

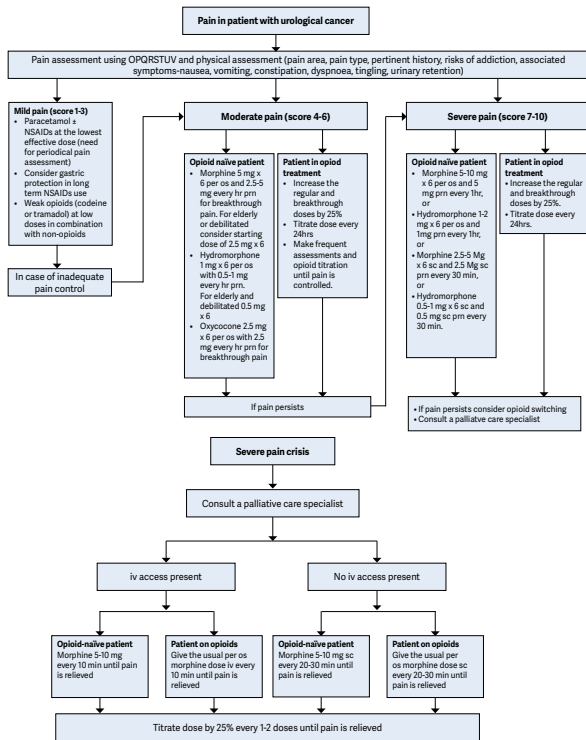
GUIDELINES ON PAIN MANAGEMENT & PALLIATIVE CARE

(Text update March 2013)

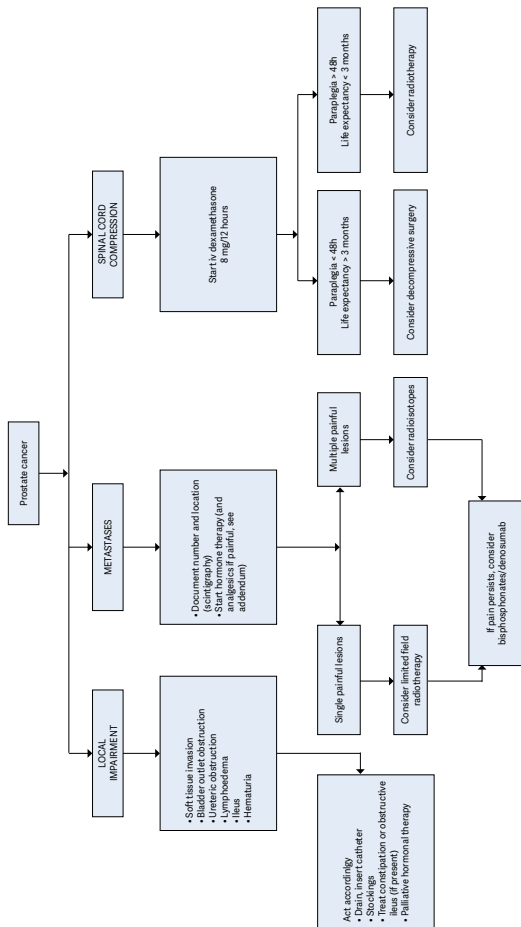
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This pocket version aims to synthesise the important clinical messages described in the full text and is presented as a series of algorithms and graded 'action based recommendations', which follow the standard for levels of evidence used by the EAU (see Introduction chapter).

Cancer pain treatment in urology



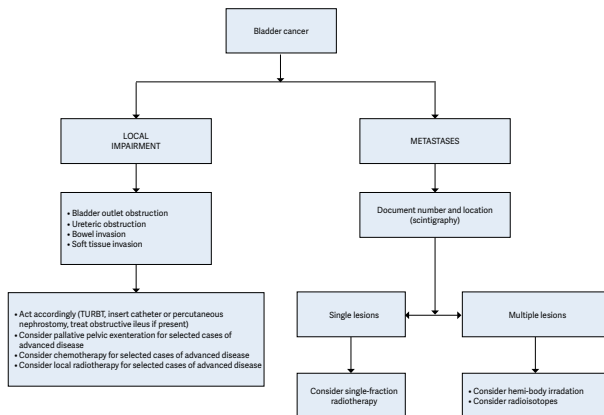
Pain management in prostate cancer patients



