GUIDELINES ON URINARY INCONTINENCE

(Text update March 2009)

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Introduction

Urinary incontinence (UI) is far more common in women than in men and its prevalence is increasing with age. For successful treatment, a standardised approach is recommended, initialised by careful assessment of the patient's medical history, physical examination and basic diagnostic tests at the first contact with a healthcare professional.

If the diagnosis is unclear or further investigation is needed, the patient should be referred to a specialist, who will then perform the appropriate diagnostic tests and initiate specialised treatment as indicated.

The algorithms presented here provide a pathway from diagnosis to treatment. For an easy overview patients are divided into sub-populations (women, men, children, frail/older people, and patients with neurogenic bladders), with each algorithm constructed following the same pattern.

The validated ICIQ-SF questionnaire is recommended for investigation of UI.

Validated ICIQ-SF questionnaire

ICIQ-SF

Initial number ☐☐ ☐☐ ☐☐☐

Today's date: DAY ☐☐ MONTH ☐☐ YEAR ☐☐

Many people leak urine some of the time. We are trying to find out how many people leak urine, and how much this bothers them. We would be grateful if you could answer the following questions, thinking about how you have been, on average, over the PAST FOUR WEEKS.

1 **Please write in your date of birth:** DAY ☐☐ MONTH ☐☐ YEAR ☐☐

2 **Are you** *(tick one)*: Female ☐ Male ☐

3 **How often do you leak urine?** *(Tick one box)*

never	☐	0
about once a week or less often	☐	1
two or three times a week	☐	2
about once a day	☐	3
several times a day	☐	4
all the time	☐	5

4 **We would like to know how much urine you think leaks.**
How much urine do you usually leak (whether you wear protection or not)? *(Tick one box)*

none	☐	0
a small amount	☐	2
a moderate amount	☐	4
a large amount	☐	6

5 **Overall, how much does leaking urine interfere with your everyday life?**
Please ring a number between 0 (not at all) and 10 (a great deal)

0 1 2 3 4 5 6 7 8 9 **10**

not at all — a great deal

ICIQ score: sum scores 3+4+5 ☐☐

6 **When does urine leak?** *(Please tick all that apply to you)*

never – urine does not leak	☐
leaks before you can get to the toilet	☐
leaks when you cough or sneeze	☐
leaks when you are asleep	☐
leaks when you are physically active/exercising	☐
leaks when you have finished urinating and are dressed	☐
leaks for no obvious reason	☐
leaks all the time	☐

Thank you very much for answering these questions.

Pharmacotherapy

Drugs for treatment of urinary incontinence may be efficacious in some patients, but they do have side effects, and frequently are not continued for longer periods of time. Hence it seems reasonable to consider them as an adjuvant to conservative and surgical therapy.

Antimuscarinics for treatment of OAB are of significant clinical benefit. No consensus has been achieved with regard to which of the drugs available should be used as first-, second-, or third-line treatment. Optimal treatment should be individualised, considering the patient´s co-morbidities and concomitant medications, and the pharmacological profiles of the different drugs.

The pharmacological treatment of SUI aims at increasing the effect of urethral sealing by increasing the tone in the urethral smooth and striated muscles. Several drugs may contribute to such an increase, but a low efficacy and/or side effects have limited their clinical use.

As no randomised controlled trial for treatment of overflow incontinence with parasympathomimetic drugs or α1-adrenoreceptor antagonists has yet been conducted, it must be concluded that there is an empirical basis only for selecting medical treatments for overflow incontinence. The effect of any medical treatment for overflow incontinence has to be judged by comparing it to the effect of elimination of residual urine (the underlying cause of “overflow incontinence”) by catheterisation or surgery. To date no clinical data are available for such a comparison.

