi A., Rad H.M., Gholamrezaie H.R.
Embase
Experimental and Clinical Transplantation. 17(1) (pp 26-30), 2019. Date of Publication: February 2019.
[Article]
AN: 2001895190
Objectives: In this randomized controlled trial, our aim was to compare bipolar cautery of lymphatic vessels with standard silk-tie ligation in renal transplant procedures for prevention of lymphocele formation.
Material(s) and Method(s): Sixty end-stage renal disease patients were enrolled in a prospective randomized controlled trial. The mean age of recipients in the suture ligature group was 41.6 years (range, 6-65 years) and 40.9 years in the bipolar cautery group. Patients were assessed by symptoms; however, ultrasonography was also used as the primary diagnostic procedure in all patients to find lymphocele collection within 5 months.
Result(s): Of 60 patients, 25 received living-donor kidney transplant and 35 received deceased-donor kidney transplant. Fifty-threeprocedures were firsttime kidney transplants, 6 were retransplants, and 1 was for athird-time transplant. No lymphocele collection (symptomatic or asymptomatic) was diagnosed by ultrasonography at the 5-month followup. Postoperative pain

was not significantly different between the 2 groups (P =.245). The time for ligation or cauterization of lymphatic vessels was similar between the 2 groups. Mean duration of operative field drainage was 5.6 days in the suture ligature group and 6.07 days in the bipolar cautery group (not significantly different; P =.547).
Conclusion(s): Bipolar cautery of lymphatic vessels to prevent lymphocele formation in kidney transplant seems to be an effective, easy, and safe method.

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Year of Publication
2019

396.

Randomised controlled trial of dexmedetomidine sedation vs general anaesthesia for inguinal hernia surgery on perioperative outcomes in infants.
Bong C.L., Tan J., Lim S., Low Y., Sim S.-W., Rajadurai V.S., Khoo P.-C., Allen J., Meaney M., Koh W.-P.
Embase
British Journal of Anaesthesia. 122(5) (pp 662-670), 2019. Date of Publication: May 2019.
[Article]
AN: 2001663761
Background: Neonates and infants undergoing general anaesthesia for hernia surgery are at risk of perioperative cardiorespiratory adverse events. The use of regional anaesthesia with dexmedetomidine preserves airway tone and may potentially avoid these complications. This study compares the perioperative conditions and adverse events between dexmedetomidine sedation with caudal block and general anaesthesia with caudal block for inguinal hernia surgery in infants.
Method(s): A randomised controlled trial was conducted in a tertiary hospital in Singapore involving 104 infants younger than 3 months, who were randomised to receive either dexmedetomidine sedation (DEX) with caudal block or general sevoflurane anaesthesia with tracheal intubation and caudal block (GA) for inguinal hernia surgery. Perioperative conditions, haemodynamics and adverse events were compared between groups.
Result(s): Fifty-one infants received DEX and 48 infants received GA. In the DEX group, 46 infants (90.2%) had their operations completed solely under this technique, two (3.9%) were converted to general anaesthesia with intubation, and three (5.9%) required brief administration of nitrous oxide or low-dose sevoflurane. Overall, 96.1% of infants in the DEX group did not require intubation. Perioperative conditions were similar in both groups. The DEX group had significantly lower heart rates and higher mean arterial pressures intraoperatively. Two infants in the DEX group (3.9%) required postoperative intensive care admission compared with six infants (12.5%) in the GA group.
Conclusion(s): Dexmedetomidine sedation with caudal block provides a feasible alternative to general anaesthesia in infants undergoing hernia surgery. This technique avoids the need for tracheal intubation, which may be beneficial in neonates. Clinical trial registration: NCT02559102.

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397.

Hyperchloremia and diuresis in children undergoing scoliosis surgery: A retrospective cohort study.
Friedman S., Zac L., Cattan A., Ovadia D., Lebel D.E., Matot I.
Embase
Israel Medical Association Journal. 21(2) (pp 94-99), 2019. Date of Publication: February 2019. [Article]
AN: 2001605114
Background: Hyperchloremia is frequent in adult surgical patients and is associated with renal dysfunction. Studies in surgical pediatric patients are lacking.
Objective(s): To identify both the incidence of postoperative hyperchloremia in children undergoing surgery for idiopathic and non-idiopathic scoliosis, and the association of postoperative hyperchloremia with intraoperative fluid management and postoperative diuresis.
Method(s): The records of 74 children and adolescents who underwent elective scoliosis surgery were retrospectively evaluated. The primary endpoint was the incidence of serum chloride level >= 110 mEq/L at the end of surgery and 12 hours postoperatively. Secondary endpoints were the type and volume of administered fluids, 12 hours postoperative diuresis, and the incidence of postoperative oliguria.
Result(s): Hyperchloremia occurred in 55% of the patients at the end of surgery and in 52% 12 hours postoperatively. Hyperchloremic patients received larger intraoperative volume of 0.9% NaCl diluted cell-saver blood and 10% HAES than did normochloremic patients [median (interquartile range) 6.8 (2.5-11.0) ml/kg vs. 0 (0-7.3), P = 0.003 and 10.0 (0-12.8) vs. 4.4 (0-9.8), P = 0.02, respectively]. Additionally, when compared with normochloremic patients, diuresis during the first 12 hours postoperatively was lower in hyperchloremic patients. Postoperative oliguria (urine output < 0.5 ml/kg/hr for 12 hours) was diagnosed in 7 children (9%), of whom 6 were hyperchloremic at the end of surgery.

Conclusion(s): Early postoperative hyperchloremia is common in children undergoing scoliosis repair surgery and may be attributed to the administration of 0.9% NaCl diluted cellsaver blood and 10% HAES. Postoperative hyperchloremia might be associated with postoperative oliguria.

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398.

Pediatric robotic-assisted laparoscopic pyeloplasty (RALP): does weight matter?.
Kafka I.Z., Kocherov S., Jaber J., Chertin B.
Embase
Pediatric Surgery International. 35(3) (pp 391-396), 2019. Date of Publication: 05 Mar 2019.
[Article]
AN: 625939958
Purpose: RALP is rapidly becoming the new gold standard treatment for UPJO in children, who suffer from uretero-pelvic obstruction (UPJO). However, presently there is a lack of data regarding the outcomes of RALP in young infants and smaller children. This study aims to compare the outcomes of RALP in children weighing less than 10 kg and matched with an analogous cohort who underwent open pyeloplasty (OP).
Method(s): We prospectively compared patients who underwent RALP to a matched cohort of patients who underwent OP from our retrospectively acquired data registry. Comparative outcomes included: Demographics, success rate, complications, and length of hospital stay, postoperative pain score and failure rate. Failure was defined as the need for a secondary intervention for UPJO, or worsening hydronephrosis during follow-up.
Result(s): A total of 15 patients with a median age of 8 months (range 5-11 months) and median weight 7 kg (range 5.6-9.8 kg) underwent RALP between 2016 and 2018, a matched cohort of 15 children who underwent OP similar in terms of age, weight, gender and affected side between 2014 and 2016. All children had prenatal diagnosis of hydronephrosis and underwent surgery utilizing combined general and regional (Caudal MO) anesthesia. Intrinsic obstruction was present in 13 of RALP group (86.7%) and in 14 in OP group (93.3%). Mean operative time was 67.8 + 13.4 min in RALP group, while 66.5 + 9.5 min in OP group. (p = 0.76) All but two patients in RALP group had stent inserted and required subsequent anesthesia for stent removal, while all OP children had a Salle Pyeloplasty stent inserted during the procedure and underwent removal in an ambulatory setting without the need for anesthesia. There were no failures recorded in the RALP group, while one patient in OP required a secondary intervention. Mean hospital stay was 1 day (1-2 days) for RALP and 2 days (2-3 days) for OP. There was no difference in FLACC Pain Scale in both groups. Clavien-Dindo grade I-II complications occurred in one patient from each

group. Two patients from RALP underwent subsequent ureteral reimplantation due to accompanying uretero-vescical junction obstruction.
Conclusion(s): Our data suggest that RALP can be performed safely in pediatric patients weighing less than 10 kg. with similar outcomes when compared to patients undergoing an open procedure for the same pathology.

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399.

Ibuprofen in the treatment of children's inflammatory pain: A clinical and pharmacological overview.
Barbagallo M., Sacerdote P.
Embase
Minerva Pediatrica. 71(1) (pp 82-99), 2019. Date of Publication: February 2019.
[Review]
AN: 625941160
Unlike fever, which is often over-treated especially in children, pain is underestimated and under-treated in pediatric age. The pharmacological agents approved for treating pain in these patients are few, also considering the recent limitation for codeine in children younger than 12 years. Paracetamol and the nonsteroidal anti-inflammatory drug (NSAID) ibuprofen are the most used at this purpose. The aim of this overview was to analyze the therapeutic appropriateness of ibuprofen in children based on its pharmacological properties. This work is a critical review of the pediatric literature over the last 20 years on efficacy and adverse events associated with the use of ibuprofen as analgesic in the pediatric population. Ibuprofen resulted effective in several pain conditions in children such as musculoskeletal pain, ear pain and acute otitis media, toothache and the inflammatory disease of the oral cavity and pharynx. The drug is a reasonable and efficacious alternative in postoperative pain, including tonsillectomy and adenoidectomy. It remains the treatment of choice for pain in chronic inflammatory diseases such as arthritis. Side effects and adverse events associated with ibuprofen are mild. It has the lowest gastrointestinal (GI) toxicity among NSAIDs, although some cases of GI toxicity may occur. Its renal effects are minimal, but dehydration plays an important role in triggering renal damage, so ibuprofen should not be given to patients with vomiting and diarrhea. Ibuprofen showed a good safety profile and provided evidence of effectiveness for mild-moderate pain of different origin in children. In case of fever or pain, the choice about the drug to be used should fall on ibuprofen in a clinical context where there is an inflammatory pathogenesis.

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400.

First experience with Tolvaptan for the treatment of neonates and infants with capillary leak syndrome after cardiac surgery.
Kerling A., Toka O., Ruffer A., Muller H., Habash S., Weiss C., Dittrich S., Moosmann J.
Embase
BMC Pediatrics. 19(1) (no pagination), 2019. Article Number: 57. Date of Publication: 12 Feb 2019.
[Article]
AN: 627106087
Background: Postoperative fluid management in critically ill neonates and infants with capillary leak syndrome (CLS) and extensive volume overload after cardiac surgery on cardiopulmonary bypass is challenging. CLS is often resistant to conventional diuretic therapy, aggravating the course of weaning from invasive ventilation, increasing length of stay on ICU and morbidity and mortality.
Method(s): Tolvaptan (TLV, vasopressin type 2 receptor antagonist) was used as an additive diuretic in neonates and infants with CLS after cardiac surgery. Retrospective analysis of 25 patients with CLS including preoperative and postoperative parameters was performed. Multivariate regression analysis was performed to identify predictors for TLV response.
Result(s): Multivariate analysis identified urinary output during 24 h after TLV administration and mean blood pressure (BP) on day 2 of TLV treatment as predictors for TLV response (AUC = 0.956). Responder showed greater weight reduction ($p < 0.0001$), earlier weaning from ventilator during TLV ($p = 0.0421$) and shorter time in the ICU after TLV treatment ($p = 0.0155$). Serum sodium and serum osmolality increased significantly over time in all patients treated with TLV.
Conclusion(s): In neonates and infants with diuretic-refractory CLS after cardiac surgery, additional aquaretic therapy with TLV showed an increase in urinary output and reduction in bodyweight in patients classified as TLV responder. Increase in urinary output and mean BP on day 2 of treatment were strong predictors for TLV response.

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401.

Outcomes following laparoscopic versus open surgery for pediatric inguinal hernia repair: Analysis using a national inpatient database in Japan.
Fujiogi M., Michihata N., Matsui H., Fushimi K., Yasunaga H., Fujishiro J.
Embase
Journal of Pediatric Surgery. 54(3) (pp 577-581), 2019. Date of Publication: March 2019.
[Article]
AN: 2000666057
Background: This study compared perioperative outcomes between laparoscopic surgery (LS) and open surgery (OS) for pediatric inguinal hernia repair, using a national inpatient database.
Method(s): Using the Diagnosis Procedure Combination database in Japan, we compared duration of anesthesia, postoperative complications, recurrence, and metachronous hernia (MH) between LS and OS for children undergoing inguinal hernia repair from July 2010 to March 2016. We used multivariable logistic regression analysis for postoperative complications and Cox regression analysis for recurrence.
Result(s): For 75,486 eligible patients (LS 20,186 vs. OS 55,300), the median follow-up was 815 (381-1350) days in LS and 1106 (576-1603) days in OS. The duration of anesthesia was significantly longer in LS than in OS for unilateral surgery (80 vs. 70 min, $p < 0.001$) but shorter for bilateral surgery (86 vs. 96 min, $p < 0.001$). LS had a lower proportion of MH than OS (0.3% vs. 3.4%, $p < 0.001$). There was no significant difference between LS and OS in complications (odds ratio: 0.55; 95% confidence interval: 0.22-1.38; $p = 0.20$) or recurrence (hazard ratio: 1.24; 95% confidence interval: 0.86-1.79; $p = 0.89$).
Conclusion(s): LS patients had lower proportions of MH than OS patients. Complications and recurrence did not differ significantly between LS and OS.
Type of Study: Retrospective study. Levels of evidence: Level III.

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402.

Sutureless versus sutured circumcision: A comparative study.
Raut A.
Embase
Urology Annals. 11(1) (pp 87-90), 2019. Date of Publication: January-March 2019.
[Article]
AN: 626091929
Introduction: Today is the era of 'wireless' in technology and here comes era of 'sutureless' in the field of surgery. Every surgeon wishes for better wound healing with better cosmesis without complications and early back to routine activities. All this is possible by use of adhesive for wound edges of circumcision is shown by us in this study. In addition, other aim was to study the efficacy, safety, functional outcome, and cosmesis of isoamyl cyanoacrylate when used as adhesive for wound edges of pediatric circumcisions.
Material(s) and Method(s): Group A comprised 162 pediatric patients who underwent sutureless circumcisions and Group B comprised a similar number, i.e., 162 pediatric patients who had undergone circumcision by conventional method using absorbable interrupted sutures. Comparative analysis of both the groups was done based on various parameters such as bleeding, infection, foreign body reaction, excessive swelling, and wound dehiscence. In addition, visual analog pain scoring was done after 6 h and after 12 h postoperative.
Result(s): Complications were more commonly seen in sutured Group B versus sutureless circumcision-Group A. In addition, postoperative pain and need of analgesics were seen more commonly in sutured Group B patients. Wound healing and final cosmesis were far better in Group A patients.
Conclusion(s): Our results show that isoamyl cyanoacrylate is comparatively safe, efficient, has better functional outcome and good cosmesis when used as adhesive for wound edges of pediatric circumcisions. Sutureless circumcision technique is better than conventional sutured circumcision.