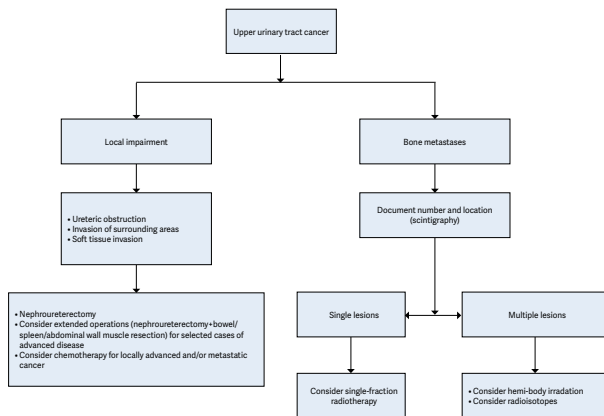
Prostate cancer pain management

| Recommendations | LE | GR |
|--|----|----|
| Systemic pain management | | |
| WHO analgesic ladder step 1: NSAID or paracetamol | 1a | A |
| Opioid administration | | |
| Opioids use (see Cancer pain treatment in urology) | 1a | A |
| Access to breakthrough analgesia | 1b | A |
| Tricyclic antidepressant and/or anticonvulsant in case of neuropathic pain | 1a | A |
| Pain due to painful or unstable bony metastases (single lesions) | | |
| External beam irradiation | 1b | A |
| Pain due to painful bony metastases (widespread, opioid refractory) | | |
| Radioisotopes (^{89}Sr or $^{153}\text{Sm-EDTMP}$) | 2 | B |
| Bisphosphonates | 1b | A |
| Denosumab | 1b | A |

Pain management in bladder cancer patients



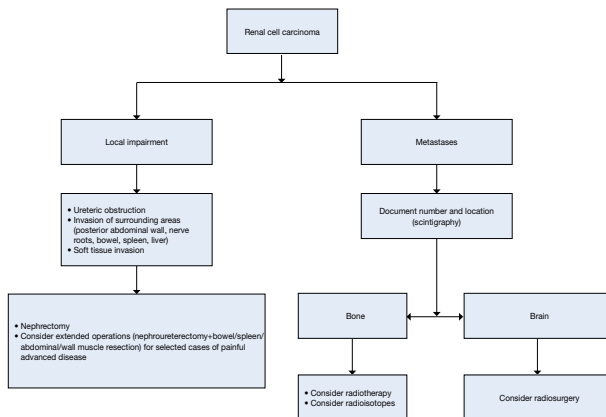
Pain management in upper urinary tract cancer patients



Transitional cell carcinoma pain management

| Recommendations | LE | GR |
|--|----|-----|
| Always disclose bladder outlet obstruction as source of local pain | - | GCP |
| In locally advanced bladder cancer, palliative cystectomy or exenteration might be an option for symptom relief. | 3 | B |
| Use radiotherapy to reduce pain and symptoms of locally advanced bladder cancer. | 1a | B |
| Use radiotherapy to reduce pain due to bone metastases. | 1b | A |

Pain management in renal cell carcinoma patients



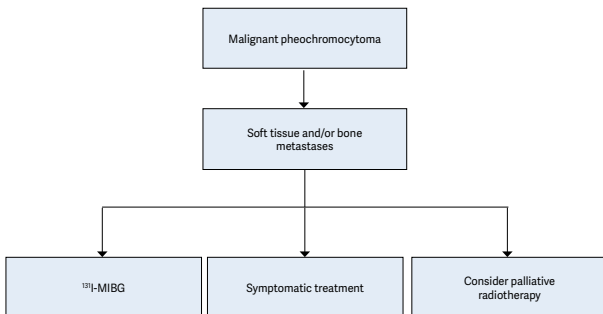
Renal cell carcinoma pain management

| Recommendations | GR |
|---|-----|
| Obstruction of the upper urinary tract due to haemorrhage and subsequent formation of blood clots is effectively treated by radical nephrectomy in non-metastatic tumour. | GCP |
| If the patient is physically fit for surgery, this should be done to increase the QoL, e.g., palliative nephrectomy in cases of metastatic tumour. | GCP |

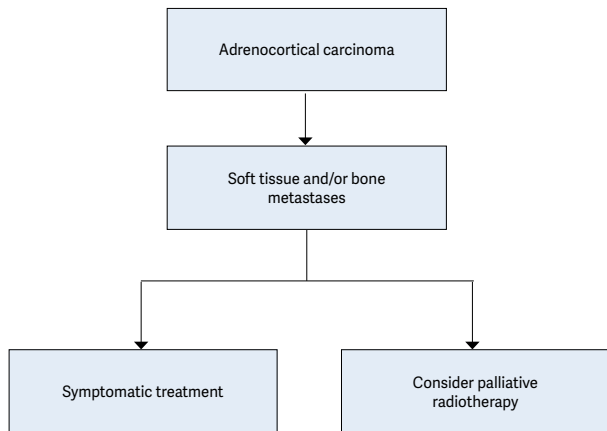
GCP = good clinical practice.

