Bedfordshire and Hertfordshire Priorities Forum Guidance Statement
Number: 61
Subject: The management of female incontinence
Date: May 2016
Date review due: May 2019

Introduction:
Urinary incontinence (UI) is a common symptom that can affect both women and men of all ages, with a wide variety of severity & nature. Although rarely life-threatening, UI may profoundly impact on the wellbeing of affected patients/carers and have considerable resource implications for the local health service.

DEFINITIONS	
Stress UI	Involuntary urine leakage on effort/exertion or on sneezing/coughing
Urgency UI	Involuntary urine leakage accompanied or immediately preceded by urgency
Mixed UI	Involuntary urine leakage associated with both urgency & exertion/effort/sneezing/coughing
OAB	Overactive bladder – urgency with/without urgency UI and usually with frequency & nocturia

These guidelines have been based on NICE CG171 – Urinary incontinence in women (Sep 2013) which replaces the previous NICE CG40 (Oct 2006) and reflects the changes in new methods of managing UI and reported improvements in the effectiveness and advances in the types of procedures offered since 2006. The updated guidelines have also assessed the cost-effectiveness of the UI drugs and updated the recommendations for the 1st and 2nd line choices of drug treatment.

Although the guidelines are intended for use in women, the initial assessment, conservative management and drug treatment pathway may be applicable for men with symptoms of UI/ OAB.

SUMMARY OF KEY POINTS FOR PRIMARY CARE CLINICIANS

See Appendix B for further details on drug pathway and Appendix I for community continence service referral forms and useful resource materials and information for patients

INITIAL ASSESSMENT

- Take history and test urine, urgent referral to specialist when certain symptoms present
- score symptoms and assess QoL
- Categorise UI and direct treatment to predominant symptom
- Treat nocturia, vaginal atrophy and urinary retention
- Consider a referral for more complex patients (e.g. significant stress UI or patient with cognitive impairment) to the community continence service for assessment and management.

1st LINE TREATMENT - non-pharmacological **conservative** management:

- Bladder diary (minimum 3 days)
- Lifestyle interventions (↓caffeine intake, fluid modification, ↓weight if BMI>30)
- Pelvic floor muscle training (minimum 3 months) for stress or mixed UI
- Bladder training (minimum 6 weeks) for OAB or mixed UI
- Patient education on self-management of condition

If no improvement in 6-8 weeks, a referral can be made to the community continence service for further assessment, treatment, advice and support.

DRUG TREATMENT for OAB and MIXED UI – Do **NOT** prescribe unless the patient has been assessed and 1st line non-drug conservative management has been tried for an adequate duration and has failed:

- OAB drugs **only** provide **modest benefit** and there are adverse effects (antimuscarinic effects i.e. dry mouth, constipation)
- Educate patient to manage patient expectation of drug treatment outcome. Discuss likelihood of success (only modest benefit); that side effects (dry mouth) means drug is working and may improve with time; and that full benefit may take at least 4-8 weeks.
- **Patient safety recommendations**: Start on low doses; take account of total anticholinergic load (other drugs with antimuscarinic side-effects) and co-existing conditions (e.g. poor bladder emptying).

Do not prescribe oxybutynin IR in **frail older people** i.e. those with multiple co-morbidities, functional impairments (walking/dressing difficulties) and/or any degree of cognitive impairment.

- Treatment goals must be clear and objective. Use a bladder diary to assess response.
- ACUTE prescriptions only for new lines of drug treatment. Do not put on REPEAT until reviewed.
- Medication review at 4-8 weeks after starting. Do not change drug or dose if therapy is beneficial.
- If new line of treatment is no more effective or better tolerated, revert back to previous line.
- Review regularly. Only continue drug treatment if benefit maintained.
- Review long term patients annually or every 6 months if >75 years.
    - Consider a drug holiday in long-term patients to see if still required.
    - If drug still needed, consider choice of OAB drug within the guidelines (unless previously not tolerated or ineffective).
- No difference in the clinical efficacy between OAB drugs. No evidence that one treatment is better than another. More expensive OAB drugs do not mean they are more effective. The lowest cost drug should be used (see Appendix B for full details): -
    - 1st line = oxybutynin IR **or** tolterodine IR*
    - 2nd line = trospium MR
    - 3rd line** = mirabegron
- If two agents are partially effective at different stages in the pathway and there are no plans escalate treatment to the next stage, use the most cost-effective treatment.