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403.

Ropivacaine/Fentanyl vs. Bupivacaine/Fentanyl for Pain Control in Children after Thoracic Surgery: A Randomized Study.
Tomaszek L., Fenikowski D., Komotajtys H., Gawron D.
Embase

Pain management nursing : official journal of the American Society of Pain Management Nurses. 20(4) (pp 390-397), 2019. Date of Publication: 01 Aug 2019.
[Article]
AN: 627910841
BACKGROUND: Although bupivacaine remains a standard local anesthetic for postoperative epidural infusions in pediatric patients, it is increasingly being replaced with ropivacaine by many anesthesiologists. Ropivacaine is associated with less risk for cardiac and central nervous system toxicity. AIMS: The purpose of this study was to compare analgesic efficacy and adverse events of postoperative epidural analgesia with ropivacaine/fentanyl versus bupivacaine/fentanyl in children after the Ravitch procedure and thoracotomy. DESIGN: This was a prospective randomized controlled study. SETTINGS: This study was conducted at the Department of Thoracic Surgery of the Institute of Tuberculosis and Lung Diseases in Rabka Zdroj, Poland. PARTICIPANTS/SUBJECTS: 94 patients undergoing elective thoracic surgery.
METHOD(S): Patients aged 7-17 years were randomly allocated into a ropivacaine 0.2% (RF, n = 45) or bupivacaine 0.125% (BF, n = 45) group; 1 mL of each analgesic solution contained 5 mug fentanyl. All patients received acetaminophen and nonsteroidal anti-inflammatory drugs. Nurses assessed pain intensity and incidence of adverse events over 72 hours after surgery and modified analgesia if patient pain intensity was greater than 2 out of 10.
RESULT(S): There was no statistically significant difference in median pain scores and incidence of adverse events between the RF group and the BF group. The analgesia was excellent (median pain intensity scores at rest, during deep breathing, and when coughing was less than 1 out of 10 in all patients). Adverse events included incidents of desaturation (64/90), nausea (18/90), vomiting (31/90), pruritus (12/90), urinary retention (2/90), paresthesia (11/90), anisocoria (2/90), and Horner syndrome (2/90).
CONCLUSION(S): Thoracic epidural analgesia using an RF and BF solution resulted in similar pain relief and adverse event profiles.

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404.

Development of best practices to minimize wound complications after complex tethered spinal cord surgery: A modified Delphi study.
Alexiades N.G., Ahn E.S., Blount J.P., Brockmeyer D.L., Browd S.R., Grant G.A., Heuer G.G., Hankinson T.C., Iskandar B.J., Jea A., Krieger M.D., Leonard J.R., Limbrick D.D., Maher C.O., Proctor M.R., Sandberg D.I., Wellons J.C., Shao B., Feldstein N.A., Anderson R.C.E.
Embase
Journal of Neurosurgery: Pediatrics. 22(6) (pp 701-709), 2018. Date of Publication: December 2018.
[Article]

AN: 625580971
Objective: Complications after complex tethered spinal cord (cTSC) surgery include infections and cerebrospinal fluid (CSF) leaks. With little empirical evidence to guide management, there is variability in the interventions undertaken to limit complications. Expert-based best practices may improve the care of patients undergoing cTSC surgery. Here, authors conducted a study to identify consensus-driven best practices.
Method(s): The Delphi method was employed to identify consensual best practices. A literature review regarding cTSC surgery together with a survey of current practices was distributed to 17 board-certified pediatric neurosurgeons. Thirty statements were then formulated and distributed to the group. Results of the second survey were discussed during an inperson meeting leading to further consensus, which was defined as >= 80% agreement on a 4-point Likert scale (strongly agree, agree, disagree, strongly disagree).
Result(s): Seventeen consensus-driven best practices were identified, with all participants willing to incorporate them into their practice. There were four preoperative interventions: (1, 2) asymptomatic AND symptomatic patients should be referred to urology preoperatively, (3, 4) routine preoperative urine cultures are not necessary for asymptomatic AND symptomatic patients. There were nine intraoperative interventions: (5) patients should receive perioperative cefazolin or an equivalent alternative in the event of allergy, (6) chlorhexidine-based skin preparation is the preferred regimen, (7) saline irrigation should be used intermittently throughout the case, (8) antibiotic-containing irrigation should be used folsurlowing dural closure, (9) a nonlocking running suture technique should be used for dural closure, (10) dural graft overlay should be used when unable to obtain primary dural closure, (11) an expansile dural graft should be incorporated in cases of lipomyelomeningocele in which primary dural closure does not permit free flow of CSF, (12) paraxial muscles should be closed as a layer separate from the fascia, (13) routine placement of postoperative drains is not necessary. There were three postoperative interventions: (14) postoperative antibiotics are an option and, if given, should be discontinued within 24 hours; (15) patients should remain flat for at least 24 hours postoperatively; (16) routine use of abdominal binders or other compressive devices postoperatively is not necessary. One intervention was prioritized for additional study: (17) further study of additional gram-negative perioperative coverage is needed.
Conclusion(s): A modified Delphi technique was used to develop consensus-driven best practices for decreasing wound complications after cTSC surgery. Further study is required to determine if implementation of these practices will lead to reduced complications. Discussion through the course of this study resulted in the initiation of a multicenter study of gram-negative surgical site infections in cTSC surgery.

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405.

Practice variation on use of antibiotics: An international survey among pediatric urologists.
Kim J.K., Chua M.E., Ming J.M., Braga L.H., Smith G.H.H., Driver C., Koyle M.A.
Embase
Journal of Pediatric Urology. 14(6) (pp 520-524), 2018. Date of Publication: December 2018.
[Article]
AN: 2000802607
Introduction and background: Although there is abundance in literature focusing on the use of prophylactic antibiotics for adult urological procedures, the evidence for using antibiotics following common pediatric urological procedures is limited with no specific guidelines for use. Consequently, current practices on antibiotic usage for common interventions may be variable among practicing pediatric urologists, lacking evidence-based support.
Objective(s): The aim was to evaluate the current practice pattern on antibiotic usage for common interventions amongst pediatric urologists (PU) practicing in four English-speaking sectors of the world.
Material(s) and Method(s): An anonymous survey of five scenarios with multiple choice options was disseminated to all active practicing members of the Pediatric Urologist of Canada (PUC) and Society of Pediatric Urology of Australia and New Zealand (SPUNZA), as well as all those attending the 2016 British Association of Pediatric Urology (BAPU) and 2017 American Association of Pediatric Urology (AAPU) meetings. The response for each scenario was summarized for overall practice pattern variation and the pattern for each sector was compared using the Fisher exact test.
Result(s): A total of 126 respondents completed the survey (68.5% response rate) with at least a 65% response rate for each of the four sectors. The majority of respondents do not use antibiotics for indwelling urethral (46.8%) and suprapubic catheters (53.4%); however, they do give antibiotics for J-J stent placement (65.1%) and hypospadias surgery (84.9%), and use antibiotics after hypospadias surgery where catheters or stents are left indwelling (80.9%, 84.2%, respectively). Among those surveyed, the PUC members and AAPU PU demonstrated similar practice patterns which often significantly differed from that of SPUNZA members and BAPU

attendees. Specifically, a significantly larger proportion of the North American pediatric urologists do not use antibiotics for common procedures compared with Australia, New Zealand, and the UK (Table).
Discussion(s): In the absence of prospective studies in antibiotic use for pediatric patients to guide clinicians, there is a clear variability among sectors in the use of antibiotics for most clinical scenarios investigated. With increasing resistance patterns and possible adverse effects of antibiotics, it is important that the international pediatric urology community engage in discussions and collaborations to address this issue.
Conclusion(s): Practice patterns in antibiotic usage amongst PU varies widely, some of which may be associated with their local "culture." There is a need to understand these differences and begin to standardize treatment in the hopes of increasing appropriate use of antibiotics internationally. [Table presented]

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406.

Outcomes of externalized pyeloureteral versus internal ureteral stent in pediatric robotic-assisted laparoscopic pyeloplasty.
Chu D.I., Shrivastava D., Van Batavia J.P., Bowen D.K., Tong C.C., Long C.J., Weiss D.A., Shukla A.R., Srinivasan A.K.
Embase
Journal of Pediatric Urology. 14(5) (pp 450.e1-450.e6), 2018. Date of Publication: October 2018. [Article]
AN: 2000764942
Introduction: After pyeloplasty, urinary drainage options include internal double-J (DJ) ureteral stents or externalized pyeloureteral (EPU) stents, which can avoid bladder symptoms and additional anesthetic exposure from stent removal. Comparative outcome studies, however, are lacking following primary pediatric robotic-assisted laparoscopic pyeloplasty (RALP).
Objective(s): To compare operative success, operative time, hospitalization, and postoperative complications of EPU versus DJ stents following RALP. Study design: Consecutive children undergoing primary RALP from 10/2013 to 9/2015 were retrospectively identified. Data collected included patient demographics, stent type and duration, postoperative complications, and

operative success. To control for confounding by indication for EPU stent, propensity score weighting was used to balance baseline covariates. Weighted regression analyses compared between-group differences in study outcomes.
Result(s): At median follow-up of 12.3 months, 44 and 17 patients underwent DJ and EPU stenting, respectively. At baseline, DJ stent patients were older than EPU stent patients (median 7.7 vs 1.2 years, P = 0.01) and were less likely to be on postoperative antibiotic prophylaxis (25 vs 76%, P < 0.001). After weighting, these differences disappeared. All EPU stents were removed in the outpatient clinic; all DJ stents were removed under anesthesia. On weighted regression analyses (Summary Fig.), EPU stents had no different associations than DJ stents with operative success (95 vs 94%, between-group difference 1%, 95% CI -11, 13; P = 0.86), complications, or operative time, but did have 0.6 of a day more hospitalization (95% CI 0.04, 1.2; P = 0.04).
Discussion(s): Patients receiving EPU stents were different at baseline from those receiving DJ stents. After propensity score weighting balanced these covariates, EPU stents were associated with similar operative success, complications, and operative time to DJ stents. Further study is warranted in larger prospective cohorts.
Conclusion(s): Use of EPU stents provided a viable alternative, particularly in younger patients, to DJ stenting with comparable success and complications, while avoiding the need for an additional anesthetic.[Figure presented]

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29776869 [https://www.ncbi.nlm.nih.gov/pubmed/?term=29776869]
Status
Embase
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Publisher
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Year of Publication
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407.

Guidelines for Antenatal and Preoperative care in Cesarean Delivery: Enhanced Recovery After Surgery Society Recommendations (Part 1).
Wilson R.D., Caughey A.B., Wood S.L., Macones G.A., Wrench I.J., Huang J., Norman M., Pettersson K., Fawcett W.J., Shalabi M.M., Metcalfe A., Gramlich L., Nelson G.
Embase
American Journal of Obstetrics and Gynecology. 219(6) (pp 523.e1-523.e15), 2018. Date of Publication: December 2018.
[Article]
AN: 2001228388
This Enhanced Recovery After Surgery (ERAS) Guideline for perioperative care in cesarean delivery will provide best practice, evidenced-based, recommendations for preoperative, intraoperative, and postoperative phases with, primarily, a maternal focus. The focused pathway process for scheduled and unscheduled cesarean delivery for this ERAS Cesarean Delivery Guideline will consider from the time from decision to operate (starting with the 30-60 minutes before skin incision) to hospital discharge. The literature search (1966-2017) used Embase and PubMed to search medical subject headings that included "Cesarean Section," "Cesarean Section," "Cesarean Section Delivery" and all pre- and intraoperative ERAS items. Study selection allowed titles and abstracts to be screened by individual reviewers to identify potentially

relevant articles. Metaanalyses, systematic reviews, randomized controlled studies, nonrandomized controlled studies, reviews, and case series were considered for each individual topic. Quality assessment and data analyses that evaluated the quality of evidence and recommendations were evaluated according to the Grading of Recommendations, Assessment, Development and Evaluation system, as used and described in previous ERAS Guidelines. The ERAS Cesarean Delivery Guideline/Pathway has created a maternal focused pathway (for scheduled and unscheduled surgery starting from 30-60 minutes before skin incision to maternal discharge) with ERAS cesarean delivery consensus recommendations preoperative elements (anesthetic medications, fasting, carbohydrate supplementation, prophylactic antibiotics/skin preparation,), intraoperative elements (anesthetic management, maternal hypothermia prevention, surgical technique, hysterotomy creation and closure, management of peritoneum, subcutaneous space, and skin closure), perioperative fluid management, and postoperative elements (chewing gum, management of nausea and vomiting, analgesia, timing of food intake, glucose management, antithrombotic prophylaxis, timing of ambulation, urinary management, and timing of maternal and neonate discharge). Limited topics for optimized care and for antenatal education and counselling and the immediate neonatal needs at delivery are discussed. Strong recommendations for element use were given for preoperative (antenatal education and counselling, use of antacids and histamine, H2 receptor antagonists, 2-hour fasting and small meal within 6 hours surgery, antimicrobial prophylaxis and skin preparation/chlorhexidine-alcohol), intraoperative (regional anesthesia, prevention of maternal hypothermia [forced warm air, warmed intravenous fluids, room temperature]), perioperative (fluid management for euvolemia and neonatal immediate care needs that include delayed cord clamping), and postoperative (fluid management to prevent nausea and vomiting, antiemetic use, analgesia with nonsteroidal antiinflammatory drugs/paracetamol, regular diet within 2 hours, tight capillary glucose control, pneumatic compression stocking for venous thromboembolism prophylaxis, immediate removal of urinary catheter). Recommendations against the element use were made for preoperative (maternal sedation, bowel preparation), intraoperative (neonatal oral suctioning or increased inspired oxygen), and postoperative (heparin should not be used routinely venous thromboembolism prophylaxis). Because these ERAS cesarean delivery pathway recommendations (elements/processes) are studied, implemented, audited, evaluated, and optimized by the maternity care teams, this will create an opportunity for the focused and optimized areas of care research with further enhanced care and recommendation.

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Mosby Inc. (E-mail: customerservice@mosby.com)
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408.

