Female Urinary Incontinence Pathway
Urology department

Causes include - UTI, weak pelvic floor muscles, prolapse, atrophy, detrusor muscle dysfunction, obstruction, incompetent sphincter, urethral diverticulum, fistula, congenital lesion, cognitive impairment

GP/PN/midwife notes
Female urinary incontinence

Establish predominant symptom (stress, urge or mixed)
History and exam (abdo, neuro, pelvic) including dipstick urine Bladder diary for 3 days

Red flags
Refer direct to secondary care

Advice for all patients:
Lifestyle advice, bladder diary assessment, pelvic floor exercises and bladder training. Patient Info: Female Bladder Health

Fast track
2 week referral to appropriate specialty

Suspected CA
Haematuria Palpable mass

Community continence service
(or accredited alternative provider)
Refer using proforma: Camurology - GP - referral forms
Assessment, advice, supervised pelvic floor exercises 3/12 and/or 6/52 bladder training

Review
Symptoms improved?

No
Stress
Mixed
Urge

Yes
Discharge

Specialist continence service

Review 6 weeks
Symptoms improved

Persistence
Consider using concurrent medication on advice of community continence service

Ongoing symptoms
Stress
Mixed
Urge

Treat predominant symptom

1st line Oxybutynin or Tolterodine (immediate release) but be aware of risks of side effects especially cognitive impairment in >65s
2nd line M/R or T/D Oxybutynin, Trospium
If no success then try Alternatives Mirabegron, Solifenacin
Consider vaginal oestrogen if atrophy and OAB
Cambridgeshire formulary NICE

Review 4–8 weeks
Symptoms improved?

Yes
Discharge

No
Consider stopping drugs after 3–6 months

Key:
Blue: GP
Green: Community Continence Service
Orange: Secondary Care

Cambridge University Hospitals NHS Foundation Trust
Female Urinary Incontinence Pathway
Version 3, Approval November 2014
Referral options for Female continence

Red flags

- Palpable bladder
- Bladder/pelvic pain
- Failed previous stress incontinence
- Neurological disease CVA/MS/SCI
- <12 m post partum and abnormal examination -> refer to specialist post partum clinic

Simple continence -> via community continence service (community continence clinic or alternative accredited provider)
- Choice offered at point of referral to community continence service, see MSK for example
- Direct referral on to secondary care from community continence service using proforma, incorporating a box to allow GPs to specify “do not refer on direct, please pass back to GP if conservative measures have failed”

Symptomatic prolapse -> may be dealt with by
- GP surgery (for a pessary)
- Community continence service
- GPSI
- Secondary care
Choice of antimuscarinic/ Beta-3-Agonist

Drugs
1st line oxybutynin but be aware of the potential for side effects, especially cognitive impairment in the >65s

Alternatives
Different oxybutynin formulations, solifenacin, tolterodine or trospium. Expert opinion suggests that some women may respond to one anticholinergic but not others so it may be worth trying a second alternative.

For potential interactions see BNF antimuscarinics

From NICE full guideline “Treatment with darifenacin, oxybutynin, solifenacin, tolterodine and trospium in women with OAB is associated with improvements in frequency, leakage episodes and quality of life. There is no evidence of a clinically important difference in efficacy between antimuscarinic drugs. Based on the cost minimisation analysis undertaken, non-proprietary immediate release oxybutynin is the most cost effective antimuscarinic drug.”

Mirabegron is the first of a new class of drugs, selective beta-3-adrenoceptor agonists. Stimulation of the beta 3-adrenoceptors in the bladder increases mean voided volume per micturition and decreases the frequency of non-voiding contraction.

Mirabegron is NICE approved (TA290) for treating the symptoms of OAB only for people whom antimuscarinic drugs are contraindicated or ineffective or have unacceptable side effects.