*Bedfordshire & Luton CCGs have approved use of the branded generic, Neditol XL®, if patient cannot tolerate the IR tolterodine preparation.

**Bedfordshire and Hertfordshire local agreement for specialists to use a 3rd line antimuscarinic (not solifenacin or oxybutynin M/R) if clinically appropriate before consideration of invasive procedures.

- If OAB drug is not effective at any line of treatment, **consider** referral to HCT Adult Bladder & Bowel service for further management options.
- Patients currently on OAB drug choices not within the guidelines may remain on treatment whilst benefit is still maintained.
- Do not prescribe UI/OAB drugs for stress UI. Duloxetine may be used for stress UI (specialist initiation only) when primary stress UI procedures have failed.

Review Period:

Guidelines to be reviewed every 3 years or in the event of new evidence or significant drug price changes

Acknowledgements:

The Hertfordshire guidelines have been produced by the Central Eastern CSU Pharmacy & Medicines Optimisation Team and approved by Hertfordshire Medicines Management Committee (HMMC April 2014) following consultation with local specialists at East & North Hertfordshire (E&NHHT) and West Hertfordshire Hospital Trusts (WHHT) and Hertfordshire Community Trust (HCT) Adult Bladder and Bowel (continence) Service. Special thanks to the following for their contribution to the development of these guidelines:

WHHT: Mr Andrew Hextall (Obs & Gynae consultant), Mr Freddie Banks (Urology consultant), Mr Michael Menzes (Obs & Gynae consultant) and Ms Rekha Shah (pharmacist)

E&NHHT: Miss Charlotte Foley (Urology consultant) and Mr Rami Atalla (Obs & Gynae consultant)

HCT: Ms Lee O'Hara (Clinical Service Lead)

CECSU PMOT: Ms EY Cheung (Senior Pharmaceutical Adviser)

Consultation in Bedfordshire & Luton – Bedfordshire and Luton Joint Prescribing Committee (JPC); Urology and Obstetrics and Gynaecology Consultants Bedford and Luton & Dunstable Hospitals

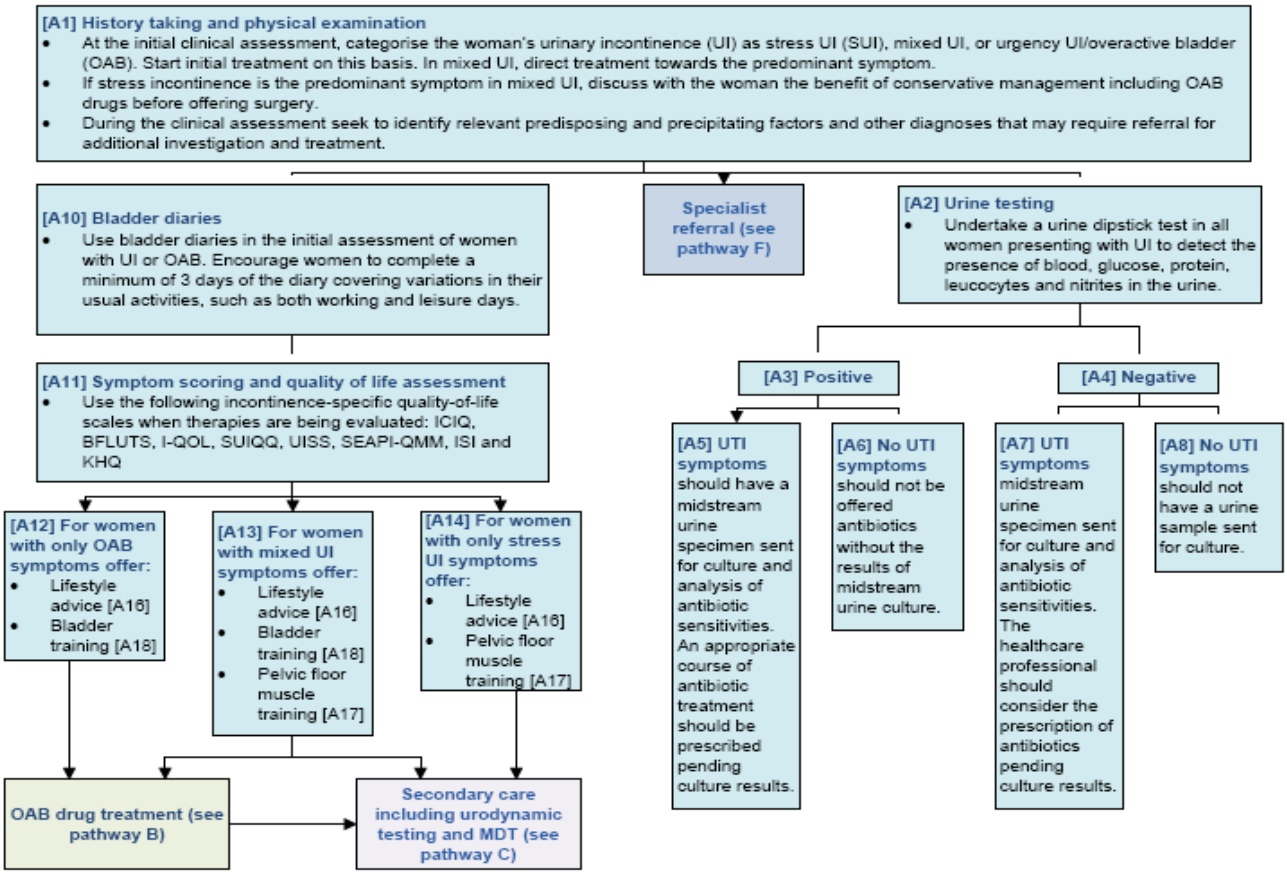
Appendixes:

Appendix A – Initial advice and conservative treatments
Appendix B – Drug treatment for OAB and mixed UI
Appendix C – Secondary care including urodynamic testing
Appendix D – Surgical approaches for SUI
Appendix E – Invasive approaches to OAB
Appendix F – Referral for specialist intervention and surgeon standards
Appendix G – Alternative conservative management
Appendix H – HMMC Hertfordshire care/management pathway for management of UI
Appendix I – Useful contact details/referral forms/resource materials

Human Rights and Equalities Legislation has been considered in the development of this guidance.

Appendix A

A – Initial advice and conservative treatments



[A15] Do not offer: assessments

- Cystoscopy in the initial assessment
- Pad tests
- Q-tip, Bonney, Marshall and Fluid-Bridge tests
- Magnetic resonance imaging, computed tomography, X-ray is not recommended for the routine assessment of women with UI. Ultrasound is not recommended other than for the assessment of residual urine volume.

[A9] Assessment of residual urine

- Measure post-void residual volume by bladder scan or catheterisation in women with symptoms suggestive of voiding dysfunction or recurrent UTI.
- Use a bladder scan in preference to catheterisation on the grounds of acceptability and lower incidence of adverse events.
- Refer women who are found to have a palpable bladder on bimanual or abdominal examination after voiding to a specialist.

[A16] Lifestyle advice

- Recommend a trial of caffeine reduction to women with OAB.
- Consider advising modification of high or low fluid intake in women with UI or OAB.
- Advise women with UI or OAB who have a BMI greater than 30 to lose weight.

[A17] Pelvic floor muscle training

- Undertake routine digital assessment to confirm pelvic floor muscle contraction before the use of supervised pelvic floor muscle training for the treatment of UI.
- Offer a trial of supervised pelvic floor muscle training of at least 3 months' duration as first-line treatment to women with stress or mixed UI.
- Pelvic floor muscle training programmes should comprise at least 8 contractions performed 3 times per day.
- Continue an exercise programme if pelvic floor muscle training is beneficial.
- Electrical stimulation and/or biofeedback should be considered in women who cannot actively contract pelvic floor muscles in order to aid motivation and adherence to therapy.
- Offer pelvic floor muscle training to women in their first pregnancy as a preventive strategy for UI.

[A18] Bladder training

- Offer bladder training lasting for a minimum of 6 weeks as first-line treatment to women with urgency or mixed UI.
- If women do not achieve satisfactory benefit from bladder training programmes, the combination of an OAB drug with bladder training should be considered if frequency is a troublesome symptom.

[A19] Do not offer: interventions

- Do not routinely use electrical stimulation in the treatment of women with OAB.
- Do not routinely use electrical stimulation in combination with pelvic floor muscle training.
- Do not use perineometry or pelvic floor electromyography as biofeedback as a routine part of pelvic floor muscle training.
- Do not offer transcutaneous sacral nerve stimulation to treat OAB in women.
- Explain that there is insufficient evidence to recommend the use of transcutaneous posterior tibial nerve stimulation to treat OAB.
- Do not offer transcutaneous posterior tibial nerve stimulation for OAB.