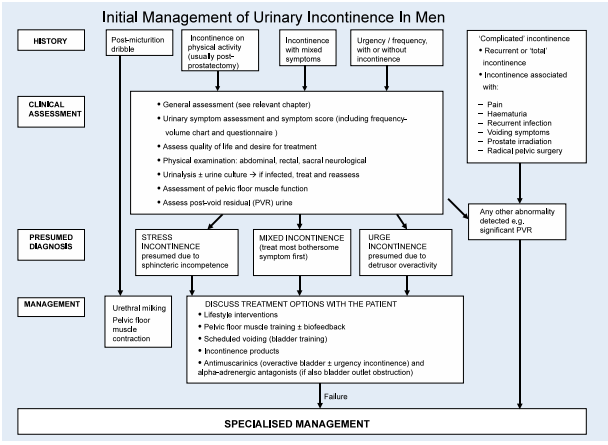
Whilst there is good evidence that the symptoms and cytological changes of urogenital atrophy may be reversed by low dose (local) vaginal estrogen therapy, there is currently no evidence that estrogens with or without progesterons should be used for treatment of urinary incontinence, since there is no direct effect on the lower urinary tract.

Desmopressin was well tolerated in all studies and resulted in significant improvements compared to placebo in reducing nocturnal voids and increasing the hours of undisturbed sleep. The risk of hyponatremia seems to increase with age, cardiac disease, an increasing 24-hour urine volume, and has been reported in a meta-analysis to be about 7.6%.

Management of Urinary Incontinence in Men

Initial assessment in men should triage those patients with a "complicated" incontinence, who need to be referred to a specialised management from those who are suitable for general assessment.

Recommendations for initial treatments for UI in men	GR
Lifestyle intervention	NR
Supervised pelvic floor muscle training for post prostatectomy SUI	B
Scheduled voiding regimes for OAB	C
When there is no evidence of significant post-void residual urine, antimuscarinic drugs for OAB symptoms, with or without urgency incontinence	C
Alpha-adrenergic antagonists (alpha-blockers) can be added if there is also bladder outlet obstruction	C
GR = grade of recommendation; NR = no recommendation possible.	

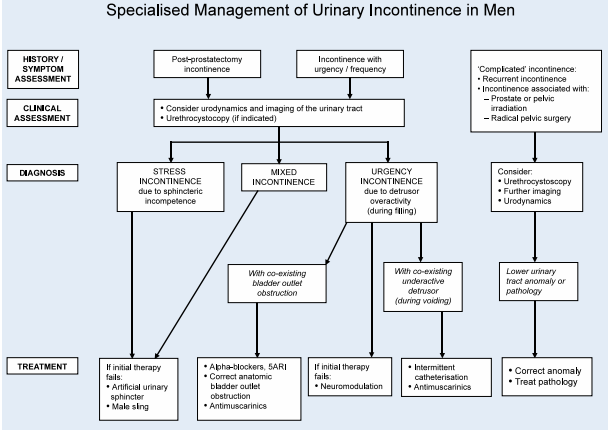


The specialist may first reinstitute initial management if it is felt that previous therapy had been inadequate.

Urinary incontinence in men suitable for surgical correction can be classified according to its etiology into sphincter related incontinence (postoperative, post-traumatic, and congenital), bladder related incontinence and fistulae.

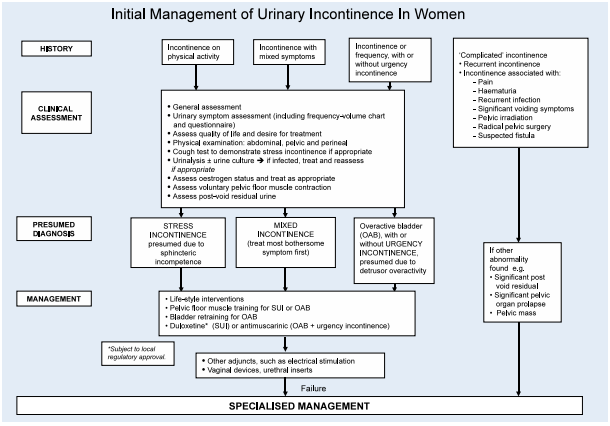
Aetiological classification of surgically correctable UI in men
Sphincter-related
Post-operative
• Post-prostatectomy for benign disease
• Post-prostatectomy for prostate cancer
• Post radiotherapy, brachytherapy, cryosurgery, HIFU for prostate cancer
• Post cystectomy and neobladder for bladder cancer

Post-traumatic
• After prostato-membranous disruption and urethral reconstruction
• Pelvic floor trauma
• Extrophy and incontinent epispadias
Bladder-related
• Refractory UUI (overactive bladder)
• Reduced capacity bladder
Fistulae
HIFU = high-intensity focused ultrasound.



