Urinary incontinence and pelvic organ prolapse in women

This guideline covers the assessment and management of urinary incontinence and pelvic organ prolapse in women.

**Definition of terms**
- **MSU**: midstream urine
- **OAB**: overactive bladder
- **SUI**: stress urinary incontinence
- **UI**: urinary incontinence
- **UTI**: urinary tract infection

### Urinary incontinence

#### Assessment
- At the initial clinical assessment, categorise the woman’s UI as SUI, mixed UI or urgency UI/OAB and start initial treatment on this basis. In mixed UI, direct treatment towards the predominant symptom.
- If SUI is the predominant symptom in mixed UI, discuss with the woman the benefit of non-surgical management and medicines for OAB before offering surgery.
- During the clinical assessment, seek to identify relevant predisposing and precipitating factors and other diagnoses that may require referral for additional investigation and treatment.
- Undertake routine digital assessment to confirm pelvic floor muscle contraction before the use of supervised pelvic floor muscle training for the treatment of UI.

#### Urine testing
- Undertake a urine dipstick test in all women presenting with UI to detect the presence of blood, glucose, protein, leucocytes and nitrates in the urine.
- If women have symptoms of UTI and their urine tests positive for both leucocytes and nitrates, send a MSU specimen for culture and analysis of antibiotic sensitivities. Prescribe an appropriate course of antibiotic treatment pending culture results. See NICE: UTI (lower) antimicrobial prescribing.
- If women have symptoms of UTI and their urine tests negative for either leucocytes or nitrates, send a MSU specimen for culture and analysis of antibiotic sensitivities. Consider the prescription of antibiotics pending culture results.
- If women do not have symptoms of UTI, but their urine tests positive for both leucocytes and nitrates, do NOT offer antibiotics without the results of MSU culture.
- If a woman does not have symptoms of UTI and her urine tests negative for either leucocytes or nitrates, do NOT send a MSU sample for culture because she is unlikely to have UTI.

#### Assessing residual urine - see pathway.

#### Quality-of-life assessment and bladder diaries - see pathway.

#### Pad testing, urodynamic testing, other tests of urethral competence, cystoscopy and imaging – see pathway: tests that should not be used or routinely used.

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### Referral and seeking specialist advice
- In women with UI, indications for consideration for referral to a specialist service include:
  - persisting bladder or urethral pain,
  - palpable bladder on bimanual or abdominal examination after voiding,
  - clinically benign pelvic masses,
  - associated faecal incontinence,
  - suspected neurological disease,
  - symptoms of voiding difficulty,
  - suspected urogenital fistulae,
  - previous continence surgery,
  - previous pelvic cancer surgery or pelvic radiation therapy.

### Non-surgical management of UI

#### Lifestyle interventions
- Recommend a trial of caffeine reduction to women with OAB.
- Consider advising women with UI or OAB and a high or low fluid intake to modify their fluid intake.
- Advise women with UI or OAB with a BMI >30 to lose weight.

#### Physical therapies

##### Pelvic floor muscle training
- Offer a trial of supervised pelvic floor muscle training of at least 3 months’ duration as first-line treatment for SUI or mixed UI.
- Pelvic floor muscle training programmes should comprise at least 8 contractions performed 3 times per day.
- Do not use perineometry or pelvic floor electromyography as biofeedback as a routine part of pelvic floor muscle training.
- Continue an exercise programme if pelvic floor muscle training is beneficial.

##### Electrical stimulation – see full guideline.

##### Behavioural therapies – see full guideline.

##### Neurostimulation – see full guideline.

##### Absorbent containment products, urinals and toiletising – see full guideline.

##### Catheters – see full guideline.

### Pharmacological management of UI
- Before starting treatment with a medicine for OAB, explain:
  - the likelihood of the medicine being successful,
  - common adverse effects associated with the medicines,
  - that some adverse effects of anticholinergic medicines, e.g. dry mouth and constipation, may indicate the medicine is starting to have an effect,
  - that substantial benefits may not be seen for at least 4 weeks and symptoms may continue to improve over time,
  - that the long-term effects of anticholinergic medicines for OAB on cognitive function are uncertain.
- When offering anticholinergic medicines to treat OAB, take account of the woman’s:
  - coexisting conditions (e.g. poor bladder emptying, cognitive impairment or dementia),
  - current use of other medicines affecting total anticholinergic load,
  - risk of adverse effects, including cognitive impairment.
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NICE: mirabegron for OAB

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For women with a diagnosis of dementia and for whom anticholinergic medicines are an option, follow recommendations on medicines that may cause cognitive impairment in the NICE guideline on dementia.