Costs/month from BNF December 2013

<table>
<thead>
<tr>
<th>Drug</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxybutynin 5mg bd</td>
<td>£3.10</td>
</tr>
<tr>
<td>Oxybutynin 5mg qds</td>
<td>£6.20</td>
</tr>
<tr>
<td>Oxybutynin MR 5mg od</td>
<td>£13.77</td>
</tr>
<tr>
<td>Oxybutynin MR 10mg od</td>
<td>£27.54</td>
</tr>
<tr>
<td>Oxybutynin transdermal</td>
<td>£27.20</td>
</tr>
<tr>
<td>Mirabegron</td>
<td>£29.00</td>
</tr>
<tr>
<td>Solifenacin 5mg od</td>
<td>£27.62</td>
</tr>
<tr>
<td>Solifenacin 10mg od</td>
<td>£35.91</td>
</tr>
<tr>
<td>Tolterodine 2mg bd</td>
<td>£3.36</td>
</tr>
<tr>
<td>Trospium 20mg bd</td>
<td>£26.00</td>
</tr>
<tr>
<td>Darifenacin 7.5mg od</td>
<td>£25.48–Red listed</td>
</tr>
<tr>
<td>Dafifenacin 15mg od</td>
<td>£25.48–Red listed</td>
</tr>
</tbody>
</table>
Assessment of incontinence (map of medicine)

**Stress Incontinence**
Urinary loss when coughing, sneezing, exercise.

**Urgency incontinence**
Urinary loss accompanied or preceded by urgency (sudden desire to urinate that is difficult to defer).

**Overactive bladder**
Urgency occurs with or without urgency incontinence and is usually associated with frequency and nocturia.

**Mixed urinary incontinence**
Symptoms of both stress and urgency incontinence.

**Overflow incontinence/voiding dysfunction**
Is secondary to bladder distension-characterised by difficulties voiding. Infrequent voiding, unconscious voiding, leakage including nocturia.

**Functional incontinence**
An acute of chronic impairment of physical or cognitive function, ie inadequate perception of urge to void or physical ability to respond to urge.

**Information sources**

NICE
BNF
Cambridgeshire PCT formulary
Patient.co.uk
Map of Medicine
Cambridgeshire PCT Formulary October 2014
Drugs for incontinence (page 11)

<table>
<thead>
<tr>
<th>BNF Class</th>
<th>Drug Group</th>
<th>1st Line Formulary Choice</th>
<th>2nd Line Formulary Choices</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.4.2</td>
<td>Drugs for urinary frequency, enuresis and incontinence</td>
<td>Oxybutynin immediate release</td>
<td>Transdermal or MR oxybutynin (for patients unable to tolerate dry mouth with immediate release product).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Oral desmopressin (nocturia only)</td>
<td>Note – higher strength (20mg) MR considerably more expensive than other options.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Drug treatment should not be the first-line therapy - pelvic floor training, bladder training etc preferred initially. Where medication is indicated, NICE recommends use of least expensive drug and formulation. Intravaginal oestrogens recommended for overactive bladder symptoms in women with vagina atrophy - see section 6.4)</td>
<td>Trosplum (for patients where drug interactions with oxybutynin are a concern)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tolterodine (Immediate Release)</td>
<td>Mirabegron is recommended as an option for treating the symptoms of OAB only for people in whom antimuscarinic drugs are contraindicated or clinically ineffective, or have unacceptable side effects NICE TA290.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Solifenacin for urge incontinence/OAB (last line before surgery)</td>
</tr>
</tbody>
</table>

NICE pharmacological recommendations (from guidelines 2006)

Urge incontinence

First line treatment should be bladder training for at least 6/52. From NICE full guideline “Treatment with darifenacin, oxybutynin, solifenacin, tolterodine and trospium in women with OAB is associated with improvements in frequency, leakage episodes and quality of life. There is no evidence of a clinically important difference in efficacy between antimuscarinic drugs. Based on the cost minimisation analysis undertaken, non-proprietary immediate release oxybutynin is the most cost effective antimuscarinic drug.”
Drugs
1st line oxybutynin

Alternatives
Darifenacin, solifenacin, tolterodine, trospium, or different oxybutynin formulations.
In post-menopausal women with vaginal atrophy, offer intra-vaginal oestrogens for OAB symptoms

Costs/month from BNF December 2013
Oxybutynin 5mg bd £3.10
Oxybutynin 5mg qds £6.20
Oxybutynin MR 5mg od £13.77
Oxybutynin MR 10mg od £27.54
Oxybutynin transdermal £27.20
Mirabegron £29.00
Solifenacin 5mg od £27.62
Solifenacin 10mg od £35.91
Tolterodine 2mg bd £3.36
Trospium 20mg bd £26.00
Darifenacin 7.5mg od £26.13
Dafifenacin 15mg od £26.13
Duloxetine 40mg bd £36.96