Appendix B

B – Drug treatment for OAB and mixed UI

Initial assessment and conservative management (see pathway A)

When unsuccessful after an adequate trial

Consider referral to community continence service

1st

Oxybutynin* IR tablets
(immediate release)
Starting dose: 5mg BD - TDS
Maximum dose: 5mg QDS

OR

Tolterodine IR tablets
(immediate release)
Starting dose: 2mg BD
(↓ to 1mg BD to minimise S/Es)

*Do NOT use oxybutynin IR in FRAIL OLDER PEOPLE defined as those with multiple co-morbidities, functional impairments e.g. walking or dressing difficulties and any degree of cognitive impairment

Medication Review* at 4-8 weeks and if ineffective or not tolerated**

Consider referral to community continence service

Bedfordshire & Luton CCG Agreement
Neditol® (tolterodine) XL 4mg od
Consider when the immediate release is effective but not tolerated

Oxybutynin Transdermal Patch 36mg twice weekly
Offer **only** when unable to take or unable to tolerate oral medication

2nd Line**

NICE recommends **2nd line drug** as one with the lowest acquisition cost◆ because there is a lack of difference in clinical effectiveness between drugs. This is currently:

Trospium MR (modified release) capsules 60mg OD

This 2nd line choice is based on the drug costs at the time of guideline publication◆ and will be reviewed in light of any significant changes in drug prices.

Medication Review* at 4-8 weeks and if ineffective or not tolerated**

Consider referral to community continence service

****Offer/consider:**
- **Intravaginal oestrogen** in post-menopausal women with vaginal atrophy.
- **Oral desmopressin** for troublesome nocturia. Use with caution in CF patients and avoid in >65yr with CVD and hypertension. Unlicensed indication.

3rd Line**

Mirabegron 50mg OD
(↓ to 25mg OD if moderate renal or hepatic impairment or if drug interactions. See SPC)
- Not an antimuscarinic agent. Efficacy is similar to antimuscarinics (but it is not superior). Can be used 1st line when absolute contraindication to antimuscarinic. Beds & Luton JPC approved in line with NICE TA290. See following links for Hertfordshire details: E&NHCCG &

Medication Review* at 4-8 weeks and if not tolerated or ineffective**

REFERRAL TO SECONDARY CARE

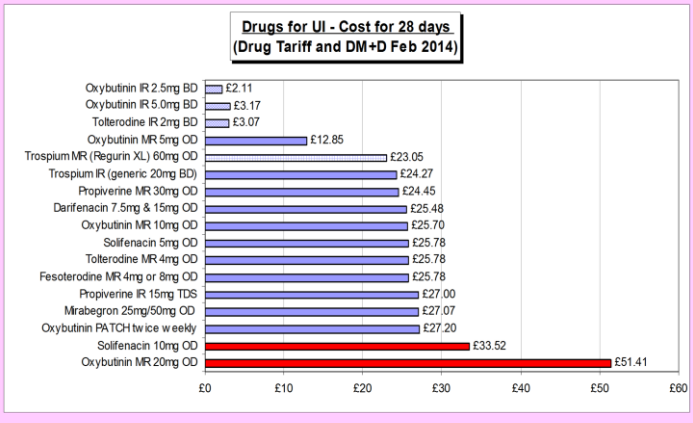
Specialist use only: Consider 3rd antimuscarinic drug, where appropriate, before offering invasive treatment. Choice is based on the drug of next lowest acquisition cost◆ after 1st and 2nd line (not solifenacin or oxybutynin MR – see below cost chart). When requesting GP to continue prescribing, specialist will provide clear communication on the previous lines of therapy and the rationale for the initiation of the 3rd antimuscarinic drug.

FURTHER INVESTIGATION & INVASIVE TREATMENT OPTIONS

Arrange urodynamic investigation to determine if detrusor overactivity is present: -
- Consider **botulinum toxin type A** (for idiopathic detrusor or neurogenic detrusor overactivity if patient is able and willing to self catheterise). See following links for: Hertfordshire treatment criteria E&NHCCG & HVCCG; Beds & Luton JPC criteria Beds & Luton JPC
- Sacral neuromodulation or Percutaneous Tibial Nerve Stimulation (PTNS). See