Testis sparing surgery for small testicular masses and frozen section assessment.
Khan M.J., Bedi N., Rahimi M.N.C., Kalsi J.
Embase
Central European Journal of Urology. 71(3) (pp 304-309), 2018. Date of Publication: 2018.
[Article]
AN: 2001819994
Introduction We present our experience with patients who had suspected testicular masses, managed by a frozen section assessment and testicular sparing surgery. Material and methods We performed a retrospective review of all patients over the last 5 years, who underwent a frozen section assessment and testicular sparing surgery for small testicular lesions. The frozen section assessment was compared with the final histology. Results Twelve patients were identified. The mean age of patients was 40 years (22-58 years). The mean lesion size was 9.8 mm (3-18 mm). Presentations varied: a testicular lump was palpable in 7 patients and 3 patients were referred due to infertility with a subsequent ultrasound, which showed incidental testicular lesions. Two patients presented with testicular pain. Tumour marker levels were within the normal limits in all patients. The frozen section assessment correctly determined 10 out of 12 (83%) lesions, showing 1 (8%) lymphoma, 2 (17%) seminomas, 3 (25%) fibrosis, 3 (25%) low-grade Leydig cell tumours and 1 (8%) adenomatous tumour. The frozen section reported a benign epidermal cyst in 1 case, whilst the final histology showed a pre-pubertal type teratoma, a rare and low risk tumour. One patient (8%) had an indeterminate lesion, which proved to be a benign adenomatous tumour on final histology. All malignant cases were correctly identified. There was no malignancy in 9 out of 12 (75%) patients therefore they had testicular sparing surgery. Three patients had orchidectomy, two due to a seminoma and one due to an indeterminate lesion. One patient developed a postoperative haematoma requiring antibiotics but there were no other complications. Conclusions Our findings demonstrate that partial orchidectomy with a frozen section assessment is useful in small testicular masses and testicular sparing surgery can be considered in order to prevent a radical orchidectomy in selected patients.

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Year of Publication
2018

409.

Bacterial infections after liver transplantation in children: Single center study for 16 years.
Kim J.C., Kim S.J., Yun K.W., Choi E.H., Yi N.J., Suh K.S., Lee K.-W., Lee H.J.
Embase
Pediatric Infection and Vaccine. 25(2) (pp 82-90), 2018. Date of Publication: 01 Aug 2018.
[Article]
AN: 623707044
Purpose: Survival after liver transplantation (LT) has improved over the years, but infection is still a major complication. We aimed to identify the characteristics of bacterial infections in pediatric LT recipients.
Method(s): This study is a retrospective review of 189 consecutive children undergoing LT between 2000 and 2015 at a single center. In this study, the incidence of infection was determined for the following periods: within 1 month, between 1-5 months, and between 6-12 months. Patients who underwent liver transplants more than once or multiple organ transplants were excluded.
Result(s): All patients had received postoperative antibiotic for 3 days. Only the maintenance immunosuppression with oral tacrolimus and steroids were performed. As a result, 132 bacterial infections developed in 87 (46.0%) patients (0.70 events per person-year). Bacterial infections occurred most frequently within the first month (n=84, 63.6%) after LT. In the pathogens, Staphylococcus aureus (15.2%), Enterococcus species (15.2%), and Klebsiella species (13.6%) were most common. Regarding the organ infected, bloodstream was most common (n=39, 29.5%), followed by peritoneum (n=28, 21.2%), urinary tract (n=25, 18.9%), and lungs (n=20, 15.2%). We changed prophylactic antibiotics from ampicillin-sulbactam to piperacillin-tazobactam at 2011, October, there were no significant effects in the prevalence of antibiotics resistant bacterial infections. The 1-year mortality was 9.0% (n=17), in which 41.2% (n=7) was attributable to bacterial infection; septicemia (n=4), pneumonia (n=2), and peritonitis (n=1).
Conclusion(s): The incidence and type of bacterial infectious complications after LT in pediatric patients were similar to those of previous studies. Bacterial complications affecting mortality occur within 6 months after transplantation, so proper prophylaxis and treatment in this period may improve the prognosis of LT.

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Embase
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Publisher
The Korean Society of Pediatric Infectious Diseases (E-mail: kspid@kspid.or.kr)
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2018

410.

Analysis of the incidence and risk factors of male urinary tract infection following urodynamic study.
Huang Z., Xiao H., Li H., Yan W., Ji Z.
Embase
European Journal of Clinical Microbiology and Infectious Diseases. 36(10) (pp 1873-1878), 2017. Date of Publication: 01 Oct 2017.
[Article]
AN: 616606121
The purpose of this study was to investigate the incidence and risk factors of male urinary tract infection (UTI) after urodynamic study (UDS). A total of 854 consecutive male patients, who underwent UDS at Peking Union Medical College Hospital from January 2010 to March 2016, were recruited in this study. Two to four weeks before the examination, urinalysis with bacterial culture was performed. Patients with negative results were selected for UDS. Immediately before the examination, urinalysis was repeated to rule out any preoperative UTI. Between 48 and 72 h after the exam, urine culture was performed again to determine the incidence of UTI. The incidence of UTI and patients' baseline characteristics, including age, medical history, urodynamic parameters, current diagnosis and pathogen type, were analyzed. Among the 854 patients undergoing UDS, urinary infection was found in 84 cases after the examination, the incidence was 9.83%. Comorbidity with diabetes, post void residual (PVR), volume of prostate (Vp), and two urodynamic parameters, maximal flow rate (Qmax) and average flow rate (Qav) were found to be the independent risk factors for UTI after UDS. The most common pathogens were Escherichia coli (54.76%) and Enterococcus faecalis (19.05%). The incidence of UTI after UDS in male patients was 9.83%. Patients who suffered from comorbidity of diabetes, high PVR, high Vp, low Qmax or Qav may need to be treated with prophylactic antibiotics to prevent postoperative UTI.

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Publisher
Springer Verlag (E-mail: service@springer.de)
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411.

18th Annual Hernia Repair.
Anonymous
Embase
Hernia. Conference: 18th Annual Hernia Repair. Cancun Mexico. 21(1 Supplement) (no pagination), 2017. Date of Publication: 2017.
[Conference Review]
AN: 615259571

The proceedings contain 264 papers. The topics discussed include: laparoscopic, non-mesh, high ligation works in children: is it ever appropriate for adults?; the best open posterior repair; rationing inguinal hernia repair. managing the wait list; critical steps for paraesophageal repair success; absorbable and biologic mesh augmentation; contaminated incisional hernia repair: staged repair; data on absorbable mesh reinforcement; contaminated incisional hernia repair: synthetic mesh is the standard; planning the incision; repair of rectus diastasis with an associated hernia; seroma prevention and management: a plastic surgeon's perspective; tissue engineering and abdominal wall surgery: prototype bioprosthesis; the role of prophylactic mesh augmentation in preventing incisional hernia: a systematic review and meta-analysis; transversus abdominis muscle positioning and abdominal wall muscle mass following posterior component separation herniorrhaphy; an evidence based approach to postoperative prophylactic antibiotic use following ventral hernia repair: systematic review and meta-analysis; multicenter observational study of ventral hernia formation after open- and laparoscopic surgery for colorectal cancer; and abdominal wall reconstruction and long-term resorbable matrix mesh: closing the gap on recurrence, pain and quality of life.
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CONFERENCE ABSTRACT
Publisher
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412.

Bowel preparation prior to reconstructive urologic surgery in pediatric myelomeningocele patients.
Farber N.J., Davis R.B., Grimsby G.M., Shinder B., Cannon G.M., Jacobs M.A., Ost M.C., Schneck F.X., Stephany H.A., Gargollo P.C., Dwyer M.E.
Embase
The Canadian journal of urology. 24(5) (pp 9038-9042), 2017. Date of Publication: 01 Oct 2017.
[Article]
AN: 621894859
RESULTS: Eighty patients with myelomeningocele were identified; 70 patients underwent MBP while 10 patients did not. There were no statistically significant differences in demographics or operative time. There were no statistically significant differences in postoperative outcomes including time to first bowel movement and time to tolerating diet. There was also no significant difference in overall complication rate; patients with MBP had 31/70 (44%) complications while 2/10 (20%) of those without MBP had complications (p = 0.18). CONCLUSION: There was no significant difference in perioperative measures and postoperative complications for patients who did not receive a mechanical bowel preparation. Our findings indicate that it is safe and warranted to perform a prospective, randomized study to better characterize the risks and benefits of preoperative bowel preparation for patients with myelomeningocele.
INTRODUCTION: Mechanical bowel preparation (MBP) has historically been the standard of care for patients undergoing reconstructive urologic surgery, including urinary diversion. To date, several studies have examined the role of mechanical bowel preparation in postoperative outcomes in pediatric patients undergoing augmentation cystoplasty. However, these patient populations have been heterogeneous in nature, with no studies dedicated to examining the role of MBP prior to reconstructive urologic surgery in pediatric patients with myelomenginoceles. Thus, our objective was to retrospectively assess perioperative measures and postoperative complications after reconstructive urologic surgery with or without mechanical bowel preparation in pediatric myelomeningocele patients.
MATERIALS AND METHODS: From 2008 to 2013, 80 patients with myelomeningocele underwent reconstructive urologic surgery involving the use of bowel. Seventy patients underwent

a preoperative MBP while 10 did not. Perioperative measures and postoperative complications for these two cohorts were assessed.
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28971794 [https://www.ncbi.nlm.nih.gov/pubmed/?term=28971794]
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Year of Publication
2017

413.

Arthroplasty-center related retrospective analysis of risk factors for Periprosthetic Joint Infection after primary and after revision Total Hip Arthroplasty.
Radtke K, Tetzlaff T, Vaske B, Ettinger M, Claasen L, Florkemeier T, Windhagen H, Lewinski Gv
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Technology & Health Care. 24(5):721-8, 2016 Sep 14.
[Journal Article]
UI: 27105139
BACKGROUND: Periprosthetic Joint Infection (PJI) poses a great challenge to patients, surgeons and health care systems. Comorbid diseases and patient-related risk factors are poorly understood.
OBJECTIVE: The purpose of this study was to evaluate patient-related risk factors for PJI after primary and after revision Total Hip Arthroplasty (THA).
METHODS: In the present study, data was collected from 566 patients who underwent primary or revision THA between July 2011 and June 2012 in an established arthroplasty center (Endocert certified endoprosthesis center, EPZmax). The effects of demographic data and comorbid diseases on revision operations within 18 months following THA were analyzed using descriptive and explorative statistics.
RESULTS: It was shown, that alcohol abuse, depression, preoperative ESBL (Extended Spectrum s-Lactamase bacteria) infection, elevated preoperative serum-CRP (C-reactive protein), extended operation-time, extended length of hospital-stay, intraoperative complications, perioperative urinary tract infections and postoperative antibiotic therapy are significantly related to PJI in primary THA.
CONCLUSIONS: Comorbid diseases seem to influence outcome after THA. They are important for predicting revision operations and implant survival. In severe high-risk cases, they can lead to perform the operation under precaution or to avoid performing the operation entirely. This should reduce PJI occurrences in future.
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1
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Year of Publication
2016

414.

The burden of clostridium difficile afte cervical spine surgery.
Guzman J.Z., Skovrlj B.B., Rothenberg E.S., Lu Y., McAnany S., Cho S.K., Hecht A.C., Qureshi S.A.
Embase
Global Spine Journal. 6(4) (pp 314-321), 2016. Date of Publication: 01 Jul 2016.
[Article]
AN: 605621008
Study Design Retrospective database analysis Objective The purpose of this study is to investigate incidence, comorbidities, and impact on health care resources of Clostridium difficile infection after cervical spine surgery. Methods A total of 1,602,130 cervical spine surgeries from the Nationwide Inpatient Sample database from 2002 to 2011 were included. Patients were included for study based on International Classification of Diseases Ninth Revision, Clinical Modification procedural codes for cervical spine surgery for degenerative spine diagnoses. Baseline patient characteristics were determined. Multivariable analyses assessed factors associated with increased incidence of C. difficile and risk of mortality. Results Incidence of C. difficile infection in postoperative cervical spine surgery hospitalizations is 0.08%, significantly increased since 2002 ($p < 0.0001$). The odds of postoperative C. difficile infection were significantly increased in patients with comorbidities such as congestive heart failure, renal failure, and perivascular disease Circumferential cervical fusion (odds ratio [OR] 2.93, $p < 0.0001$) increased the likelihood of developing C. difficile infection after degenerative cervical spine surgery. C. difficile infection after cervical spine surgery results in extended length of stay ($p < 0.0001$) and increased hospital costs ($p < 0.0001$). Mortality rate in patients who develop C. difficile after cervical spine surgery is nearly 8% versus 0.19% otherwise ($p < 0.0001$). Moreover, multivariate analysis revealed C. difficile to be a significant predictor of inpatient mortality (OR 3.99, $p < 0.0001$). Conclusions C. difficile increases the risk of in-hospital mortality and costs approximately $6,830,695 per year to manage in patients undergoing elective cervical spine surgery. Patients with comorbidities such as renal failure or congestive heart failure have increased probability of developing infection after surgery. Accepted antibiotic guidelines in this population must be followed to decrease the risk of developing postoperative C. difficile colitis.

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Publisher
Thieme Medical Publishers, Inc. (E-mail: custserv@thieme.com)
Year of Publication

2016

415.

Incidence, microbiological profile of nosocomial infections, and their antibiotic resistance patterns in a high volume Cardiac Surgical Intensive Care Unit.
Sahu M., Siddharth B., Choudhury A., Vishnubhatla S., Singh S., Menon R., Kapoor P., Talwar S., Choudhary S., Airan B.
Embase
Annals of Cardiac Anaesthesia. 19(2) (pp 281-287), 2016. Date of Publication: April-June 2016.
[Article]
AN: 610224693
Background: Nosocomial infections (NIs) in the postoperative period not only increase morbidity and mortality, but also impose a significant economic burden on the health care infrastructure. This retrospective study was undertaken to (a) evaluate the incidence, characteristics, risk factors and outcomes of NIs and (b) identify common microorganisms responsible for infection and their antibiotic resistance profile in our Cardiac Surgical Intensive Care Unit (CSICU).
Patients and Methods: After ethics committee approval, the CSICU records of all patients who underwent cardiovascular surgery between January 2013 and December 2014 were reviewed retrospectively. The incidence of NI, distribution of NI sites, types of microorganisms and their antibiotic resistance, length of CSICU stay, and patient.outcome were determined.
Result(s): Three hundred and nineteen of 6864 patients (4.6%) developed NI after cardiac surgery. Lower respiratory tract infections (LRTIs) accounted for most of the infections (44.2%) followed by surgical.site infection (SSI, 11.6%), bloodstream infection (BSI, 7.5%), urinary tract infection (UTI, 6.9%) and infections from combined sources (29.8%). Acinetobacter, Klebsiella, Escherichia coli, and Staphylococcus were the most frequent pathogens isolated in patients with LRTI, BSI, UTI, and SSI, respectively. The Gram.negative bacteria isolated from different sources were found to be highly resistant to commonly used antibiotics.
Conclusion(s): The incidence of NI and sepsis.related mortality, in our CSICU, was 4.6% and 1.9%, respectively. Lower respiratory tract was the most common site of infection and Gram.negative bacilli, the most common pathogens after cardiac surgery. Antibiotic resistance was maximum with Acinetobacter spp.

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Publisher
Medknow Publications (B9, Kanara Business Centre, off Link Road, Ghatkopar (E), Mumbai 400 075, India)
Year of Publication
2016

416.