Pain management in patients with adrenal carcinoma

Pain management in patients with malignant pheochromocytoma



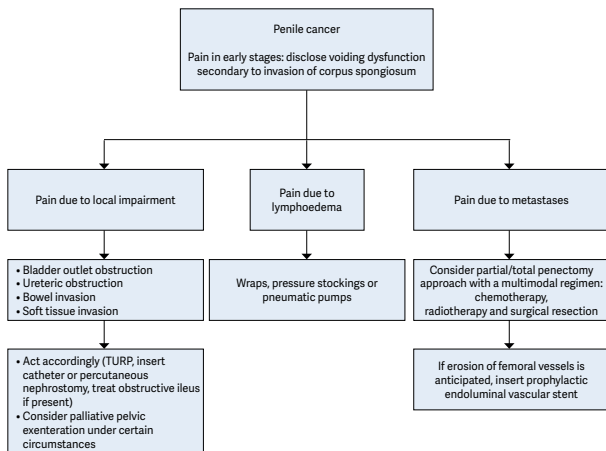
Pain management in patients with adrenocortical carcinomas



Adrenal carcinoma

| Recommendations malignant pheochromocytoma | LE | GR |
|--|-----------|-----------|
| ¹³¹ I-MIBG may reduce pain | 2b | B |
| Radiation therapy can induce partial remission | 3 | C |
| Recommendations adrenocortical carcinoma | | |
| Surgical removal of the primary tumour and local lymph nodes can decrease pain | 3 | C |
| Radiotherapy can be effective for palliation and pain management | 2b | B |

Pain management in penile cancer patients

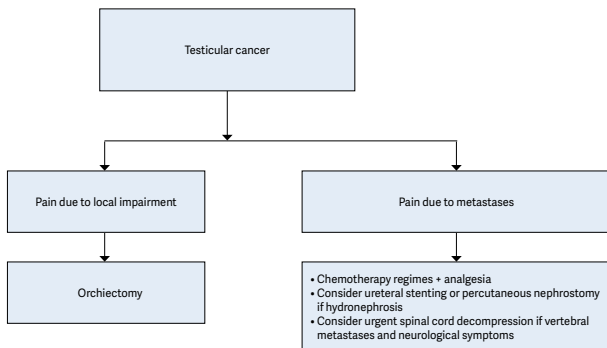


Penile cancer pain management

| Recommendations | LE | GR |
|---|----|----|
| Advanced penile cancer must be approached with a multimodal treatment regimen that includes neoadjuvant chemotherapy, radiotherapy and surgical resection | 2b | B |
| Radiotherapy might decrease pain from fixed nodes and bone metastases | 3 | C |

Pain management in testicular cancer patients

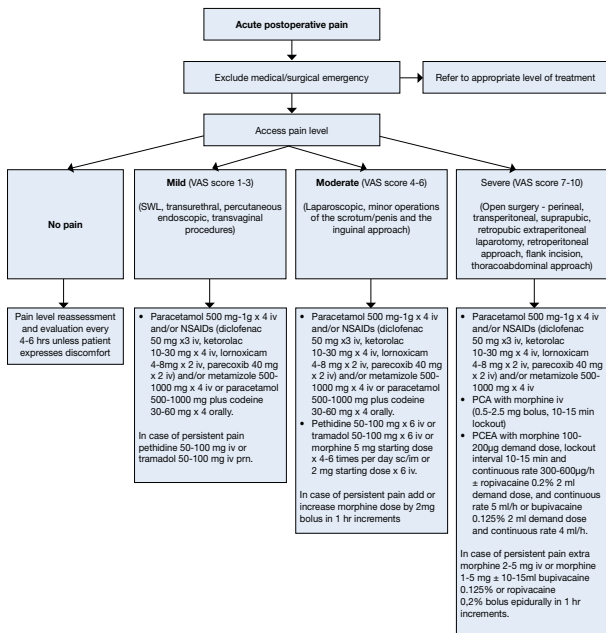
Testicular cancer pain management



| Recommendations | LE | GR |
|--|----|----|
| Systemic chemotherapy is effective for the back or flank pain due to retroperitoneal lymphadenopathy | 2b | B |
| Back pain and neurological symptoms due to spinal cord compression may require urgent surgery | 3 | C |

PAIN MANAGEMENT AFTER UROLOGICAL OPERATIONS

Postoperative pain management



PCA = patient controlled analgesia; PCEA = patient controlled epidural analgesia; PRN = as needed.