*****Medication review**
- First review at 4-8weeks (face-to-face or telephone), after starting drug treatment. Review sooner if side-effects are intolerable.
- If optimal improvement (may take up to 8 weeks), continue treatment. Review regularly.
- If clinically ineffective (defined as when there has not been a beneficial improvement in symptoms or QoL) **OR** side- effects are intolerable (change dose or consider alternative OAB drug (see 2nd and 3rd line choices).
- If new line of drug treatment is no more effective or better tolerated, revert patient to previous (less expensive) line of treatment.
- Review patients on long-term drug treatment annually in primary care (or every 6 months for >75yrs). Consider a drug holiday to see if treatment is still required. If still needed, consider 1st or 2nd line OAB drug choice if patient has not previously taken.
- Offer referral to secondary care if woman does not want to try another drug, but would like to consider

◆ The drug choices in this guideline will be reviewed in light of any significant changes in drug prices. Solifenacin and oxybutynin MR currently have the most expensive acquisition costs for their licensed dose range and should not be used:



C – Secondary care including urodynamic testing and MDT

Unsuccessful OAB drug treatment (pathway B)

Unsuccessful SUI conservative treatment (pathway A)

[C1] Urodynamic testing

- Do not perform multi-channel cystometry, ambulatory urodynamics or videourodynamics before starting conservative management.
- After undertaking a detailed clinical history and examination, perform multi-channel filling and voiding cystometry before surgery in women who have:
  - symptoms of OAB leading to a clinical suspicion of detrusor overactivity, or
  - symptoms suggestive of voiding dysfunction or anterior compartment prolapse, or
  - had previous surgery for stress incontinence.
- Do not perform multi-channel filling and voiding cystometry in the small group of women where pure SUI is diagnosed based on a detailed clinical history and examination.
- Consider ambulatory urodynamics or videourodynamics if the diagnosis is unclear after conventional urodynamics.

[C2] Options for treatment [OAB specific]

- If the woman wishes to discuss the options for further management (non-therapeutic interventions and invasive therapy) refer to the MDT and arrange urodynamic investigation to determine whether detrusor overactivity is present and responsible for their OAB symptoms:
  - If detrusor overactivity is present and responsible for their OAB symptoms offer invasive therapy, **or**
  - If detrusor overactivity is present but the woman does not wish to proceed to invasive therapy, offer advice as described in Box C3, **or**
  - If detrusor overactivity is not present refer to MDT for further discussion concerning future management.

[C4] The multidisciplinary team (MDT)

- The MDT for urinary incontinence should include::
  - a urogynaecologist
  - a urologist with a sub-specialist interest in female urology
  - a specialist nurse
  - a specialist physiotherapist
  - a colorectal surgeon with a sub-specialist interest in functional bowel problems, for women with coexisting bowel problems
  - a member of the care of the elderly team and/or occupational therapist, for women with functional impairment.

[C3] Women who choose not to have further treatment at this time

If a woman chooses not to have further treatment for urinary incontinence:

- offer her advice about managing urinary symptoms, **and**
- explain that if she changes her mind at a later date she can book a review appointment to discuss past tests and interventions and reconsider her treatment options.

[C5] MDT process

- Inform any woman wishing to consider surgical treatment for UI about:
  - the benefits and risks of surgical and non-surgical options
  - their provisional treatment plan.
- Include consideration of the woman's child-bearing wishes in the counselling.
- Offer invasive therapy for OAB and/or SUI symptoms only after an MDT review.
- When recommending optimal management the MDT should take into account:.
  - the woman's preference
  - past management
  - comorbidities
  - treatment options (including further conservative management such as OAB drug therapy).
- Inform the woman of the outcome of the MDT review if it alters the provisional treatment plan.
- All MDTs should work within an established regional clinical network to ensure all women are offered the appropriate treatment options and high quality care.