Minimally invasive open nephrectomy on children with multicystic dysplastic kidney.
Feng D., Zhu X., Sun F., Ma T., Li Y., Chen S.
Embase
Experimental and Therapeutic Medicine. 12(6) (pp 3575-3578), 2016. Date of Publication: December 2016.
[Article]
AN: 613363717
The aim of the study was to summarize the preliminary experience of minimally invasive open nephrectomy operation on children with multicystic dysplastic kidney (MCDK). A retrospective review was performed on the clinical materials of the 15 children that had accepted consecutive minimally invasive open nephrectomies during the previous 2 years. The enrolled children were diagnosed with unilateral MCDK under computed tomography,emission computerized tomography and ultrasound and no anomaly in the contralateral functioning kidney was found. Of the 15 children,12 were boys and 3 were girls,with 5 cases on the right and 10 cases on the left. Operations were completed at the retroperitoneal space in order to open an incision on the waists and ribs of the children,the length of which ranged from 1.5 to 2.0 cm (average 1.7 cm). The age of the children at operation ranged from 3 months to 5.6 years old,with an average of 2.4 years old. Surgery lasted for 30-50 min,with an average of 34.6 min. The estimated blood loss of each child was <5 ml. After operation,prophylactic intravenous antibiotics were administered for 2-4 days to prevent infection. All of the operations proved very successful. Following surgery the children were hospitalized for 2-4 days for observation,with an average of 2.8 days. No complications occurred during the follow-up period. In conclusion,minimally invasive open nephrectomy is effective for children with MCDK. The procedure is superior with regard to operative time,cosmesis,and length of stay. It is a safe and effective treatment choice for patietns with MCDK and can be easily performed on children.

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Publisher
Spandidos Publications (10 Vriaxidos Street, Athens 116 10, Greece)
Year of Publication
2016

417.

Do we need antibiotic prophylaxis in endoscopic inguinal hernia repair? Results of the Herniamed Registry.
Kockerling F, Bittner R, Jacob D, Schug-Pass C, Laurenz C, Adolf D, Keller T, Stechemesser B
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Surgical Endoscopy. 29(12):3741-9, 2015 Dec.
[Comparative Study. Evaluation Study. Journal Article. Research Support, Non-U.S. Gov't]
UI: 25786905

INTRODUCTION: The use of antibiotic prophylaxis in inguinal hernia repair is a controversial issue. Accepted randomized controlled trials or registry data with specific analysis of endoscopic repaired patients do not exist.
PATIENT AND METHODS: The data presented in this study compared the prospectively collected data from the Herniamed Registry on all patients who had undergone unilateral, bilateral or recurrent repair of inguinal hernias using either endoscopic or open techniques between September 1, 2009, and March 5, 2014. In total, 85,033 patients were enrolled. Of these patients, 48,201 (56.7) had an endoscopic and 36,832 (43.3%) an open repair. The target variables analyzed were impaired wound healing and deep infections with mesh involvement within 30 days after the operation.
RESULTS: Analysis of the patient group with endoscopic/laparoscopic inguinal hernia repair (n = 48,201) did not identify any significant influence of antibiotic prophylaxis on postoperative impaired wound healing, which occurred in 53 cases (p = 0.6431). Nor was it possible to identify any significant impact of antibiotic prophylaxis on the deep infections seen in 27 cases (p = 0.8409). Analysis of the open inguinal hernia repair group revealed that, unlike the laparoscopic/endoscopic group, antibiotic prophylaxis had a significant impact on the postoperative impaired wound healing and deep infection rates. The risk of postoperative impaired wound healing with antibiotic prophylaxis was significantly lower [OR 0.677 (0.479; 0.958), p = 0.027].
CONCLUSION: The positive impact of the endoscopic/laparoscopic technique on avoidance of impaired wound healing and deep infections with mesh involvement is already so great that antibiotic prophylaxis has no additional benefit. In contrast, antibiotic prophylaxis should be administered for open inguinal hernia repair.
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1
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PMID
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4648957
Year of Publication
2015

418.

Post-surgical infections and perioperative antibiotics usage in pediatric genitourinary procedures.
Ellett J., Prasad M.M., Purves J.T., Stec A.A.
Embase
Journal of Pediatric Urology. 11(6) (pp e1-358), 2015. Date of Publication: 2015.
[Article]
AN: 605693773
Background Post-surgical infections (PSIs) are a source of preventable perioperative morbidity. No guidelines exist for the use of perioperative antibiotics in pediatric urologic procedures. Objective This study reports the rate of PSIs in non-endoscopic pediatric genitourinary procedures at our institution. Secondary aims evaluate the association of PSI with other perioperative variables, including wound class (WC) and perioperative antibiotic administration. Study design Data from consecutive non-endoscopic pediatric urologic procedures performed between August 2011 and April 2014 were examined retrospectively. The primary outcome was the rate of PSIs. PSIs were classified as superficial skin (SS) and deep/organ site (D/OS) according to Centers for Disease Control and Prevention guidelines, and urinary tract infection (UTI). PSIs were further stratified by WC1 and WC2 and perioperative antibiotic usage. A relative risk and chi-square analysis compared PSI rates between WC1 and WC2 procedures. Results A total of 1185 unique patients with 1384 surgical sites were reviewed; 1192 surgical sites had follow-up for inclusion into the study. Ten total PSIs were identified, for an overall infection rate of 0.83%. Of these, six were SS, one was D/OS, and three were UTIs. The PSI rate for WC1 (885 sites) and WC2 (307 sites) procedures was 0.34% and 2.28%, respectively, $p < 0.01$. Relative risk of infection in WC2 procedures was 6.7 (CI 1.75-25.85, $p = 0.0055$). The rate of infections in WC1 procedures was similar between those receiving and not receiving perioperative antibiotics (0.35% vs. 0.33%). All WC2 procedures received antibiotics. Discussion Post-surgical infections are associated with significant perioperative morbidity. In some studies, PSI can double hospital costs, and contribute to hospital length of stay, admission to intensive care units, and impact patient mortality. Our study demonstrates that the rate of PSI in WC1 operations is low, irrespective of whether the patient received perioperative antibiotics (0.35%) or no antibiotics (0.33%). WC2 operations were the larger source of morbidity with an infection rate of 2.28% and a 6.7 fold higher increase in relative risk. Conclusions WC1 procedures have a rate of infection around 0.3%, which is independent of the use of perioperative antibiotics. WC2 procedures have a higher rate of infection, with a relative risk of 6.7 for the development of PSI, and should be the target of guidelines for periprocedural prophylaxis.

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Embase
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Year of Publication
2015

419.

The use of chewing gum postoperatively in pediatric scoliosis patients facilitates an earlier return to normal bowel function.
Jennings J.K., Doyle J.S., Gilbert S.R., Conklin M.J., Khoury J.G.

Embase
Spine Deformity. 3(3) (pp 263-266), 2015. Date of Publication: 01 May 2015.
[Article]
AN: 604208073
Purpose In surgical correction of scoliosis in pediatric patients, gastrointestinal complications including postoperative ileus can result in extended hospital stays, poorer pain management, slower progression with physical therapy, and overall decreased patient satisfaction. In patients undergoing gastrointestinal, gynecological, and urological surgery, gum chewing has been shown to reduce time to flatus and passage of feces. The authors hypothesized that chewing gum could also speed return to normal bowel function in pediatric patients undergoing surgical correction of scoliosis. Methods The researchers obtained institutional review board approval for a prospective, randomized, controlled trial. Eligible patients included all adolescent idiopathic scoliosis patients undergoing posterior spinal fusion. Exclusion criteria included previous gastrointestinal surgery or preexisting gastrointestinal disease. Patients were randomized by coin flip. The treatment group chewed sugar-free bubble gum 5 times a day for 20 to 30 minutes beginning on postoperative day 1; the control group did not chew gum. Patients were asked a series of questions regarding subjective gastrointestinal symptoms each day. Time to flatus and first passage of feces were recorded as indicators of return to normal bowel function. Normality of data was assessed using normal probability plots. Results A total of 83 patients completed the study (69 females and 14 males; mean age, 14.4 years). Of the 42 patients in the chewing gum group, 8 elected to stop chewing gum regularly before discharge for to a variety of reasons. Patients who chewed gum experienced first bowel movement on average 145.9 hours after surgery, 30.9 hours before those who did not chew gum (p =.04). Gum-chewing patients first experienced flatus an average of 55.2 hours after surgery, compared with 62.3 hours for controls. This trend did not reach statistical significance (p =.12). No difference was noted in duration of hospital stay, medications administered as required, or subjective symptoms. Conclusion Chewing gum after posterior spinal fusion for scoliosis is safe and may speed return of normal bowel function. Chewing gum after surgical correction of scoliosis facilitates an earlier return to normal bowel function, which may improve patient satisfaction in the early postoperative period.

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Publisher
Elsevier Inc. (E-mail: usjcs@elsevier.com)
Year of Publication
2015

420.

Clinical outcomes after ureteroscopic lithotripsy in patients who initially presented with urosepsis: matched pair comparison with elective ureteroscopy.
Youssef RF, Neisius A, Goldsmith ZG, Ghaffar M, Tsivian M, Shin RH, Cabrera F, Ferrandino MN, Scales CD, Preminger GM, Lipkin ME
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Journal of Endourology. 28(12):1439-43, 2014 Dec.
[Journal Article]

UI: 25479184
BACKGROUND AND PURPOSE: The outcomes of ureteroscopy (URS) after urgent decompression and antibiotics for patients who initially present with urosepsis because of obstructive urolithiasis have not been previously evaluated. The aim of this study was to compare the outcomes and complications of URS in patients with a recent history of sepsis with those without sepsis.
METHODS: The study included 138 patients who underwent URS for stone removal from January 2004 to September 2011 at a university medical center. A matched-pair analysis was performed using three parameters (age, sex, and race) to compare outcomes and complications between 69 patients who had sepsis vs a matched cohort who did not have sepsis before URS.
RESULTS: The study included 138 patients, 88 (64%) females and 50 (36%) males with a median age of 57.5 years (range 18-88 years). Patients with previous sepsis had similar patient characteristics and stone-free rates (81% vs 77%) compared with patients without previous sepsis (P>0.05). Patients with previous sepsis, however, had a significantly higher complications rate (20% vs 7%), longer hospital length of stay (LOS), and longer courses of postoperative antibiotics after URS (P<0.05). Sepsis developed postoperatively in two patients with diabetes (one with and one without previous sepsis), and postoperative fever developed in five patients with previous sepsis.
CONCLUSIONS: URS after decompression for urolithiasis-related sepsis has similar success but higher complication rates, greater LOS, and longer course of postoperative antibiotics. This is important in counseling patients who present for definitive URS after urgent decompression for urolithiasis-related sepsis.
Version ID
1
Status
MEDLINE
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Comments
Comment in (CIN) Comment in (CIN)
Year of Publication
2014

421.

The role of preoperative prophylactic antibiotics in hypospadias repair.
Baillargeon E, Duan K, Brzezinski A, Jednak R, El-Sherbiny M
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Canadian Urological Association Journal. 8(7-8):236-40, 2014 Jul.
[Journal Article]
UI: 25210545
INTRODUCTION: We sought to determine whether the use of preoperative antibiotics is effective in reducing postoperative wound infections and urinary tract infections (UTI) in hypospadias repair.
METHODS: We retrospectively reviewed all hypospadias repairs performed at the Montreal Children's Hospital between March 2009 and September 2012. All types of primary hypospadias

repairs and redo cases were included. Patients with no adequate follow-up or with missing records of antibiotics were excluded. Preoperative antibiotics were given in the form of cefazolin (50 mg/kg intravenously) when appropriate. Postoperative oral antibiotics were administered as decided by the pediatric urologist. Primary outcomes included postoperative wound infection and UTI. Secondary outcomes included the need for reoperation of hypospadias due to urethrocutaneous fistula, meatal stenosis, urethral stricture and wound dehiscence.
RESULTS: In total, 157 cases of hypospadias repair were reviewed; of these 7 were excluded due to lack of follow-up. Of the remaining 150 patients, 62 received preoperative antibiotics and 88 did not. The groups were well-matched for age, hypospadias characteristics, type of repair and repair of curvature. The group that received preoperative antibiotics had a significantly higher number of stented cases (82% vs. 52% of the non-preoperative antibiotic group). Two cases of wound infection were reported (1 in the pre-operative antibiotic group and 1 in the non-preoperative antibiotic group). There was no symptomatic UTI or culture-demonstrated UTI in either group. Moreover, there was no statistically significant difference between the 2 groups in terms of primary outcomes. The complication rate was 11% (17/150 repairs) and all patients needed reoperation. This study's important limitations include the rarity of studied end points combined with the small sample and the retrospective nature of our study.
CONCLUSION: Our findings do not support the routine use of preoperative antibiotics in hypospadias repair.
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1
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Year of Publication
2014

422.

International clinical practice guidelines for the treatment and prophylaxis of venous thromboembolism in patients with cancer.
Farge D., Debourdeau P., Beckers M., Baglin C., Bauersachs R.M., Brenner B., Brilhante D., Falanga A., Gerotzafias G.T., Haim N., Kakkar A.K., Khorana A.A., Lecumberri R., Mandala M., Marty M., Monreal M., Mousa S.A., Noble S., Pabinger I., Prandoni P., Prins M.H., Qari M.H., Streiff M.B., Syrigos K., Bounameaux H., Buller H.R.
Embase
Journal of Thrombosis and Haemostasis. 11(1) (pp 56-70), 2013. Date of Publication: January 2013.
[Article]
AN: 368211330
Background:Guidelines addressing the management of venous thromboembolism (VTE) in cancer patients are heterogeneous and their implementation has been suboptimal worldwide.