Recommendations pain treatment after different urological operations

| | | |
|--|-----------|-----------|
| Extracorporeal shock wave lithotripsy | LE | GR |
| Administer NSAIDs or midazolam 30-45 min before SWL procedure to reduce the need for opioids | 2b | B |
| Transurethral procedures | LE | GR |
| Postoperative analgesics with spasmolytic effect or mild opioids are preferable. | 3 | C |
| Antimuscarinic drugs could be helpful in reducing discomfort resulting from the indwelling catheter. | 3 | B |
| Antimuscarinic drugs may reduce the need for opioids. | 3 | B |
| Laparoscopic and robotic procedures | LE | GR |
| Low intra-abdominal pressure and good desufflation at the end of the procedure reduces postoperative pain. | 1b | A |
| NSAIDs are often sufficient for postoperative pain control. | 2a | B |
| NSAIDs decrease the need for opioids. | 1b | B |

NSAIDs = non-steroidal anti-inflammatory drugs; SWL = extracorporeal shock wave lithotripsy.

Recommendations pain management after open surgery

| | | |
|--|-----------|-----------|
| Minor operations of the scrotum/penis and the inguinal approach | LE | GR |
| For postoperative pain control, multimodal analgesia with a combination of NSAIDs or paracetamol plus local anaesthetics should be used. | 3 | B |
| If possible, avoid opioids for outpatients. | 3 | C |

| | | |
|--|----|---|
| Transvaginal surgery | | |
| NSAIDs are often sufficiently effective after minor or moderate surgery. | 2A | B |
| NSAIDs decrease the need for opioids. | 1b | B |
| Transperitoneal laparotomy | | |
| Consider continuous epidural infusion of a combination of opioids and local anaesthetic. Once the patient is able to take oral analgesics use metamizole, paracetamol ± codeine or tramadol. | 1b | A |
| Retroperitoneal approach - flank incision - thoracoabdominal approach | | |
| Consider continuous epidural infusion of a combination of opioids and local anaesthetic. Once the patient is able to take oral analgesics use metamizole, paracetamol ± codeine or tramadol. | 1b | A |

NSAIDs = non-steroidal anti-inflammatory drugs; PCA = patient-controlled analgesia; PCEA = patient-controlled epidural analgesia.

Summary of recommendations for postoperative pain management in adults

| Recommendation | LE | GR |
|---|----|----|
| Preoperative assessment and preparation of patients allow more effective pain management. | 1a | A |
| Adequate postoperative pain assessment can lead to more effective pain control and fewer complications. | 2a | B |
| NSAIDs are often effective after minor or moderate surgery. | 2a | B |
| NSAIDs often decrease the need for opioids. | 1b | B |
| Avoid long-term use of COX inhibitors in patients with atherosclerotic cardiovascular disease. | 2a | B |
| The use of paracetamol is recommended for postoperative pain management because it reduces consumption of opioids. | 1b | B |
| Administer paracetamol as a single therapy to alleviate mild postoperative pain without major adverse effects. | 2a | B |
| The use of intravenous patient controlled analgesia is recommended because it provides superior postoperative analgesia, improving patient satisfaction and decreasing risk of respiratory complications. | 1b | A |
| Administer adjuncts in appropriate doses and monitored care to improve analgesic efficacy and reduce opioid-related side effects. | 1a | A |
| Administer clonidine preoperatively or epidurally postoperatively to reduce opioid Requirements. | 1a | A |

| | | |
|--|----|---|
| Gabapentin can be administered before as well as after surgery to decrease pain severity and need for analgesic supplementation. | 1a | A |
| Epidural analgesia, especially PCEA, provides superior postoperative analgesia, reducing complications and improving patient satisfaction, and is therefore preferable to systemic techniques. | 1b | A |

NSAIDs = non-steroidal anti-inflammatory drugs; PCEA = patient-controlled epidura.