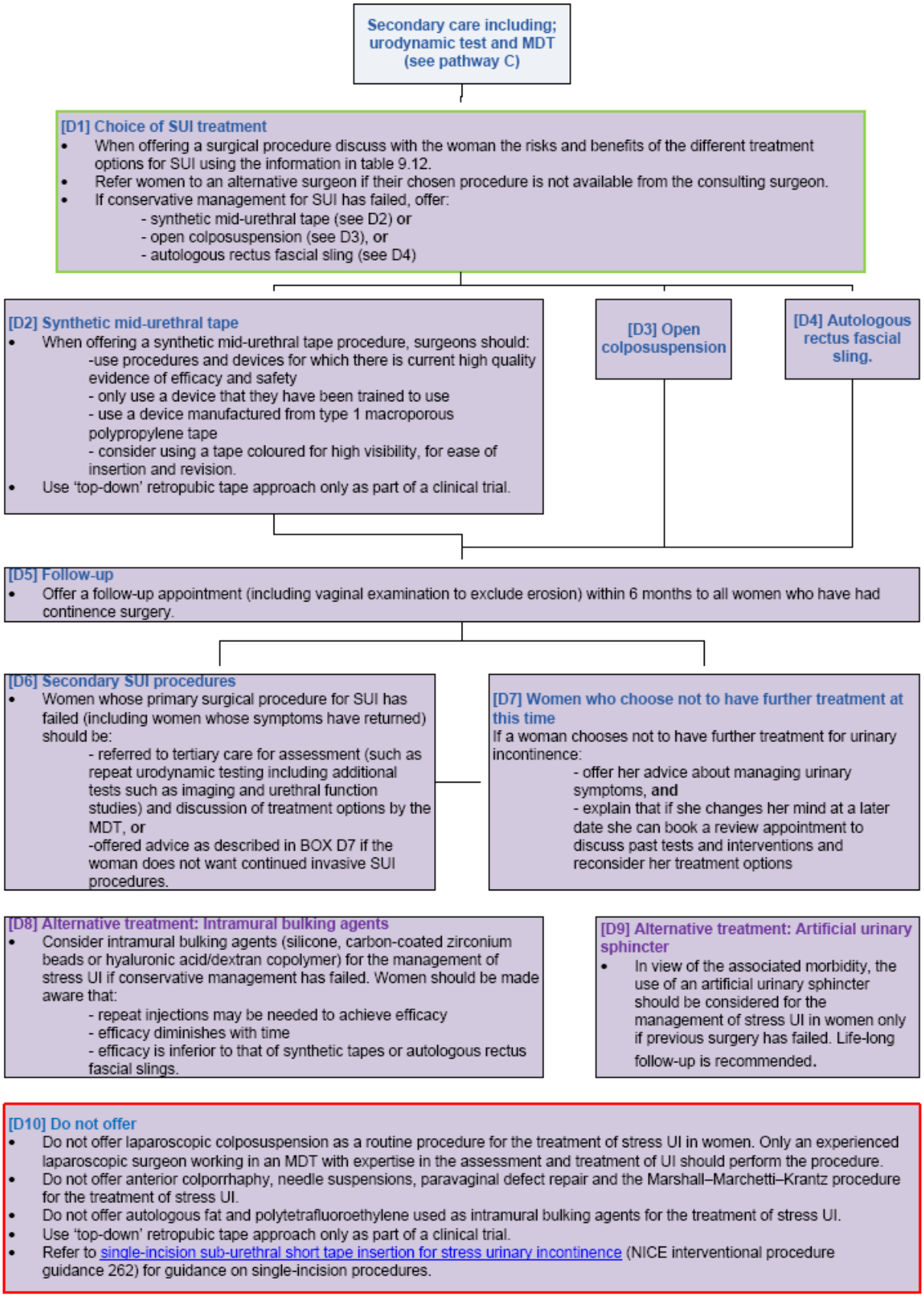
Invasive OAB treatment (see pathway E)

Invasive SUI treatment (see pathway D)