Objective(s):To establish a common international consensus addressing practical, clinically relevant questions in this setting.
Method(s):An international consensus working group of experts was set up to develop guidelines according to an evidence-based medicine approach, using the GRADE system.
Result(s):For the initial treatment of established VTE: low-molecular-weight heparin (LMWH) is recommended [1B]; fondaparinux and unfractionated heparin (UFH) can be also used [2D]; thrombolysis may only be considered on a case-by-case basis [Best clinical practice (Guidance)]; vena cava filters (VCF) may be considered if contraindication to anticoagulation or pulmonary embolism recurrence under optimal anticoagulation; periodic reassessment of contraindications to anticoagulation is recommended and anticoagulation should be resumed when safe; VCF are not recommended for primary VTE prophylaxis in cancer patients [Guidance]. For the early maintenance (10days to 3months) and long-term (beyond 3months) treatment of established VTE, LMWH for a minimum of 3months is preferred over vitamin K antagonists (VKA) [1A]; idraparinux is not recommended [2C]; after 3-6months, LMWH or VKA continuation should be based on individual evaluation of the benefit-risk ratio, tolerability, patient preference and cancer activity [Guidance]. For the treatment of VTE recurrence in cancer patients under anticoagulation, three options can be considered: (i) switch from VKA to LMWH when treated with VKA; (ii) increase in LMWH dose when treated with LMWH, and (iii) VCF insertion [Guidance]. For the prophylaxis of postoperative VTE in surgical cancer patients, use of LMWH o.d. or low dose of UFH t.i.d. is recommended; pharmacological prophylaxis should be started 12-2h preoperatively and continued for at least 7-10days; there are no data allowing conclusion that one type of LMWH is superior to another [1A]; there is no evidence to support fondaparinux as an alternative to LMWH [2C]; use of the highest prophylactic dose of LMWH is recommended [1A]; extended prophylaxis (4weeks) after major laparotomy may be indicated in cancer patients with a high risk of VTE and low risk of bleeding [2B]; the use of LMWH for VTE prevention in cancer patients undergoing laparoscopic surgery may be recommended as for laparotomy [Guidance]; mechanical methods are not recommended as monotherapy except when pharmacological methods are contraindicated [2C]. For the prophylaxis of VTE in hospitalized medical patients with cancer and reduced mobility, we recommend prophylaxis with LMWH, UFH or fondaparinux [1B]; for children and adults with acute lymphocytic leukemia treated with l-asparaginase, depending on local policy and patient characteristics, prophylaxis may be considered in some patients [Guidance]; in patients receiving chemotherapy, prophylaxis is not recommended routinely [1B]; primary pharmacological prophylaxis of VTE may be indicated in patients with locally advanced or metastatic pancreatic [1B] or lung [2B] cancer treated with chemotherapy and having a low risk of bleeding; in patients treated with thalidomide or lenalidomide combined with steroids and/or chemotherapy, VTE prophylaxis is recommended; in this setting, VKA at low or therapeutic doses, LMWH at prophylactic doses and low-dose aspirin have shown similar effects; however, the efficacy of these regimens remains unclear [2C]. Special situations include brain tumors, severe renal failure (CrCl<30mLmin-1), thrombocytopenia and pregnancy. Guidances are provided in these contexts.
Conclusion(s):Dissemination and implementation of good clinical practice for the management of VTE, the second cause of death in cancer patients, is a major public health priority.
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Blackwell Publishing Ltd (9600 Garsington Road, Oxford OX4 2XG, United Kingdom)
Year of Publication
2013

423.

Is there a role for prophylactic antibiotics after stented hypospadias repair?.
Kanaroglou N., Wehbi E., Alotay A., Bagli D.J., Koyle M.A., Lorenzo A.J., Farhat W.A.
Embase
Journal of Urology. 190(4 SUPPL) (pp 1535-1539), 2013. Date of Publication: October 2013.
[Article]

AN: 52742817
Purpose Data are lacking on prophylactic oral antibiotic use in stented hypospadias repair cases. We evaluated the role of prophylactic oral antibiotics for preventing symptomatic urinary tract infections in this population. Materials and Methods We reviewed consecutive patients treated with stented primary/redo hypospadias repair by a single surgeon from September 2009 to January 2012. All patients received antibiotics upon induction. Before April 1, 2011, patients also received prophylactic oral antibiotics while stented. They were compared to those who underwent surgery after April 1, who received no prophylactic oral antibiotics. The primary outcome was symptomatic urinary tract infections, as captured from patient records and verified by an electronic cross-check of ICD-10 codes. Secondary outcomes included cellulitis, fistula, dehiscence and meatal stenosis. Results Of the 161 patients reviewed 11 were unstented and 1 underwent followup elsewhere. Of the remaining 149 patients 78 received prophylactic oral antibiotics and 71 did not. The groups were well matched for age, hypospadias characteristics, surgical technique and stent duration. Median followup was 17 months (range 0.2 to 33). No culture proven, symptomatic urinary tract infections developed in either group. One patient in the prophylactic group was treated for cellulitis by the pediatrician. The complication rate, including redo cases, was 18.2% in the prophylactic group and 15.3% in the nonprophylactic group (p = 0.8). Conclusions When postoperative prophylactic oral antibiotics were not administered, we identified no increased incidence of symptomatic urinary tract infections or complications. Our data suggest that prophylactic oral antibiotics may not be needed in cases of stented hypospadias repair. This study contributes to the growing body of evidence supporting the rational use of antimicrobials. It can potentially serve as a basis for a prospective, multicenter, randomized study. © 2013 by American Urological Association Education And Research, Inc.
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Embase
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Publisher
Elsevier Inc. (360 Park Avenue South, New York NY 10010, United States)
Year of Publication
2013

424.

The modern staged repair of classic bladder exstrophy: A detailed postoperative management strategy for primary bladder closure.
Stec A.A., Baradaran N., Schaeffer A., Gearhart J.P., Matthews R.I.
Embase
Journal of Pediatric Urology. 8(5) (pp 549-555), 2012. Date of Publication: October 2012.
[Article]
AN: 51717633
Purpose: Successful primary bladder closure of classic bladder exstrophy sets the stage for development of adequate bladder capacity and eventual voided continence. The postoperative pathway following primary bladder closure at the authors' institution is quantitatively and qualitatively detailed.
Material(s) and Method(s): Sixty-five consecutive newborns (47 male) undergoing primary closure of classic bladder exstrophy were identified and data were extracted relating to immediate postoperative care. Overall success rate was utilized to validate the pathway.

Result(s): Mean age at time of primary closure was 4.6 days and mean hospital stay was 35.8 days. Osteotomy was performed in 19 patients (mean age 8.8 days), and was not required in 39 infants (mean age 2.9 days). All patients were immobilized for 4 weeks. Tunneled epidural analgesia was employed in 61/65 patients. All patients had ureteral catheters and a suprapubic tube, along with a comprehensive antibiotic regimen. Postoperative total parenteral nutrition was commonly administered, and enteral feedings started around day 4.6. Our success rate of primary closure was 95.4%.
Conclusion(s): A detailed and regimented plan for bladder drainage, immobilization, pain control, nutrition, antimicrobial prophylaxis, and adequate healing time is a cornerstone for the postoperative management of the primary closure of bladder exstrophy. ©2011 Journal of Pediatric Urology Company. ©2011 Journal of Pediatric Urology Company.
PMID
22094235 [https://www.ncbi.nlm.nih.gov/pubmed/?term=22094235]
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Embase
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Publisher
Elsevier Ltd (Langford Lane, Kidlington, Oxford OX5 1GB, United Kingdom)
Year of Publication
2012

425.

Antibiotic prophylaxis before surgery vs after cord clamping in elective cesarean delivery: a double-blind, prospective, randomized, placebo-controlled trial.
Witt A, Doner M, Petricevic L, Berger A, Germann P, Heinze G, Tempfer C
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Archives of Surgery. 146(12):1404-9, 2011 Dec.
[Comparative Study. Journal Article. Randomized Controlled Trial]
UI: 22184305
CONTEXT: Perioperative antibiotic prophylaxis during elective cesarean delivery at term to reduce postoperative maternal infectious morbidity is generally used but may not be effective on the basis of the available data. Also, the optimal timing of prophylactic antibiotic administration is unclear.
OBJECTIVE: To compare the effectiveness of cefazolin administered before skin incision vs cefazolin administered after umbilical cord clamping vs placebo in a 3-arm randomized trial. The primary objective of the study was to compare postoperative infectious morbidity, defined as wound infection, endometritis, or urinary tract infection (primary end point), in women with cefazolin vs placebo. The comparison between the 2 arms administering cefazolin before skin incision vs after umbilical cord clamping was a secondary end point.
DESIGN: Double-blind, prospective, randomized, placebo-controlled trial.
SETTING: The Department of Obstetrics and Gynecology, Medical University of Vienna, Vienna, Austria.
PATIENTS: We recruited 1112 women undergoing elective cesarean delivery at term from March 1, 2004, through January 31, 2010.

INTERVENTIONS: In group 1, cefazolin (2 g) was administered 20 to 30 minutes before skin incision. In group 2, cefazolin (2 g) was administered immediately after clamping of the cord. In group 3, placebo was administered before skin incision.
RESULTS: The primary outcome was observed in 18 of 370 women in group 1 (4.9%) and in 14 of 371 women in group 2 (3.8%), whereas it was noted in 45 of 371 women in group 3 (12.1%) (P < .001 for group 1 plus group 2 vs group 3). The number needed to treat to avoid 1 primary outcome was 13 (95% CI, 9 to 24). Between groups 1 and 2, there was no statistically significant difference regarding postoperative infectious morbidity (P = .60).
CONCLUSION: We were able to demonstrate the usefulness in elective cesarean delivery of prophylactic cefazolin vs placebo in reducing postoperative maternal infectious morbidity.
Version ID
1
Status
MEDLINE
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Comments
Comment in (CIN)
Year of Publication
2011

426.

Ventriculoperitoneal shunt infections after bladder surgery: Is mechanical bowel preparation necessary?.
Casperson K.J., Fronczak C.M., Siparsky G., O'Donnell C., Gundeti M.S., Campbell J.B., Wilcox D.T.
Embase
Journal of Urology. 186(4 SUPPL.) (pp 1571-1575), 2011. Date of Publication: October 2011. [Article]
AN: 51579860
Purpose: We investigated whether children with a ventriculoperitoneal shunt who undergo mechanical bowel preparation before bladder reconstruction with bowel have a lower rate of infection than children who do not undergo preoperative bowel preparation.
Material(s) and Method(s): We performed an institutional review board approved, retrospective chart review of the incidence of ventriculoperitoneal shunt infections after bladder reconstruction using bowel and compared infection rates using Fisher's exact test. Mean +/- SD followup was 2.9 +/- 2.3 years.
Result(s): Between 2003 and 2009, 31 patients with a ventriculoperitoneal shunt underwent bladder reconstruction using bowel, of whom 19 (61%) and 12 (39%) did and did not undergo mechanical bowel preparation, respectively. There was no significant difference in gender or age at surgery between the 2 groups. Infection developed in 3 children (9.6%) within 2 months postoperatively, including 2 (10.5%) with and 1 (8.3%) without bowel preparation (2-tailed p = 1.0).
Conclusion(s): There was no significant difference in the shunt infection rate between patients with a ventriculoperitoneal shunt who did and did not undergo preoperative bowel preparation. Our results add to the current literature suggesting that bowel preparation is unnecessary even in

patients with a ventriculoperitoneal shunt. © 2011 American Urological Association Education and Research, Inc.
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Publisher
Elsevier Inc. (360 Park Avenue South, New York NY 10010, United States)
Year of Publication
2011

427.

Safety and efficacy of PCNL for management of staghorn calculi in pediatric patients.
Kumar R., Anand A., Saxena V., Seth A., Dogra P.N., Gupta N.P.
Embase
Journal of Pediatric Urology. 7(3) (pp 248-251), 2011. Date of Publication: June 2011.
[Article]
AN: 51386543
Objectives: There are few reports on the use of PCNL for staghorn calculi in children. We evaluated the safety and efficacy of this technique, using adult equipment, in children below 16 years of age.
Method(s): Data for pediatric patients undergoing PCNL for staghorn renal calculi was prospectively recorded. A staghorn calculus was defined as a branched stone occupying more than one part of the collecting system. A standard fluoroscopy guided PCNL was performed in the prone position using adult nephroscopes. Stone clearance was assessed on fluoroscopy and X-ray in all patients and an ultrasound or CT scan in selected cases.
Result(s): Beginning October 2007, 33 pediatric patients underwent 34 PCNLs at our center. 12 of these children had staghorn calculi. All patients had normal renal function and no metabolic abnormality. One child had a solitary kidney. In 5 children, the primary tract was placed into the superior calyx and 4 of these were above the 12th rib. A 21Fr nephroscope was used through a 24Fr tract in 9 children while a 26Fr nephroscope was used through a 30Fr tract in 3 cases. 10 children were managed through a single tract. One patient each required SWL and ureteroscopy for residual fragments. 11 patients had complete clearance while 1 had insignificant residue. One child required intravenous antibiotics for post-operative fever while another developed an abdominal collection that was managed conservatively.
Conclusion(s): PCNL is safe and effective in the management of pediatric staghorn calculi. © 2011 Journal of Pediatric Urology Company. Published by Elsevier Ltd. All rights reserved.
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21527225 [https://www.ncbi.nlm.nih.gov/pubmed/?term=21527225]
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Publisher

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Year of Publication
2011

428.

Prophylactic antibiotic administration for prevention of surgical site infection in urological laparoscopic surgeries.
Matsumoto M., Shigemura K., Yamamichi F., Nakano Y., Tanaka K., Arakawa S., Fujisawa M.
Embase
The Kobe journal of medical sciences. 57(4) (pp E137-144), 2011. Date of Publication: 2011.
[Article]
AN: 366378404
The purpose of this study is to investigate the occurrence of surgical site infection (SSI) in our cases after laparoscopic surgery with prophylactic antibiotics administration (PAA) of 1-2 days or 3 days duration. Two hundred and nine patients were enrolled in this study. SSIs were categorized as urinary tract and/or wound infection. Laboratory data relating to infection such as serum white blood cell (WBC) and C-reactive protein (CRP) were investigated after surgeries and compared to the data before surgeries. Data were collected and analyzed retrospectively. There were 4 SSI patients in total. SSI was 4/125 (3.2 %) cases of PAA of 1-2 days (shorter) duration patients and there was 0/84 (0 %) of PAA of 3 days (longer) duration. Longer group showed the tendency of lower SSI ratio even though the difference did not reach statistically significant (p=0.0978) because of small number of SSI cases and ratios. Change of serum WBC at 4th day from pre-surgery was significantly suppressed in longer group than shorter group. Our data showed 3-days of PAA might be better to be selected according to the cases especially such as, for instance, immune-compromised hosts. Future prospective study with more number of patients may be necessary for further evaluation.
PMID
22971984 [https://www.ncbi.nlm.nih.gov/pubmed/?term=22971984]
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Year of Publication
2011

429.

Surgical antibiotic practices among pediatric urologists in the United States.
Hsieh M.H., Wildenfels P., Gonzales Jr. E.T.
Embase
Journal of Pediatric Urology. 7(2) (pp 192-197), 2011. Date of Publication: April 2011.
[Article]
AN: 50928372
Purpose: We hypothesized that there are practice variations in the use of surgical antibiotics by pediatric urologists in the United States.
Material(s) and Method(s): A 31-question online survey was distributed to members of the Society of Pediatric Urology. The questionnaire examined physician preferences for surgical antibiotic use, including indications, antibiotic selection, timing of administration, and duration.