Recommendations special populations

| Special populations | LE | GR |
|--|----|----|
| Ambulatory surgical patients | | |
| For postoperative pain control in outpatients, multimodal analgesia with a combination of NSAIDs or paracetamol plus local anaesthetics should be used. | 2b | B |
| If possible, avoid opioids. | 3 | B |
| Geriatric patients | | |
| Multimodal and epidural analgesia are preferable for postoperative pain management in elderly patients because these techniques are associated with fewer complications. | 2b | B |
| Obese patients | | |
| Postoperative use of opioids should be avoided in obese patients unless absolutely necessary. | 2b | B |
| An epidural local anaesthetic in combination with NSAIDs or paracetamol is preferable. | 2b | B |
| Perioperative pain management in children | | |
| Apply EMLA locally to alleviate venipuncture pain in children. | 1b | A |

Dosage and method of delivery of some important analgesics

Dosage and delivery of NSAIDs

| Drug | Daily dose | Route of administration |
|---|---------------------------|-------------------------|
| Conventional NSAIDs (non-selective COX inhibitors) | | |
| Ketorolac | 10-30 mg four times daily | Orally or iv |
| Ibuprofen | 400 mg three times daily | Orally |
| Ketoprofen | 50 mg four times daily | Orally or iv |
| Diclofenac | 75 mg twice daily | Orally or iv |
| | 50 mg three times daily | Orally or iv |
| | 100 mg twice daily | Rectally |
| COX-2 selective inhibitors | | |
| Meloxicam | 15 mg once per day | Orally |
| Lornoxicam | 4-8 mg twice daily | Orally or iv |
| Celecoxib | 200 mg once per day | Orally |
| Parecoxib | 40 mg once or twice daily | iv form only |
| Etoricoxib | 90-120 mg once daily | Orally |

Dosage and delivery of paracetamol, metamizole and its combinations with opioids

| Drug | Method of administration | Single dose (mg) | Maximal dose (mg/day) |
|-------------|--------------------------|------------------|-----------------------|
| Paracetamol | Orally | 500-1000 | 4000 (50 mg/kg) |
| Paracetamol | iv | 1000 | 4000 (50 mg/kg) |
| Metamizole | Orally | 500-1000 | 4000 |
| Metamizole | iv | 1000-2500 | 5000 |

| Paracetamol | Opioid | Times per day | Route of administration |
|------------------------|---------------------------|----------------------|--------------------------------|
| Paracetamol 1 g | Codeine 60 mg | Four | Orally or rectally |
| Paracetamol 600-650 mg | Codeine 60 mg | Four | Orally or rectally |
| Paracetamol 500 mg | Codeine 30 mg | Four | Orally or rectally |
| Paracetamol 300 mg | Codeine 30 mg | Four | Orally or rectally |
| Paracetamol 650 mg | Dextro-propoxyphene 65 mg | Four | Orally |
| Paracetamol 600-650 mg | Tramadol 75-100 mg | Four | Orally |
| Paracetamol 325 mg | Oxycodone 5 mg | Four | Orally |

Dose and delivery of opioids

| Drug | Method of administration | Common single dose (mg) | Maximal dose (mg) |
|----------------|---------------------------------|--------------------------------|--------------------------|
| Tramadol | Orally | 50 | 400-600 |
| Tramadol | iv | 50-100 | 400-600 |
| Dihydrocodeine | Orally | 60-120 | 240 |
| Piritramid | sc/im | 15-30 | 120 |
| Pethidine | Orally | 25-150 | 500 |
| Pethidine | Rectally | 100 | 500 |
| Pethidine | sc/im | 25-150 | 500 |
| Pethidine | iv | 25-100 | 500 |
| Morphine* | Orally | Starting with 10 | No maximal dose |

| | | | |
|-----------|----------|---------------------------------------|-----------------|
| Morphine* | Rectally | Starting with 10 | No maximal dose |
| Morphine* | sc/im | Starting with 5 | No maximal dose |
| Morphine* | iv | Starting with 2 | No maximal dose |
| Morphine* | iv (PCA) | 0.5-2.5 mg bolus 10-15 min lockout | No maximal dose |

**Strong opioids have no real upper dose limit (except buprenorphine). The dose must be titrated in correlation with pain relief and depending on the individual strength of unwanted effects such as respiratory depression. A simple way of calculating the daily dose of morphine for adults (20-75 years) is: 100 - patient's age = morphine per day in mg. PCA = patient-controlled analgesia.*