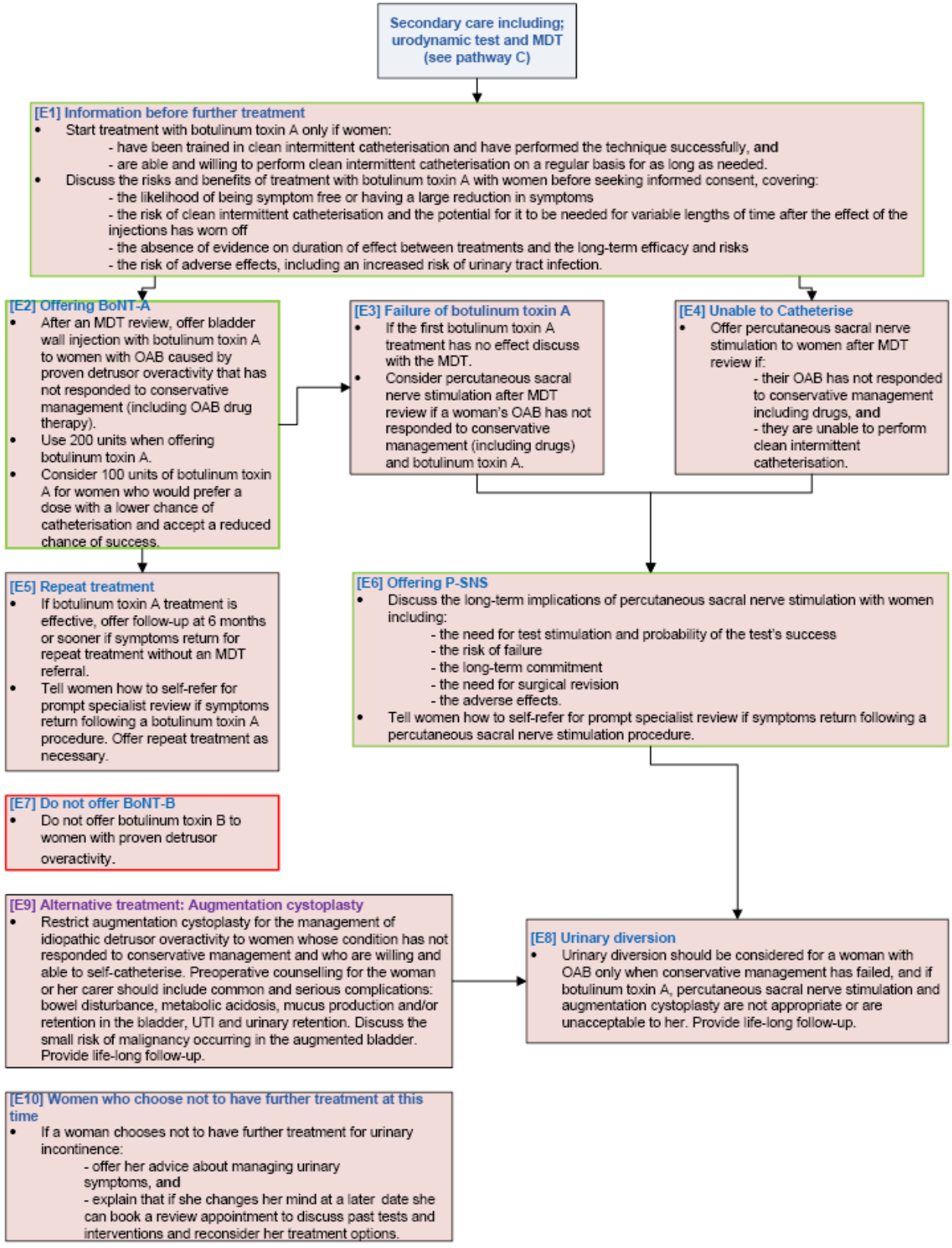
[C6] P-PTNS

- Do not offer percutaneous posterior tibial nerve stimulation for OAB unless:
  - there has been a multidisciplinary team (MDT) review, and
  - conservative management including OAB drug treatment has not worked adequately, and
  - the woman does not want botulinum toxin A or percutaneous sacral nerve stimulation.
- Explain that there is insufficient evidence to recommend the use of percutaneous posterior tibial nerve stimulation to routinely treat OAB.

D – Surgical approaches for SUI



E – Invasive approaches to OAB



F – Referral for specialist intervention and surgeon standards

[F1] Urgent referral

- Refer women with UI who have symptomatic prolapse that is visible at or below the vaginal introitus to a specialist.
- Urgently refer women with UI who have any of the following:
  - microscopic haematuria in women aged 50 years and older
  - visible haematuria
  - recurrent or persisting UTI associated with haematuria in women aged 40 years and older
  - suspected malignant mass arising from the urinary tract.
- In women with UI, further indications for consideration for referral to a specialist service include:
  - persisting bladder or urethral pain
  - clinically benign pelvic masses
  - associated faecal incontinence
  - suspected neurological disease
  - symptoms of voiding difficulty
  - suspected urogenital fistulae
  - previous continence surgery
  - previous pelvic cancer surgery
  - previous pelvic radiation therapy

