III. URINARY INCONTINENCE IN WOMEN

A. INITIAL MANAGEMENT

1. INITIAL ASSESSMENT SHOULD IDENTIFY:

- “Complicated” incontinence group.
  Those with pain or haematuria, recurrent infections, suspected or proven voiding problems, significant pelvic organ prolapse or who have persistent incontinence or recurrent incontinence after pelvic irradiation, radical pelvic surgery, previous incontinence surgery, or who have a suspected fistula, should be referred to a specialist.

- Three other main groups of patients should be identified by initial assessment.
  - Women with stress incontinence on physical activity
  - Women with urgency, frequency with or without urgency incontinence: overactive bladder (OAB)
  - Those women with mixed urgency and stress incontinence

Abdominal, pelvic and perineal examinations should be a routine part of physical examination. Women should be asked to perform a “stress test” (cough and strain to detect leakage likely to be due to sphincter incompetence). Any pelvic organ prolapse or urogenital atrophy should be assessed. Vaginal or rectal examination allows the assessment of voluntary pelvic floor muscle function, an important step prior to the teaching of pelvic floor muscle training.

2. TREATMENT

- For women with stress, urgency or mixed urinary incontinence, initial treatment should include appropriate lifestyle advice, pelvic floor muscle training, PFMT), scheduled voiding regimes, behavioural therapies and medication. In particular:
  - Advice on caffeine reduction for OAB (GoR B) and weight reduction (GoR A).
  - Supervised pelvic floor muscle training (GoR A), supervised vaginal cones training for women with stress incontinence (GoR B).
  - Supervised bladder training (GoR A) for OAB.
  - If oestrogen deficiency and/or UTI is found, the patient should be treated at initial assessment and then reassessed after using vaginal oestrogens for a suitable period (GoR B).
  - Antimuscarinics/beta 3 agonist for OAB symptoms with or without urgency incontinence (GoR A); duloxetine* may be considered for stress urinary incontinence (GoR B)

PFMT should be based on sound muscle training principles such as specificity, overload progression, correct contraction confirmed prior to training and use of “the Knack” for 12 weeks before reassessment and possible specialist referral.

Clinicians are likely to wish to treat the most bothersome symptom first in women with symptoms of mixed incontinence. (GoR C).

- Some women with significant pelvic organ prolapse can be treated by vaginal devices that treat both incontinence and prolapse (incontinence rings and dishes).

*Duloxetine is not approved for use in United States. In Europe it is approved for use in severe stress incontinence (see committee report on pharmacological management for information regarding efficacy, adverse events, and ‘black box’ warning by the Food and Drug Administration of the United States).
INITIAL MANAGEMENT OF URINARY INCONTINENCE IN WOMEN

**HISTORY**
- Incontinence on physical activity
- Incontinence with mixed symptoms
- Incontinence / frequency with urgency

**CLINICAL ASSESSMENT**
- General assessment (see relevant chapter)
- Urinary symptom assessment (including bladder diary and questionnaire)
- Assess quality of life and desire for treatment
- Physical examination: abdominal, pelvic and perineal
- Cough test to demonstrate stress incontinence if appropriate
- Urinalysis ± urine culture -> if infected, treat and reassess if appropriate
- Assess oestrogen status and treat as appropriate
- Assess pelvic floor muscle function
- Assess post-void residual urine

**PRESUMED DIAGNOSIS**
- **STRESS INCONTINENCE** presumed due to sphincteric incompetence
- **MIXED INCONTINENCE** Treat most bothersome symptom first
- **OAB with or without URGENCY INCONTINENCE** presumed due to detrusor overactivity

**MANAGEMENT***
- Life style interventions.
- Pelvic floor muscle training for SUI, MUI, or OAB (A)
- Bladder retraining for OAB (A)
- Antimuscarinics/beta 3 agonist OAB ± urgency incontinence (A) or Duloxetine** for SUI (B)
- Other adjuncts, such as electrical stimulation
- Vaginal devices eg cones (B)

**SPECIALISED MANAGEMENT**
- "Complicated" Incontinence:
  - Recurrent incontinence
  - Incontinence associated with:
    - Pain
    - Haematuria
    - Recurrent infection
    - Significant voiding symptoms
    - Pelvic irradiation
    - Radical pelvic surgery
    - Suspected fistula

- If other abnormality found e.g.
  - Significant post void residual
  - Significant pelvic organ prolapse
  - Pelvic mass

**Failure**

* Subject to local regulatory approval (see black box warning).