Choice of medicine

- Do NOT offer flavoxate, propantheline or imipramine to treat UI or OAB.
- Do NOT offer oxybutynin (immediate release) to older women who may be at higher risk of a sudden deterioration in their physical or mental health.
- Offer the anticholinergic medicine with the lowest acquisition cost to treat OAB or mixed UI in women (Box 1).
- If the first medicine is not effective or well-tolerated, offer another medicine with a low acquisition cost (Box 1).
- Offer a transdermal OAB treatment to women unable to tolerate oral medicines.
- For guidance on mirabegron see NICE: mirabegron for OAB.
- Desmopressin may be considered specifically to reduce nocturia in women with UI or OAB who find it a troublesome symptom. Use with caution in women with cystic fibrosis and avoid in those >65 years with cardiovascular disease or hypertension.
- Do NOT use duloxetine as a first-line treatment for women with predominant SUI. Do NOT routinely offer duloxetine as a second-line treatment for women with SUI; it may be offered as a second-line therapy if women prefer pharmacological to surgical treatment or are not suitable for surgical treatment. If duloxetine is prescribed, counsel women about its adverse effects.
- Do NOT offer systemic hormone replacement therapy to treat UI.
- Offer intravaginal oestrogens to treat OAB in postmenopausal women with vaginal atrophy.

Box 1: Anticholinergic medicines for OAB or mixed UI

- The NICE Evidence Review considered:
  - darifenacin,
  - fesoterodine,
  - oxybutynin (immediate release, extended release, transdermal, topical gel),
  - propiverine (immediate release, extended release)
  - solifenacin
  - tolterodine (immediate release, extended release)
  - trospium (immediate release, extended release).

For further details see full guideline.

Medication review

- Offer a face-to-face or telephone review 4 weeks after starting a new medicine for OAB. Ask the woman if she is satisfied with the treatment and:
  - if improvement is optimal, continue treatment.
  - if there is no or suboptimal improvement, or intolerable adverse effects, change the dose or try an alternative medicine for OAB and review again 4 weeks later.
- Offer a review before 4 weeks if the adverse events of a medicine for OAB are intolerable.
- Refer women who have tried taking medicine for OAB, but for whom it has not been successful or tolerated, to secondary care to consider further treatment.
- Offer a further face-to-face or telephone review if the medicine stops working after an initial successful 4-week review.
- Offer a review in primary care to women who remain on long-term medicine for OAB or UI every 12 months, or every 6 months if they are aged >75 years.

Invasive procedures for OAB - see pathway.

Surgical management of SUI - see pathway.

Pelvic organ prolapse

Assessment - see pathway.

Non-surgical management

- Discuss management options with women who have pelvic organ prolapse, including no treatment, non-surgical treatment and all surgical options, taking into account:
  - the woman's preferences,
  - site of prolapse,
  - lifestyle factors,
  - comorbidities, including cognitive or physical impairments,
  - age,
  - desire for childbearing,
  - previous abdominal or pelvic floor surgery,
  - benefits and risks of individual procedures.

Lifestyle modification

- Consider giving advice on lifestyle to women with pelvic organ prolapse, including information on:
  - losing weight, if the woman has a BMI >30,
  - minimising heavy lifting,
  - preventing or treating constipation.

Topical oestrogen

- Consider vaginal oestrogen for women with pelvic organ prolapse and signs of vaginal atrophy. See NICE guidance on managing menopausal symptoms.
- Consider an oestrogen-releasing ring for women with pelvic organ prolapse and signs of vaginal atrophy who have cognitive or physical impairments that might make vaginal oestrogen pessaries or creams difficult to use.

Pelvic floor muscle training - see pathway.

Pessaries

- Consider a vaginal pessary for women with symptomatic pelvic organ prolapse, alone or in conjunction with supervised pelvic floor muscle training.
- Refer women who have chosen a pessary to a urogynaecology service if pessary care is not available locally.
- Before starting pessary treatment:
  - consider treating vaginal atrophy with topical oestrogen,
  - explain that more than 1 pessary fitting may be needed to find a suitable pessary,
  - discuss the effect of different types of pessary on sexual intercourse,
  - describe complications including vaginal discharge, bleeding, difficulty removing pessary and pessary expulsion,
  - explain that the pessary should be removed at least once every 6 months to prevent serious pessary complications.
- Offer women using pessaries an appointment in a pessary clinic every 6 months if they are at risk of complications, (e.g. due to physical or cognitive impairment that might make it difficult for them to manage their ongoing pessary care).

Surgical management of pelvic organ prolapse - see pathway.

Recommendations – wording used such as ‘offer’ and ‘consider’ denote the strength of the recommendation.

Drug recommendations – the guideline assumes that prescribers will use a drug’s Summary of Product Characteristics (SPC) to inform treatment decisions.

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