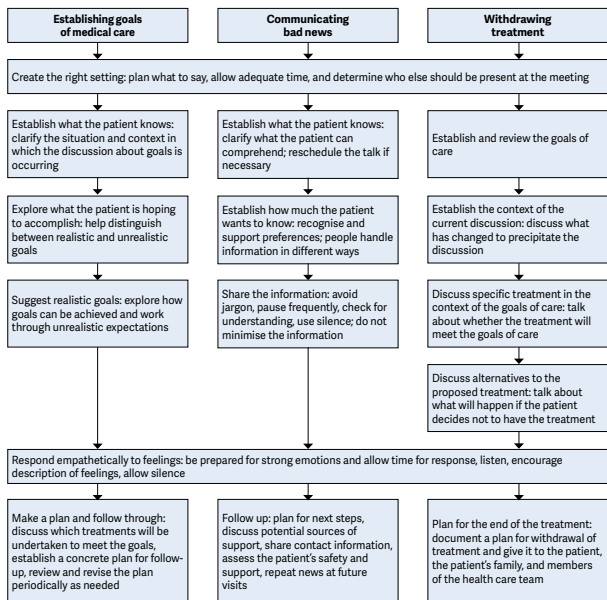
Common equi-analgesic doses for parenteral and oral administration of opioids*

| Drug | Parenteral (mg) | Oral (mg) |
|--------------------|------------------------|------------------|
| Morphine | 10 | 30 |
| Fentanyl | 0.1 | - |
| Pethidine | 75 | 300 |
| Oxycodone | 15 | 20-30 |
| Dextropropoxyphene | - | 50 |
| Tramadol | 37.5 | 150 |
| Codeine | 130 | 200 |

**All listed opioid doses are equivalent to parenteral morphine 10 mg. The intrathecal opioid dose is 1/100, and the epidural dose 1/10 of the dose required systemically.*

PALLIATIVE CARE

Protocols for communicating with patients about major topics in palliative care



Adapted from the Education on Palliative and End-of-life Care Project.

*Curriculum Emanuel LL, von Gunten CF, Ferris FD, eds.
The Education in Palliative and End-of-life Care (EPEC)
Curriculum: © The EPEC Project, 1999, 2003.*

Recommendations treatment of physical symptoms

| Dyspnoea and respiratory symptoms | LE | GR |
|--|-----------|-----------|
| Benzodiazepines can be considered when opioids and non-pharmacological measures fail to control breathlessness. | 1a | A |
| Cancer anorexia-cachexia syndrome | | |
| Nutritional support is ineffective | 1b | A |
| Oral thalidomide (50 mg/day, 2 weeks) seems effective | 1b | A |
| Vomiting | | |
| Dexamethasone is not effective in metoclopramide-refractory nausea. | 1b | A |
| Patients with a high risk of vomiting induced by chemotherapy are effectively treated with a combination of dexamethasone and 5-HT ₃ and neurokinin 1 receptor antagonists. | 1a | A |
| In patients with moderate risk of vomiting induced by chemotherapy, palonosetron combined with dexamethasone is recommended. | 1a | A |
| Patients receiving radiotherapy and experiencing emesis can be effectively treated with combined 5-HT ₃ receptor antagonist and dexamethasone. | 1a | A |
| Fatigue | | |
| For anaemic patients erythropoietin and darbopoetin have provided improvement. | 1b | B |
| Methylphenidate 10-40 mg/day, can reduce fatigue and depression. | 1b | B |
| Restlessness | | |
| Neuroleptics cannot be recommended for treatment of terminal restlessness. | 3 | C |

| | | |
|--|----|---|
| Agitated delirium | | |
| Haloperidol (5-10 mg, intravenous) can be useful | 2a | C |
| Constipation | | |
| No clear recommendations as to the use of a particular laxative can be made. | 1a | A |
| Anxiety | | |
| It is therefore not possible to draw conclusions about the effectiveness of pharmacotherapy in this setting. | 4 | A |

Recommendations treatment of psychological aspects

| | | |
|--|-----------|-----------|
| Fear | LE | GR |
| Distress must be recognised, measured, treated and monitored at all stages of the disease. | 2b | A |
| Depression | | |
| Efforts should be made to detect hidden depression. | 2b | B* |

*Recommendation based on expert opinion.

This short booklet text is based on the more comprehensive EAU guidelines (ISBN 978-90-79754-71-7), available to all members of the European Association of Urology at their website, <http://www.uroweb.org>.