Result(s): 189 pediatric urologists responded to the survey. >85% of responders give antibiotics before open pyeloplasty, after hypospadias repair (when a urethral catheter is left in place), or perioperative or postoperative antibiotics for open neoureterocystostomy or bladder reconstructive surgery. >90% of responders do not give postoperative antibiotics to children who have undergone circumcisions, simple chordee repairs, herniorrhapies, or hydrocelectomies. For all other open, laparoscopic, and endoscopic operations, use of antibiotics varied significantly. Diverse opinions exist regarding antibiotic use, including the importance of costs, potential adverse reactions, reduction in infection risk, and antibiotic resistance. There are major differences in gentamicin dosing and timing of administration of perioperative antibiotics. Conclusion(s): Perioperative and postoperative antibiotics are widely used by pediatric urologists. However, there is significant practice variation in surgical antibiotic administration with regards to most areas of pediatric urology, in particular laparoscopic, endoscopic and hypospadias surgery.

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20537590 [https://www.ncbi.nlm.nih.gov/pubmed/?term=20537590]
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Embase
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Publisher
Elsevier Ltd (Langford Lane, Kidlington, Oxford OX5 1GB, United Kingdom)
Year of Publication
2011

430.

Urogenital fistulae: A prospective study of 50 cases at a tertiary care hospital.
Mathur R, Joshi N, Aggarwal G, Raikwar R, Shrivastava V, Mathur P, Raikwar P, Joshi R
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Urology Annals. 2(2):67-70, 2010 May.
[Journal Article]
UI: 20882157
INTRODUCTION: The misfortunate incident of formation of a urogenital fistula remains a major challenge for surgical urologists worldwide. Such fistulae may not be a life-threatening problem, but surely the women face demoralization, social boycott and even divorce and separation. The fistula may be vaginal, recto-vaginal or a combination of the two. The World Health Organization (WHO) has estimated that in the developing nations, nearly 5 million women annually suffer severe morbidity with obstetric fistulae being the foremost on the list. The objective of our study was to enunciate the patient demography, patient profile, incidence, type of surgery, as well as the long-term outcomes encountered in the management of all types of genital fistulae at a tertiary care centre.
MATERIALS AND METHODS: 50 consecutive patients, attending the outpatient department with urogenital fistulae, were studied during the period of 5 years from July 2005 to July 2009. All female patients with complaints of urinary incontinence and fecal incontinence and dribbling, patients having a history of obstructed labor, radiotherapy, instrumental delivery, foreign body or trauma and with a history of hysterectomy (abdominal/ vaginal) and lower segment caesarean section (LSCS) were included. A thorough urological examination included a dye study using

methylene blue, Renal function tests, X-ray KUB and intravenous urography (IVU). Cystoscopy along with examination under anaesthesia (EUA) were done to assess the actual extent of injury. All patients were subjected to appropriate surgical interventions via the same combination of surgeons . Post operatively, prophylactic antibiotics were administered to all patients and patients were managed till discharge and followed thereafter via regular outpatient visits for a period of 3 years.
RESULTS: Age of patients ranged from 21 to 40 years. 64% patients hailed from rural areas, 76% were from the lower socio-economic strata, 40% illiterate and 69% were short Statured. Vesico vaginal fistulae (VVF) was seen in 64% cases of which 50% were due to obstructed labor, 19% cases post LSCS and 31% cases post total abdominal hysterectomy (TAH). 68% of urogenital fistulae were between 1 to 3 cms. We obtained a 75% cure rate in UVF, 87.5% cure rate in RVF while a 93.75% cure rate was observed in patients with VVF. 76% of all patients were cured while 8% had a recurrence, probably due to the large size of fistula.
CONCLUSION: Genital fistula is preventable, yet it remains a significant cause of morbidity among females of reproductive age group. Despite facilities available, certain conditions like physical, social, economic, illiteracy, and a very casual attitude towards maternal health and children birth practices limit utilization of services for women. It is important that the modern health care providers should be aware of these aspects, so that they can recognize services that are appropriate and acceptable to the people. Thus, one must agree that in cases of urogenital fistulae, "prevention is better than cure".
Version ID
1
Status
PubMed-not-MEDLINE
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Mathur, Rajkumar, Joshi, Nitin, Aggarwal, Gaurav, Raikwar, Ramsharan, Shrivastava, Vaibhav, Mathur, Poonam, Raikwar, Poonam, Joshi, Rupali
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PMID
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2943683
Year of Publication
2010

431.

Comparative evaluation of prophylactic single-dose intravenous antibiotic with postoperative antibiotics in elective urologic surgery.
Moslemi M.K., Movahed S.M.M., Heidari A., Saghafi H., Abedinzadeh M.
Embase
Therapeutics and Clinical Risk Management. 6 (pp 551-556), 2010. Date of Publication: 12 Nov 2010.
[Article]
AN: 610908902
Background: Unrestricted antibiotic use is very common in Iran. As a result, emergence of resistant organisms is commonplace. Antibiotic prophylaxis in surgery consists of a short antibiotic course given immediately before the procedure in order to prevent development of a surgical site infection. The basic principle of prophylaxis is to maintain effective concentrations of an antibiotic active against the commonest pathogens during the entire surgery.
Material(s) and Method(s): We prospectively investigated 427 urologic surgery cases in our department between August 2008 and September 2009 (Group1). As reference cases, we

retrospectively reviewed 966 patients who underwent urologic surgery between May 2004 and May 2008 (Group 2) who were administered antibiotics without any restriction. Prophylactic antibiotics such as cefazolin were administered intravenously according to our protocol. Postoperative body temperature, peripheral white blood cell counts, urinalysis, and urine culture were checked.
Result(s): To judge perioperative infections, wound condition and general condition were evaluated in terms of surgical site infection, as well as remote infection and urinary tract infection, up to postoperative day 30. Surgical site infection was defined as the presence of swelling, tenderness, redness, or drainage of pus from the wound, superficially or deeply. Remote infection was defined as occurrence of pneumonia, sepsis, or urinary tract infection. Perioperative infection rates (for surgical site and remote infection) in Group 1 and Group 2 were nine of 427 (2.6%) and 24 of 966 (2.5%), respectively. Surgical site infection rates of categories A and B in Group 1 were 0 and two (0.86%), respectively, while those in Group 2 were 0 and five (0.92%), respectively. There was no significant difference in infection rates in terms of remote infection and surgical site infection between Group 1 and Group 2 (P = 0.670). The amounts, as well as the prices, for intravenously administered antibiotics decreased to approximately one quarter.
Conclusion(s): Our protocol effectively decreased the amount of antibiotics used without increasing perioperative infection rates. Thus, our protocol of prophylactic antibiotic therapy can be recommended as an appropriate method for preventing perioperative infection in urologic surgery.

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Publisher
Dove Medical Press Ltd. (PO Box 300-008, Albany, Auckland, New Zealand)
Year of Publication
2010

432.

National surveillance of surgical-site infection through register-based analysis of antibiotic use after inguinal hernia repair.
Stridh Ekman G., Ringback Weitoft G., Nyren O., Dickman P.W., Ericsson O., Struwe J.
Embase
The British journal of surgery. 97(11) (pp 1722-1729), 2010. Date of Publication: Nov 2010.
[Article]
AN: 359864445
BACKGROUND: Systematic surveillance of surgical-site infections is not standard. The aim of this retrospective cohort study was to evaluate the feasibility of using existing national health registers for surveillance of postoperative antibiotic treatment suggestive of surgical-site infection.
METHOD(S): Data from national registers on hospital admissions and drug use were combined. Antibiotic purchases by 8856 patients subject to ambulatory care for inguinal hernia repair in Sweden during 2006 were ascertained during a 30-day interval immediately after surgery

(postsurgical period) and in an 11-month control period (6 months before and 5 months after the postsurgical period).
RESULT(S): The incidence of first purchases of skin and soft tissue antibiotics was 245 per 8697 person-months in the first postoperative month and 180 per 52 612 person-months in the preoperative control period, representing a 1-month risk difference of 2.4 (95 per cent confidence interval (c.i.) 2.0 to 2.7) per cent. Hence, a 1-month risk of 2.4 per cent could be attributed tentatively to the surgery. The rate of episodes with antibiotics used mainly for skin and soft tissue infection was sevenfold higher in the first postoperative month than in the control period (rate ratio 7.01, 95 per cent c.i. 5.94 to 8.27).
CONCLUSION(S): The risk of antibiotic treatment during the postsurgical period was of the same order of magnitude as infection rates reported in the Swedish Hernia Register and review studies. Surveillance of postoperative antibiotic use may be considered as a resource-saving surrogate marker for surgical-site infections or an indicator of inappropriate use.
PMID
20872842 [https://www.ncbi.nlm.nih.gov/pubmed/?term=20872842]
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Year of Publication
2010

433.

Modified Misgav Ladach method for cesarean section: Clinical experience.
Kulas T., Habek D., Karsa M., Bobic-Vukovic M.
Embase
Gynecologic and Obstetric Investigation. 65(4) (pp 222-226), 2008. Date of Publication: June 2008.
[Article]
AN: 351793719
Objective: To determine the advantages of modified a Misgav Ladach method over conventional (Pfannenstiel-Dorffler) cesarean section.
Study Design: From October 2002 to March 2005, 217 cesarean sections performed according to a modified Misgav Ladach method (without routine preoperative urinary catheterization, blunt separation of the fascia after a small incision, and unprepared plica vesicouterina) were prospectively compared with 153 randomly selected conventional cesarean sections. Maternal age, parity, gestational age, neonatal birth weight, procedure duration, operative complications and postoperative course were analyzed.
Result(s): The incidence of postoperative fever was 2.30 and 4.57% (p = 0.001), wound seroma 0.46 and 1.96% (p = 0.01), local wound infection 0.92 and 1.96% (p = 0.01), wound dehiscence 0 and 0.65% (NS), anemia 3.68 and 7.84% (p = 0.001), and need of blood transfusion 1.38 and 1.96% (NS) in the modified Misgav Ladach and conventional group, respectively. The mean duration of the operation was 26.24 min with the Misgav Ladach versus 39.41 min with the conventional operation (p < 0.001). The postoperative use of antibiotics and analgesics/antipyretics was significantly lower in the modified Misgav Ladach group (p = 0.001).
Conclusion(s): Study results demonstrated that the modified Misgav Ladach method of cesarean section is associated with faster postoperative recovery, lower morbidity and blood loss, shorter length of operative procedure, lower incidence of operative complications, lesser postoperative use of antibiotics and analgesics/antipyretics, and lower utilization of surgical material. The modified Misgav Ladach method of cesarean section is suitable for emergency and elective procedures, justifying its use in daily routine.

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18196903 [https://www.ncbi.nlm.nih.gov/pubmed/?term=18196903]
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Publisher
S. Karger AG (Allschwilerstrasse 10, P.O. Box, Basel CH-4009, Switzerland)
Year of Publication
2008

434.

Perioperative management of ventriculoperitoneal shunts during abdominal surgery.
Li G., Dutta S.
Embase
Surgical Neurology. 70(5) (pp 492-495), 2008. Date of Publication: November 2008.
[Article]
AN: 50040962
Background: Patients with ventriculoperitoneal shunts (VPSs) inserted for a variety of disorders may subsequently undergo gastrointestinal or urologic operations, and surgeons must determine the appropriate perioperative management to minimize the risk for shunt malfunction or infection. There is currently no established set of guidelines for this scenario. The objective of this study was to determine the risks and standard of practice for patients with VPSs undergoing abdominal surgery.
Method(s): A retrospective review of the charts of patients with VPSs who underwent abdominal or urologic surgery at the Stanford University Medical Center between 1995 and 2003 was performed. Data regarding type of abdominal surgery, level of contamination, choice of antibiotic therapy, perioperative management of the VPS, and outcomes were obtained.
Result(s): Twenty-six patient charts were reviewed, for a total of 39 operations (5 urologic, 23 upper gastrointestinal, and 11 lower gastrointestinal). Of these, 3 were clean, 34 were clean-contaminated, and 2 were dirty operations. Seven cases were laparoscopic, whereas 32 were open. Thirty-four cases required opening the bowel or urologic system. No patient had preoperative shunt externalization. All except one patient received pre- and postoperative antibiotics, but the duration and type of antibiotics were widely variable. The remaining patient had an inguinal hernia repair and received only one preoperative dose of cephalexin. Purulent fluid was found in 2 cases. One VPS found lying in purulent material next to an anastomotic leak was externalized and subsequently revised. However, in another patient, a VPS found lying next to a purulent jejunal tear was not externalized. This patient returned 2 months later with a VPS malfunction. In the remaining 35 cases, no VPS infection or malfunction was noted over 2 to 10 years of follow-up.
Conclusion(s): The data suggest that there is minimal risk for VPS malfunction or infection among patients undergoing routine clean and clean-contaminated abdominal and urologic surgeries. Patients with VPSs undergoing these operations do not need externalization of their shunt. None of the patients in this study had a contaminated procedure. For dirty procedures, surgeons should opt to externalize the shunt. Future studies will aim to better standardize the perioperative management of VPSs during abdominal surgery.
PMID

18207538 [https://www.ncbi.nlm.nih.gov/pubmed/?term=18207538]
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Publisher
Elsevier Inc. (360 Park Avenue South, New York NY 10010, United States)
Year of Publication
2008

435.

Reduction of urinary tract infection and antibiotic use after surgery: A controlled, prospective, before-after intervention study.
Stephan F., Sax H., Wachsmuth M., Hoffmeyer P., Clergue F., Pittet D.
Embase
Clinical Infectious Diseases. 42(11) (pp 1544-1551), 2006. Date of Publication: 01 Jun 2006.
[Article]
AN: 43752642
Background. Urinary tract infection is the most frequent health care-associated complication. We hypothesized that the implementation of a multifaceted prevention strategy could decrease its incidence after surgery. Methods. In a controlled, prospective, before-after intervention trial with 1328 adult patients scheduled for orthopedic or abdominal surgery, nosocomial infection surveillance was conducted until hospital discharge. A multifaceted intervention including specifically tailored, locally developed guidelines for the prevention of urinary tract infection was implemented for orthopedic surgery patients, and abdominal surgery patients served as control subjects. Infectious and noninfectious complications, adherence to guidelines, and antibiotic use were monitored before and after the intervention and again 2 years later. Results. The incidence of urinary tract infection decreased from 10.4 to 3.9 episodes per 100 patients in the intervention group (incidence-density ratio, 0.41; 95% CI, 0.20-0.79; P = .004). Adherence to guidelines was 82.2%. Both the frequency and the duration of urinary catheterization decreased following the intervention. Recourse to antibiotic therapy after surgery dropped in the intervention group from 17.9 to 15.6 defined daily doses per 100 patient-days (P<.005) because of a reduced need for the treatment of urinary tract infection (P<.001). Follow-up after 2 years revealed a sustained impact of the strategy and a subsequent low use of antibiotics, consistent with stable adherence to guidelines (80.8%). Conclusions. A multifaceted prevention strategy can dramatically decrease postoperative urinary tract infection and contribute to the reduction of the overall use of antibiotics after surgery.
PMID
16652311 [https://www.ncbi.nlm.nih.gov/pubmed/?term=16652311]
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Embase
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Publisher
Oxford University Press (2001 Evans Road, Cary NC 27513, United States)
Year of Publication
2006

436.