Management of Urinary Incontinence in Women

Initial assessment in women should triage those patients with a "complicated" incontinence, who need to be referred to a specialised management, from those who are suitable for general assessment.

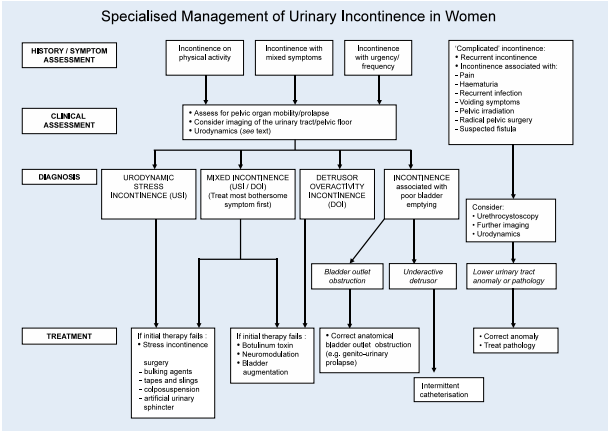


Women with "complicated" incontinence referred to specialised management are likely to require additional testing to rule out any other underlying pathology, i.e. cystourethroscopy or urinary tract imaging.

Surgery for Urinary Incontinence in Women	
Surgical procedure	**GR**
• Anterior colporrhaphy	NR
• Transvaginal BNS (needle)	NR
• Burch procedure: open	A
• Burch procedure: laparoscopic (by experienced laparoscopic surgeon only	B
• Paravaginal	NR
• MMK urethroplasy	NR
• BN sling: autologous fascia	A

• Sub-urethral slings (TVT)	A
• Urethral bulking agents	B

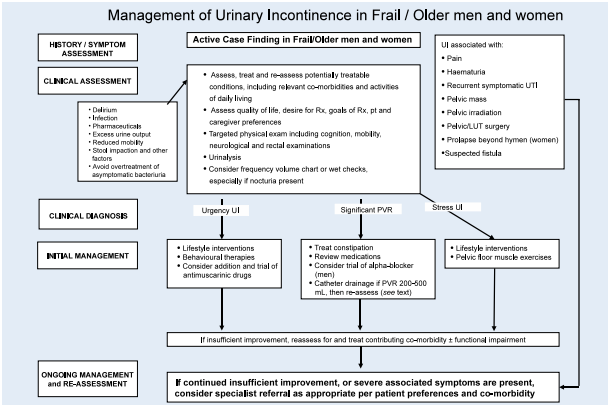
NR = no recommendation possible; BNS = bladder-neck suspension; GR = grade of recommendation; MMK = Marshall-Marchetti-Krantz; BN = bladder neck; TVT = tension-free vaginal tape.



Management of UI in Frail/Older Men and Women

Active case finding and screening for UI should be done in all frail/older men and women because UI is very common in this patient group. Most patients can be successfully managed using a combination of the approaches in the algorithm below.

Some patients may require specialist referral, including i.e. those with pain and haematuria, complicated co-morbidity, or non-responders to initial treatment. Specialised manage-



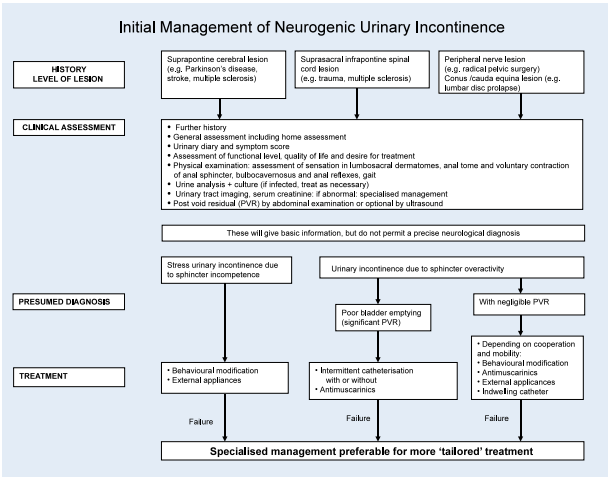
ment has to be individualised, as it depends heavily on the patient's condition.