**Consider CONTINENCE PRODUCTS for temporary support during treatment**
III. URINARY INCONTINENCE IN WOMEN

A. SPECIALISED MANAGEMENT

1. ASSESSMENT

Women who have “complicated” incontinence (see initial algorithm) may need to have additional tests such as cytology, urodynamics, cystourethroscopy or urinary tract imaging. If these tests are normal then they should be treated for incontinence by the initial or specialised management options as appropriate.

- Those women with persistent symptoms despite initial management and whose quality of life is impaired are likely to request further treatment. If initial management has been given an adequate trial then interventional therapy may be desired. When the results of urodynamic testing may change management, we highly recommend testing prior to intervention in order to diagnose the incontinence type and, therefore, inform the management plan. Urethral function testing by urethral pressure profile or leak point pressure is optional.

- Systematic assessment for pelvic organ prolapse is highly recommended and the POP-Q method should be used in research studies. Women with co-existing pelvic organ prolapse should have their prolapse treated as appropriate.

2. TREATMENT

- If stress incontinence is confirmed then the treatment options that are recommended for patients include the full range of non-surgical treatments, as well as colposuspension procedures, (GoR A) and bladder neck/sub-urethral sling operations (GoR A). All of these procedures have potential risks and associated complications which should be discussed with the individual. The correction of symptomatic pelvic organ prolapse may be desirable at the same time. For selected patients injectable bulking agents (GoR B) and the artificial urinary sphincter (GoR C) can be considered.

- Refractory urgency incontinence (overactive bladder) secondary to idiopathic detrusor overactivity may be treated by botulinum toxin A (GoR A), sacral nerve stimulation (GoR B) or bladder augmentation/intestinal cystoplasty (GoR D).

- Those patients with voiding dysfunction leading to significant post-void residual urine (for example, >30% of total bladder capacity) may have bladder outlet obstruction or detrusor underactivity. Prolapse is a common reversible cause, of voiding dysfunction.
SPECIALISED MANAGEMENT OF URINARY INCONTINENCE IN WOMEN

**HISTORY/SYMPTOM ASSESSMENT**

- Incontinence on physical activity
- Incontinence with mixed symptoms
- Incontinence with urgency / frequency

**CLINICAL ASSESSMENT**

- Assess for pelvic organ mobility / prolapse
- Consider imaging of the UT/ pelvic floor
- Urodynamics (see notes)

**DIAGNOSIS**

- URODYNAMIC STRESS INCONTINENCE (USI)
- MIXED INCONTINENCE USI/DOI
  - Treat most bothersome symptom first
- DETRUSOR OVERACTIVITY INCONTINENCE (DOI)
- INCONTINENCE associated with poor bladder emptying

**TREATMENT***

- If initial therapy fails**: Stress incontinence surgery
  - Bulking agents (B)
  - Tapes and slings (A)
  - Colposuspension (A)
- If initial therapy fails**: Botulinum toxin (A)
  - Sacral Nerve Stimulation (B)
  - Bladder augmentation (D)
- Correct anatomic bladder outlet obstruction (e.g. genito-urinary prolapse)
  - Intermittent catheterisation

*“Complicated” Incontinence:
- Recurrent incontinence
- Incontinence associated with:
  - Pain
  - Haematuria
  - Recurrent infection
  - Voiding symptoms
  - Pelvic irradiation
  - Radical pelvic surgery
  - Suspected fistula

Consider:
- Urethrocystoscopy
- Further imaging
- Urodynamics

**Note procedures in increasing level of invasiveness

* Consider CONTINENCE PRODUCTS for temporary support during treatment