Management of penile fracture.
El-Taher AM, Aboul-Ella HA, Sayed MA, Gaafar AA
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Journal of Trauma-Injury Infection & Critical Care. 56(5):1138-40; discussion 1140, 2004 May. [Journal Article]
UI: 15179260
BACKGROUND: Penile fracture is not a frequent event. It consists of rupture of the tunica albuginea of the corpora cavernosa. Fracture occurs when the penis is erect, as the tunica is very thin and not flexible.
METHODS: This prospective study was carried out over a period of 1 year and included 12 patients presenting with penile fracture.
RESULTS: Diagnosis was made clinically, and there was no need to perform cavernosography in any case. The most common cause of fracture was trauma to the erect penis during intercourse. Mean age of patients was 29.5 (+8.96) years, and mean time of presentation was 15.5 (+8.04) hours. Subcoronal circumferential degloving incision was done in all cases. Nine patients were operated on, and three patients refused surgery and were treated conservatively. Repair consisted of evacuation of hematoma and repair of the tunical defect with absorbable sutures. The mean operative time was 33.9 (+8.2) minutes. Preoperative and postoperative antibiotics were used, and all operated cases were discharged on the second postoperative day. All operated cases were able to achieve full erection with straight penis except one, in whom mild curvature and pain during erection was observed.
CONCLUSION: Penis fracture is a true urologic emergency. It should be treated surgically as early as possible to ensure a better outcome.
Version ID
1
Status
MEDLINE
Authors Full Name
El-Taher, Ahmad M, Aboul-Ella, Hassan A, Sayed, Mohamed A, Gaafar, Atef A
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El-Taher, Ahmad M. Urology Department, Faculty of Medicine, Assiut University, Assiut, Egypt. aldanan67@hotmail.com
Year of Publication
2004

437.

Appendicitis in children less than 3 years of age: A 28-year review.
Alloo J., Gerstle T., Shilyansky J., Ein S.H.
Embase
Pediatric Surgery International. 19(12) (pp 777-779), 2004. Date of Publication: January 2004.
[Review]
AN: 38387459
Appendicitis is the most common surgical abdominal emergency in the pediatric population, but is rarely considered in children less than 3 years of age. The goal of this study was to identify the presenting symptoms and signs in this age group and examine their subsequent management and outcome. A 28-year experience of a single pediatric surgeon in academic practice was reviewed; 27 children less than 3 years old (mean 23 months) comprised 2.3% of all children with appendicitis in his series. The most common presenting symptoms were vomiting (27), fever (23), pain (21), anorexia (15), and diarrhea (11). The average duration of symptoms was 3 days, with 4 or more days in 9 children. Eighteen children were seen by a physician before the correct diagnosis was made; 14 were initially treated for an upper respiratory tract infection, otitis media, or a urinary tract infection. The most common presenting signs were abdominal tenderness (27), peritonitis (24), temperature 38.0 degreeC or more (21), abdominal distension (18), Leukocytosis (< 12.0 x 103/mm3) was found in 18, tenderness was localized to the right lower quadrant (RLQ) in 14 and was diffuse in 10. Abdominal radiographs demonstrated findings of a small-bowel obstruction (SBO) in 14 of 21 patients, a fecalith in 2, and a pneumoperitoneum in 1. Contrast enemas were performed in 6 children, 5 of whom had a phlegmon or an abscess. Perforated appendicitis was found in all 27 patients. An appendectomy was performed in 25 and a RLQ drain was placed in 18. Postoperative antibiotics were administered to 17 children for an average of 6 days. Two patients underwent interval appendectomies, 1 following treatment with IV antibiotics and 1 following surgical drainage. The average time to resume oral intake was 7 days and the average hospital stay was 21 (median 15) days. Sixteen patients had 22 complications, which included 6 wound infections, 4 abscesses, 4 wound dehiscences, 3 pneumonias, 2 SBOs, 2 incisional hernias. and 1 enterocutaneous fistula. Perforated appendicitis was found in all children less than 3 years old, resulting in very high morbidity (59% complications), which may be attributed to the 3-5-day delay in diagnosis. Although appendicitis is uncommon in this age group, it should be seriously considered in the differential diagnosis of children under the age of 3 years who present with the triad of abdominal pain, tenderness, and vomiting.
PMID
14730382 [https://www.ncbi.nlm.nih.gov/pubmed/?term=14730382]
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Publisher
Springer Verlag (Tiergartenstrasse 17, Heidelberg D-69121, Germany)
Year of Publication
2004

438.

A prospective audit of hypospadias correction in a regional paediatric surgery centre.
Heer R., Dorkin T.J., Byrne R.L., Griffiths T.R.L., Langecroft L.

Embase
European Journal of Pediatric Surgery. 14(5) (pp 328-332), 2004. Date of Publication: October 2004.
[Review]
AN: 39556814
Aim: To prospectively review the management and treatment of hypospadias in a single regional centre, and in particular, to assess the spectrum of cases treated, techniques used and to determine the nature of the complications.
Method(s): One hundred and fifty-three consecutive boys undergoing hypospadias repair during a 36-month period were included in the study. Information was collected prospectively and included the site of the urethral meatus, presence of chordee, surgical technique employed, use of urinary diversion, and the prescription of postoperative antibiotics and analgesics. Patients were assessed in the clinic following surgery at which time information on outcome and complications was obtained.
Result(s): One hundred and fifity-seven procedures for hypospadias were performed. Single-stage reconstruction was performed in 145 boys. GRAP (glanular reconstruction and preputioplasty) repair was the most common operation employed (n = 112). The overall fistula rate was 11.7% with the majority of patients having a satisfactory functional and cosmetic outcome following surgery.
Conclusion(s): A variety of techniques can be employed to provide satisfactory correction of hypospadias with an increasing emphasis on single-stage day case procedures. GRAP repair is the favoured option for distal hypospadias and incorporates preservation of the prepuce.
PMID
15543482 [https://www.ncbi.nlm.nih.gov/pubmed/?term=15543482]
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Publisher
Thieme Medical Publishers, Inc. (333 7th Avenue, New York NY 10001-5004, United States)
Year of Publication
2004

439.

Extravesical ureteral reimplantations for the correction of primary reflux can be done as outpatient procedures.
Marotte J.B., Smith D.P.
Embase
Journal of Urology. 165(6 II SUPPL.) (pp 2228-2231), 2001. Date of Publication: 2001.
[Conference Paper]
AN: 32423898
Purpose: Extravesical ureteral reimplantations are thought to be less morbid compared with traditional intravesical techniques. We believe a shorter length of stay can be achieved in children undergoing extravesical reimplantation for the correction of primary reflux without experiencing a reduction in quality of care.
Material(s) and Method(s): During a 16-month period 2 boys and 42 girls underwent extravesical ureteral reimplantation and received similar postoperative care by a single pediatric urologist (D. P. S.). These children were 1 to 14 years old (mean age 4.7) and underwent reimplantation for correction of primary vesicoureteral reflux due to breakthrough urinary tract infections,

moderate/high grade reflux and parental desire. Unilateral and bilateral reimplantations were done in 21 and 23 children, respectively, and 9 underwent reimplantation of duplex systems. Each child received 0.25 to 0.5% marcaine locally instead of caudal at termination of the surgical procedure. Criteria for patient discharge home included sufficient urine output, toleration of a liquid diet, adequate pain control with oral analgesics and " parental readiness." Renal and bladder ultra-sound was obtained no earlier than 1 month following surgery. Postoperative cystograms were obtained in any child with a febrile urinary tract infection or at parental request. Charts were reviewed for demographics, operative procedures, postoperative intravenous analgesic doses, catheter requirements and length of stay, defined as hours from surgery to discharge home. Surgical outcomes were analyzed specifically for perioperative complications and resolution of reflux on postoperative cystograms.
Result(s): The length of stay for all children ranged from 5 to 30 hours (average plus or minus standard deviation 13.3 +/- 6.8). Of the children 31 (70.5%) were discharged home the same day while the remaining 13 (29.5%) went home the next day. When comparing the outpatient surgical group to those hospitalized for 1 night, there were no significant differences in age, operative times and technique (unilateral versus bilateral). Children discharged home the same day required significantly fewer doses of intravenous analgesics (1.7 +/- 0.23 versus 2.7 +/- 0.36, p = 0.025). Intravenous narcotics were primarily used in the recovery room and ketorolac tromethamine was administered on the surgical ward. Seven children were discharged home with urethral catheters due to urinary tract infection in 1, transient urinary retention in 4 and surgeon preference in 2. Those patients discharged home with an indwelling catheter had a significantly longer length of stay (hours) compared to those without catheters (20.3 +/- 8.3 versus 12.0 +/- 5.6, p = 0.026). The child discharged home with a catheter due to urinary tract infection was rehospitalized 2 days later and received 48 hours of intravenous antibiotics. Postoperative cystograms revealed resolution of reflux in 12 of 13 children (92.3%). One child with preoperative bilateral high grade reflux had unilateral reflux on postoperative cystogram. Followup of 41 children at 3 to 19 months (mean 9.1) revealed no other significant complications.
Conclusion(s): In our experience extravesical ureteral reimplantation for the correction of primary reflux can be done on an outpatient basis in the majority of children without an increase in morbidity. Pain management and catheter placement significantly influence length of stay in children undergoing extravesical ureteral reimplantation.
PMID
11371950 [https://www.ncbi.nlm.nih.gov/pubmed/?term=11371950]
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Publisher
Lippincott Williams and Wilkins
Year of Publication
2001

440.

Penile fracture in Kermanshah, Iran: report of 172 cases.
Zargooshi J
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Journal of Urology. 164(2):364-6, 2000 Aug.
[Journal Article]
UI: 10893586

PURPOSE: Experience with 172 cases of penile fracture, in Kermanshah, Iran is reviewed.
MATERIALS AND METHODS: Records of penile fracture cases were reviewed from April 1990 to October 1999.
RESULTS: Diagnosis was made clinically and there was no need to perform cavernosography in any case. The most common mechanism of fracture was referred to by patients as "taghaandan" (to click or snap when forcibly pushing the erect penis down to achieve detumescence). All but 2 cases were treated surgically and 2 cases had concomitant urethral injury diagnosed by selective urethrography. Repair consisted of a circumferential degloving incision to evaluate the corpora. Because of unavailability of synthetic absorbables, inverted knot nylon sutures were used successfully for repair. Delay in operation did not increase difficulty in dissection or early postoperative morbidity. Preoperative and postoperative use of antibiotics was effective in eliminating risk of infection. There were no significant intraoperative or immediate postoperative complications and most patients were discharged home on postoperative day 1.
CONCLUSIONS: Patient misinformation about penile tissue properties is the main explanation for the high incidence of penile fracture. Cavernosography, and urethrography and intraoperative urethral catheterization are not routinely needed, as diagnosis can be made clinically. Preoperative and postoperative use of antibiotics, and a uniform surgical plan regardless of delay in presentation are recommended.
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1
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MEDLINE
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Comments
Comment in (CIN)
Year of Publication
2000

441.

Ventriculoperitoneal shunt infection after bladder augmentation.
Pinto K., Jerkins G.R., Noe H.N.
Embase
Urology. 54(2) (pp 356-358), 1999. Date of Publication: August 1999.
[Article]
AN: 29367265
Objectives. To examine the incidence of postoperative ventriculoperitoneal shunt infections in patients after augmentation cystoplasty. Methods. We retrospectively reviewed the charts of 21 patients with a ventriculoperitoneal shunt who had bladder augmentation (18 ileal and 3 ileocecal) with attention to the preoperative urine culture, perioperative antibiotics, and the length of time drains were maintained. The abdominal end of all shunts was wrapped in an antibiotic-soaked sponge during the procedure. All patients had at least 1 year of follow-up. Results. Seven patients (33%) had culture proven, preoperative urinary tract infections. All patients received at least 24 hours of preoperative and 48 hours of postoperative antibiotics. No postoperative shunt infections occurred during the study period. Conclusions. The incidence of postoperative ventriculoperitoneal shunt infections after augmentation cystoplasty can be kept low when prophylactic antibiotics and short-term drains are used.
PMID

10443738 [https://www.ncbi.nlm.nih.gov/pubmed/?term=10443738]
Status
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(Pinto) Urology Associates of North Texas, Cook Children's Medical Center, Fort Worth, TX, United States (Jerkins, Noe) The Department of Urology, University of Tennessee-Memphis, Memphis, TN, United States
Publisher
Elsevier Inc. (360 Park Avenue South, New York NY 10010, United States)
Year of Publication
1999

442.

The impact of nosocomial infections on patient outcomes following cardiac surgery.
Kollef MH, Sharpless L, Vlasnik J, Pasque C, Murphy D, Fraser VJ
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Chest. 112(3):666-75, 1997 Sep.
[Comparative Study. Journal Article. Research Support, Non-U.S. Gov't]
UI: 9315799
STUDY OBJECTIVE: To evaluate the relationship between nosocomial infections and clinical outcomes following cardiac surgery, and to identify risk factors for the development of nosocomial infections in this patient population.
DESIGN: Prospective cohort study.
SETTING: Barnes-Jewish Hospital, St. Louis, a university-affiliated teaching hospital.
PATIENTS: Six hundred five consecutive patients undergoing cardiac surgery.
INTERVENTIONS: Prospective patient surveillance and data collection.
MAIN OUTCOME MEASURES: Occurrence of nosocomial infections, multiorgan dysfunction, hospital mortality, and risk factors for the acquisition of nosocomial infections.
RESULTS: One hundred thirty-one (21.7%) patients acquired at least one nosocomial infection following cardiac surgery. Four independent risk factors for the development of a nosocomial infection were identified: the duration of mechanical ventilation, postoperative empiric antibiotic administration, the duration of urinary tract catheterization, and female gender. Thirty (5.0%) patients died during their hospitalization. The mortality rate of patients acquiring a nosocomial infection (11.5%) was significantly greater than the mortality rate of patients without a nosocomial infection (3.2%) (odds ratio [OR]=4.0; 95% confidence interval [CI]=2.7 to 5.8; p<0.001). Multiorgan dysfunction was found to be the most important independent determinant of hospital mortality (adjusted OR=23.8; 95% CI=13.5 to 42.1; p<0.001) along with the aortic cross-clamp time (adjusted OR=2.3; 95% CI=1.7 to 3.0; p=0.002) and severity of illness as measured by APACHE II (acute physiology and chronic health evaluation) (adjusted OR=1.1; 95% CI=1.1 to 1.2; p=0.019). Ventilator-associated pneumonia, clinical sepsis, female gender, the cardiopulmonary bypass time, and severity of illness were identified as independent risk factors for the development of multiorgan dysfunction. Among hospital survivors, patients acquiring a nosocomial infection had longer hospital lengths of stay compared to patients without a nosocomial infection (20.1+/-13.0 days vs 9.7+/-4.5 days; p<0.001).
CONCLUSIONS: Nosocomial infections, which are common following cardiac surgery, are associated with prolonged lengths of hospitalization, the development of multiorgan dysfunction, and increased hospital mortality. These data suggest potential interventions for the prevention of nosocomial infections following cardiac surgery that could substantially improve patient outcomes and decrease medical care costs.
Version ID

1
Status
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Authors Full Name
Kollef, M H, Sharpless, L, Vlasnik, J, Pasque, C, Murphy, D, Fraser, V J
Institution
Kollef, M H. Department of Internal Medicine, Pulmonary and Critical Care, Washington University School of Medicine, St. Louis, MO 63110, USA. marin@wupulm3.wustl.edu
Year of Publication
1997

443.