Age is not a contraindication to incontinence surgery, but patients must be thoroughly evaluated prior to surgery. For some patients, the only possible outcome is contained UI (e.g. pads).

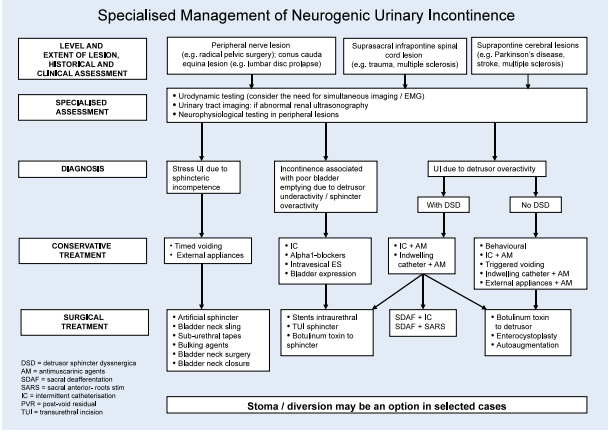
Management of Neurogenic Urinary Incontinence

Preservation of renal function is a major concern in treatment of neurogenic urinary incontinence, along with urinary control. Social impact, the degree of disability and QoL have to be taken into consideration.

For detailed diagnosis of LUT function in neurologic patients, history and clinical examination are not sufficient, urodynamic evaluation is crucial for diagnosis and determination of prognosis.



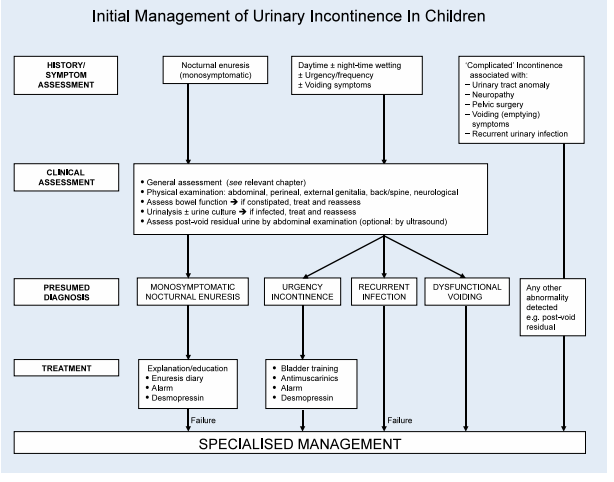
If the initial empirical treatment fails, early specialised management is indicated for all cases of neurogenic incontinence.

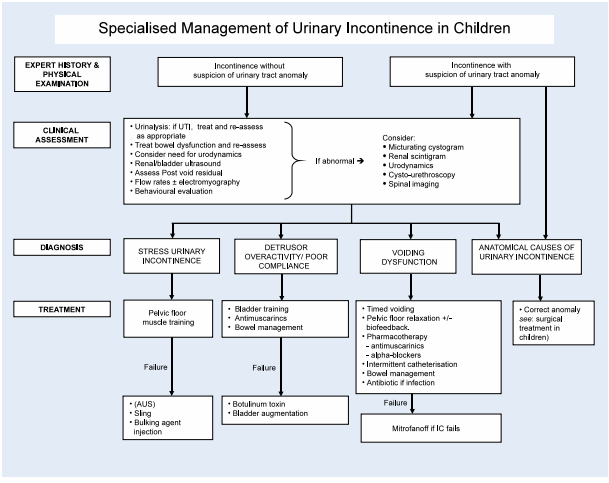


Management of Urinary Incontinence in Children

According to the ICCS consensus of 2006, urinary incontinence in children is defined as "wetting at inappropriate time and place in a child aged 5 years or older".

Nocturnal enuresis has to be discerned from urinary incontinence. Before diagnosing urinary incontinence as functional and treating it, anatomical urinary tract anomalies have to be ruled out.





This short text is based on the more comprehensive EAU guidelines (ISBN 978-90-79754-09-0), available to all members of the European Association of Urology at their website - http://www.uroweb.org/guidelines/online-guidelines/.