Treatment of Overactive Bladder in Women

NICE CG171: The management of urinary incontinence in women

Lifestyle interventions and advice (for stress, urge and mixed):
- Reduce caffeine intake
- Advise modification of high or low fluid intake, ideally drinking 1.5 litres/day
- Treat contributory factors such as constipation / chronic cough
- Women with a BMI greater than 30 should be advised to lose weight
- Exclude recurrent UTI (more than 2 infections in 6 months)

Non-pharmacological interventions:
- A trial of supervised pelvic floor muscle training of at least 3 months’ duration should be offered as first line treatment. Training programmes should be at least 8 contractions performed 3 times a day
- Bladder training lasting for a minimum of 6 weeks should be offered as first-line treatment to women with urge or mixed urinary incontinence
- A bladder diary (minimum of 3 days) should be used covering both work and leisure days

Medication for overactive bladder (OAB) and urge incontinence:
(Do not use antimuscarinics for stress incontinence)
If lifestyle and non-pharmacological interventions have failed consider adding an antimuscarinic drug for a trial period of at least one month, after which, if not effective, treatment should be stopped or switched in line with the treatment pathway below. There is no clinical difference in efficacy between the different agents therefore the choice of drug is based on cost and patient’s clinical needs. Clinicians may want to use alternative agents within step 1 and 2 before progressing to step 3.

1st line
- Oxybutynin IR 5mg two or three times a day (not for frail elderly)
- Tolterodine IR 2mg twice a day (reduce to 1mg twice a day if necessary to minimise side effects)

2nd line
- Darifenacin MR 7.5mg once a day (increased if necessary after 2 weeks to 15mg once a day)
- Trospium MR 60mg capsules once a day
- Transdermal oxybutynin is suitable for patients unable to swallow tablets

3rd line
- Mirabegron ▼ MR tablets 50mg once daily
  It has shown similar efficacy to antimuscarinics (but is not superior)
  Only an option if antimuscarinic drugs are contraindicated or clinically ineffective or have unacceptable side effects

NICE TA290: Mirabegron for treating symptoms of overactive bladder
MHRA DSU 2015: Mirabegron: risk of severe hypertension and associated cerebrovascular and cardiac events
Treatment review:
- Review after 4 weeks treatment to assess the balance of beneficial and adverse effects
- If beneficial, review treatment after 6 months to assess whether it is still needed
- If no improvement / intolerable adverse effects change the dose or try an alternative OAB drug
- Only continue treatment for as long as benefit is maintained

Botulinum toxin:
- If patient wishes to discuss the option of invasive therapy then ensure referral to multidisciplinary team to arrange urodynamic investigation
- If detrusor over activity is proven and responsible for the OAB symptoms (that have not responded to conservative management and drug therapy) bladder wall injection with botulinum toxin A can be offered

Other considerations:
- NICE concluded that there is a lack of evidence to show a difference in clinical effectiveness between OAB drugs
- There is a lack of evidence about efficacy of second-line drug treatment after the first drug has failed. This should restrict the number of OAB drugs tried before seeking alternative treatments
- Trospium does not penetrate the CNS and should be considered for patients with cognitive impairment or decline (i.e. dementia) or the elderly
- More expensive OAB drugs DO NOT confer sufficient additional benefit to justify the higher cost
- In addition to current costs, patent expiries should be considered. Solifenacin expires in Dec 2018, but fesoterodine will be on patent till April 2022, and mirabegron until December 2027
- Fesoterodine is a pro-drug which is hydrolysed to the same active metabolite as tolterodine, having similar side effects, and has not been shown to be more effective than the other antimuscarinic agents

April 2015: Drugs for overactive bladder - cost of 1 year’s treatment

- Duloxetine (40 mg BD) £480
- Solifenacin (10 mg) £356
- Oxybutynin patch (Kentera®) £352
- Mirabegron MR (Betmiga® 25mg/50mg OD) £354
- Tolterodine MR (4 mg) £332
- Fesoterodine MR (4 or 8 mg OD) £335
- Solifenacin (5 mg) £335
- Oxybutynin MR (10 mg) £334
- Darifenacin (7.5 or 15 mg OD) £331
- Trospium (20 mg BD) £331
- Trospium MR (Regurin® XL 60mg) £300
- Oxybutynin (3 mg BD) £188
- Trospium (Flitrinos® 20 mg BD) £168
- Oxybutynin MR (5 mg) £167
- Tolterodine (2 mg BD) £36
- Oxybutynin (5 mg BD) £31

Doses given do not imply therapeutic equivalence