Minimally invasive approach for the treatment of idiopathic varicocele.
Spaziani E., Silecchia G., Ricci S., Raparelli L., Materia A., Fantini A., Basso N.
Embase
Surgical Laparoscopy and Endoscopy. 7(2) (pp 140-143), 1997. Date of Publication: 1997.
[Article]
AN: 27164529
Laparoscopic ligation of the spermatic veins represents a new approach for the treatment of the idiopathic varicocele. This procedure was performed in 28 consecutive patients. The diagnosis was based on physical examination anti Doppler ultrasonography. The indications for surgery were (a) infertility and abnormal semen analyses (15 patients), (b) scrotal pain (six patients) and (c) psychological reasons (seven patients). One patient underwent concomitant hernioplasty. Two cases presented with a recurrence after 6 and 12 months, respectively. The mean operative time was 34 +/- 11 min in unilateral cases and 47 +/- 9 min in bilateral cases. In one patient with left inguinal hernia and varicocele, the operative time was 70 min. All patients were discharged the day after operation without antibiotics and analgesics and resumed normal activity within 5 to 9 days, depending on age and occupation. Postoperative semen analyses (at 12 months' follow-up) were obtained from seven patients and demonstrated an improvement in semen motility (preoperative 40% versus postoperative 56%). This study confirms that laparoscopic treatment of varicocele is safe, minimally invasive, and, according to National Health Service fees, less costly than radiological occlusion procedures.
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9109245 [https://www.ncbi.nlm.nih.gov/pubmed/?term=9109245]
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Institution
(Spaziani, Silecchia, Ricci, Raparelli, Materia, Fantini, Basso) VII Patologia Chirurgica, Policlinico Umberto I, Univ. Studi di Roma 'La Sapienza', Viale del Policlinico, 155, 00161 Roma, Brazil
Publisher
Lippincott Williams and Wilkins (530 Walnut Street,P O Box 327, Philadelphia PA 19106-3621, United States)
Year of Publication
1997

444.

Transurethral laser therapy and urinary tract infections, Traitement transuretral au laser et infections urinaires.
Miller J., Ludwig M., Schroeder-Printzen I., Schiefer H.G., Weidner W.
Embase
Annales d'Urologie. 30(3) (pp 131-138), 1996. Date of Publication: 1996.
[Article]
AN: 26291134
To date transurethral laser ablation of the prostate (TULAP) in benign prostatic hyperplasia (BPH) is the commonest form of transurethral laser surgery. The invention of the so-called << sidefire >> laser fibre was the prerequisite condition for effective transurethral laser ablation of the prostate. Since the first transurethral laser ablation in human BPH was performed by Costello in September 1990, a multitude of urologists have adopted this technique. In the meantime, a great many studies have been carried out and a lot of data have been published. The initial, to some extent euphoric, enthusiasm of some urologists as well as some patients, especially in the USA and Europe, has turned into a more critical reflection. There is no doubt at all that TULAP is a feasible alternative treatment method with reasonable results. Especially in the high-risk patient, there is neither severe blood loss nor an uptake of irrigation fluid. It is also beneficial to allow unlimited treatment in patients on anticoagulant medication. Nevertheless, the value of TULAP in comparison to transurethral electroresection of the prostate (TURP), generally accepted as the << gold-standard >> in the surgical therapy of BPH, remains unclear. A final assessment will only be possible when further data on mortality, short and long term morbidity and outcome with this method have been presented. Strong evidence exists that the operation can be performed without blood loss and uptake of irrigation fluid. A further advantage seems to be preservation of sexual function, especially anterograde ejaculation in the majority of patients, in comparison to the << gold-standard >> TURP. In most studies, the value of TULAP is further compared with regard to the elimination of obstruction by means of pressure-flow-studies. The aspect most frequently neglected by all investigators to date is the frequency and severity of urinary tract infections (UTI) in patients in whom TULAP is performed. Basically, UTI in the form of cystitis, ascending infections such as male adnexitis or pyelonephritis, prostatitis of the remaining parts of the prostate and catheter-induced urethritis are associated with transurethral surgery in general. Certain data indicate an age-related frequency of UTI. From a rate of approximately 1 % of UTI in infants, the frequency rises to 30 % in the 8th decade of life. According to these data, one can expect that in a study of TULAP in high risk patients, most of whom are elderly, a large number present for surgery with a preexisting UTI. Other data demonstrate that after 4.5 days 50 % and more of patients with an indwelling catheter develop an ascending UT1, although a closed urinary drainage system has been used. In most cases enterobacteriaceae, in 80 % Escherichia coli, are detected. Especially in TULAP, a period of prolonged catheterisation has to be expected in the majority of patients. The risk of UTI in the perioperative phase is therefore expected to be higher. There are several higher risks and possibilities of complications in transurethral surgery in patients with UTI. Taking this into account, all our patients routinely undergo low dose antibiotic prophylactic treatment. The frequency of refections of the remaining parts of the prostate after prostatic surgery is strongly correlated to the flow characteristics in the prostatic urethra and to the amount of destruction of the prostatic tissue. Here are further reasons for a higher risk of infection after TULAP. Due to the fact that the prostatic tissue is not removed by a clear cut, but coagulated by laser beam, a rough surface due to tissue necrosis results. This is an ideal culture medium for bacteria aggravated by the disturbed laminar flow in the prostatic urethra, which favours an intraprostatic reflux of infected urine. There is evidence that UTI are the most important factor of morbidity during the first weeks after TULAP because of their bothersome symptoms. Therefore, suppression or eradication of preexisting UTI in patients undergoing TULAP is mandatory; perioperative as well as postoperative antibiotic prophylaxis is recommended.
PMID
8766150 [https://www.ncbi.nlm.nih.gov/pubmed/?term=8766150]
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Publisher
Elsevier Masson SAS (62 rue Camille Desmoulins, Issy les Moulineaux Cedex 92442, France)
Year of Publication
1996

445.

Antibiotic prophylaxis for surgery after vesico-ureteral reflux in children.
Coupris L., Alain J.L., Aubert D., Bondonny J.M., Chavrier Y., Daoud S., Delmas P., Dodat H., Dyon J.F., Galifer R.B., Jehannin B., Melin Y., Morisson-Lacombe G., Revillon Y., Robert M., Sauvage P., Schmitt M., Vaysse P.
Embase
Drugs. 35(SUPPL. 2) (pp 154-157), 1988. Date of Publication: 1988.
[Article]
AN: 18104744
PMID
3135164 [https://www.ncbi.nlm.nih.gov/pubmed/?term=3135164]
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Institution
(Coupris, Alain, Aubert, Bondonny, Chavrier, Daoud, Delmas, Dodat, Dyon, Galifer, Jehannin, Melin, Morisson-Lacombe, Revillon, Robert, Sauvage, Schmitt, Vaysse) Service de Chirurgie Pediatrique, Centre Hospitalier et Universitaire, 49000 Angers Cedex France
Publisher
Adis International Ltd (41 Centorian Drive, Private Bag 65901, Mairangi Bay, Auckland 10 1311, New Zealand)
Year of Publication
1988

446.

The use of prophylactic antibiotics in obstetrics and gynecology. A review. [Review] [153 refs]
Cartwright PS, Pittaway DE, Jones HW 3rd, Entman SS
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Obstetrical & Gynecological Survey. 39(9):537-54, 1984 Sep.
[Journal Article. Review]
UI: 6436760
Version ID
1
Status
MEDLINE
Authors Full Name
Cartwright, P S, Pittaway, D E, Jones, H W 3rd, Entman, S S
Affiliation ID
Source: PIP. 029689 Source: POP. 00147828

Collaborator Alias
PIP
This review first makes some general comments about prophylactic antibiotics: animal models for antimicrobial prophylaxis, bacterial flora of the female genital tract, timing and duration of prophylactic antibiotic administration, and drug of choice for prophylaxis. Subsequent sections cover the following: prophylaxis for bacterial endocarditis; prophylaxis for vaginal hysterectomy; prophylaxis for elective abortions; prophylaxis for infertility and reconstructive surgery; prophylaxis for cesarean section (risk factor for postoperative infection, antibiotic of choice, timing of administration, duration of administration, and alternatives ot systemic prophylactic antibiotics); prophylactic antibiotics and cervical cerclage; and prophylaxis for preterm rupture of membranes. The recommendations are preceded by a description of the various categories suggested by the Centers for Disease Control, which recognizes that some recommendations are more firmly based on objective data than others: category 1 -- strongly recommended for adoption; category 2, moderately recommended for adoption; and category 3, weakly recommended for adoption. The recommendations include the following: all patients with a prosthetic cardiac valve should receive antibiotic prophylaxis for endometrial biopsy, insertion of IUD, urethral catheterization, dilation and curettage, hysterectomy, normal vaginal delivery, cesarean section, and sigmoidoscopy (category 1); premenopausal patients undergoing vaginal hysterectomy , with or without vaginal repair, should receive prophylactic antibiotics (category 1); and postmenopausal patients, with or without estrogen replacement therapy, may receive prophylaxis (category 2); regarding abdominal hysterectomy, patients with valvular heart disease, low socioeconomic status, cervical conization preceding hysterectomy from 2-21 days, or underlying conditions making a prolonged or difficult operation likely may benefit from prophylaxis (category 2); for elective abortion, patients with valvular heart disease, or a history of acute salpingitis may benefit from prophylaxis (category 2); patients undergoing surgical management of infertility secondary to endometriosis, pelvic adhesions, or distorted tubal architecture may benefit from prophylaxis; and regarding cesarean section, indigent or medically compromised patients with rupture of membranes over 8 hours and labor only 12 hours should receive prophylaxis (category 1).
Language: English [References: 153]
Year of Publication
1984

447.

'Breakthrough' enterococcal septicemia in surgical patients. 19 cases and a review of the literature. [Review] [11 refs]
Dougherty SH, Flohr AB, Simmons RL
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Archives of Surgery. 118(2):232-8, 1983 Feb.
[Journal Article. Review]
UI: 6401423
We studied 19 surgical patients with 24 postoperative episodes of enterococcal septicemia not arising from the biliary or urinary tracts or from infected heart valves. Fifteen episodes occurred despite the administration of broad-spectrum antibiotics; in only one patient were these drugs effective against enterococcus. There were 14 episodes of enterococcemia in 11 patients following which the patient survived for at least one week. Thirteen (93%) of those episodes were treated with either ampicillin or drainage, or both. Five of the six long-term survivors received ampicillin therapy. Overall mortality was 68%. The data suggest that the enterococcus may emerge as a blood-borne pathogen in immunodepressed, postoperative patients receiving antibiotics for other infections of enteric origin. Antibiotic therapy specifically directed against this organism (and surgical drainage, if necessary) may be indicated during polymicrobial sepsis of

enteric or mixed origin. If the spectrum of antibiotics does not include enterococcus, this organism can cause "breakthrough" sepsis, as can many other opportunistic organisms. [References: 11]
Version ID
1
Status
MEDLINE
Authors Full Name
Dougherty, S H, Flohr, A B, Simmons, R L
Year of Publication
1983

448.

Biliary bacteria: significance and alterations after antibiotic therapy.
Pitt HA, Postier RG, Cameron JL
OVID Medline Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present
Archives of Surgery. 117(4):445-9, 1982 Apr.
[Journal Article]
UI: 7065891
Patients undergoing urgent and complex biliary operations were studied to determine (1) whether bactibilia is associated with postoperative complications amd (2) whether antibiotic therapy influences biliary bacteriology. Aerobic and anaerobic cultures were performed on hepatic bile obtained at surgery in 134 patients. Cultures were repeated four to seven days postoperatively in 111 patients who had indwelling biliary tubes. Positive operative bile cultures were associated with an increased incidence of wound infection and postoperative renal dysfunction. Postoperative bile cultures showed a significant increase in the number of patients having bactibilia, and a significant alteration in the types of organisms isolated. Anaerobes were cultured from 15% of operative and 23% of postoperative cultures. Antibiotic therapy did not sterilize bile, but merely altered biliary bacteriology. Furthermore, prolonged aminoglycoside therapy was associated with a high incidence of renal dysfunction, especially in elderly patients.
Version ID
1
Status
MEDLINE
Authors Full Name
Pitt, H A, Postier, R G, Cameron, J L
Year of Publication
1982

449.

Delayed Primary Closure of Bladder Exstrophy: Immediate Postoperative Management Leading to Successful Outcomes.
Baradaran N., Stec A.A., Schaeffer A.J., Gearhart J.P., Mathews R.I.
Embase
Urology. (no pagination)
[Article In Press]

AN: 51773263
Objective: To present the critical features of our postoperative plan for children undergoing delayed primary bladder closure because appropriate postoperative management is crucial to successful exstrophy repair.
Method(s): Using an institutionally approved database, patients with bladder exstrophy whose primary bladder closure was performed at least 1 month after birth were identified. All aspects of the postoperative management were reviewed.
Result(s): A total of 20 patients (18 boys) were identified: 19 with classic bladder extrosphy and 1 with an exstrophy variant. The patients underwent closure at a mean age of 9.9 months. All patients underwent pelvic osteotomy and immobilization for an average of 34.8 days. Analgesia was administered by way of a tunneled epidural catheter in 90% of patients for an average of 18.8 days, and 12 patients (60%) required adjunct intravenous analgesia. Bilateral ureteral catheters and suprapubic tubes were used in all patients. Total parenteral nutrition was administered to 10 (83%) of 12 patients who underwent closure after 2000. All patients received preoperative antibiotics and 2 weeks of postoperative intravenous antibiotics that was followed by oral prophylaxis. The mean hospital stay was 6.3 weeks. With an average follow-up of 7.4 years, delayed closure was 100% successful.
Conclusion(s): Successful delayed primary closure of bladder exstrophy requires a multidisciplinary approach. The keys to success include osteotomy, pelvic immobilization, analgesia, nutritional support, maximal bladder drainage, and infection prophylaxis. © 2011.
Status
Article-in-Press
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