[F2] Maintaining and measuring expertise and standards for practice

- Surgery for UI should be undertaken only by surgeons who have received appropriate training in the management of UI and associated disorders or who work within an MDT with this training, and who regularly carry out surgery for UI in women.
- Training should be sufficient to develop the knowledge and generic skills documented below. Knowledge should include the:
  - specific indications for surgery
  - required preparation for surgery including preoperative investigations
  - outcomes and complications of proposed procedure
  - anatomy relevant to procedure
  - steps involved in procedure
  - alternative management options
  - likely postoperative progress.
- Generic skills should include
  - the ability to explain procedures and possible outcomes to patients and family and to obtain informed consent
  - the necessary hand–eye dexterity to complete the procedure safely and efficiently, with appropriate use of assistance
  - the ability to communicate with and manage the operative team effectively
  - the ability to prioritise interventions
  - the ability to recognise when to ask for advice from others
  - a commitment to MDT working.
- Training should include competence in cystourethroscopy.
- Operative competence of surgeons undertaking surgical procedures to treat UI or OAB in women should be formally assessed by trainers through a structured process.
- Surgeons who are already carrying out procedures for UI should be able to demonstrate that their training, experience and current practice equates to the standards laid out for newly trained surgeons.
- Only surgeons who carry out a sufficient case load to maintain their skills should undertake surgery for UI or OAB in women. An annual workload of at least 20 cases of each primary procedure for stress UI is recommended. Surgeons undertaking fewer than 5 cases of any procedure annually should do so only with the support of their clinical governance committee; otherwise referral pathways should be in place within clinical networks.
- There should be a nominated clinical lead within each surgical unit with responsibility for continence and prolapse surgery. The clinical lead should work within the context of an integrated continence service.
- A national audit of continence surgery should be undertaken.
- Surgeons undertaking continence surgery should maintain careful audit data and submit their outcomes to national registries such as those held by the British Society of Urogynaecology (BSUG) and British Association of Urological Surgeons Section of Female and Reconstructive Urology (BAUS-SFRU).

G – Alternative conservative management

[G1] Catheters

- Bladder catheterisation (intermittent or indwelling urethral or suprapubic) should be considered for women in whom persistent urinary retention is causing incontinence, symptomatic infections, or renal dysfunction, and in whom this cannot otherwise be corrected. Healthcare professionals should be aware, and explain to women, that the use of indwelling catheters in urgency UI may not result in continence.

[G2] Intermittent urethral catheters

- Offer intermittent urethral catheterisation to women with urinary retention who can be taught to self-catheterise or who have a carer who can perform the technique.

[G3] Indwelling urethral catheters

- Give careful consideration to the impact of long-term indwelling urethral catheterisation. Discuss the practicalities, benefits and risks should be discussed with the patient or, if appropriate, her carer. Indications for the use of long-term indwelling urethral catheters for women with UI include:
  - chronic urinary retention in women who are unable to manage intermittent self-catheterisation
  - skin wounds, pressure ulcers or irritations that are being contaminated by urine
  - distress or disruption caused by bed and clothing changes
  - where a woman expresses a preference for this form of management.

[G4] Indwelling suprapubic catheters

- Indwelling suprapubic catheters should be considered as an alternative to long-term urethral catheters. Be aware, and explain to women, that they may be associated with lower rates of symptomatic UTI, 'bypassing', and urethral complications than indwelling urethral catheters.

[G5] Absorbent products, urinals and toileting aids

- Absorbent products, hand held urinals and toileting aids should not be considered as a treatment for UI. Use them only as:
  - a coping strategy pending definitive treatment
  - an adjunct to ongoing therapy
  - long-term management of UI only after treatment options have been explored.

[G6] Do not use

- Do not recommend complementary therapies for the treatment of UI or OAB.
- Do not use intravaginal and intraurethral devices for the routine management of UI in women. Do not advise women to consider such devices other than for occasional use when necessary to prevent leakage, for example during physical exercise.

Appendix H – Hertfordshire Care Pathway for Urinary Incontinence & Overactive Bladder (HMMC Apr 2014)

Diagnosis and Assessment

Hertfordshire UI & OAB Management Pathway based on NICE Clinical Guideline 171 Sep 2013)

Initial Assessment (Primary Care/HCT)

- Categorise as **stress UI**, mixed UI, **or urgency UI/overactive bladder (OAB).**
- Start initial conservative treatment on this basis.
- In mixed UI, direct treatment to the predominant symptom. If this is stress UI, advise on the benefit of conservative management including OAB drugs before offering surgery.
- Ask patient to complete a **bladder diary** for at least 3 days, covering variations in usual activities (e.g. working and leisure days).
- The use of incontinence-specific quality of life (QoL) scales may be useful to score symptoms and evaluate therapies e.g. ICIQ, BFLUTS and KHQ etc.
- Use urine dipstick tests to detect blood glucose, protein, leucocytes and nitrites. See above table for actions.

	URINE DIPSTICK TEST RESULTS	
	POSITIVE	NEGATIVE
Urinary Tract Infection (UTI) Symptoms	Send a midstream urine sample for culture and antibiotic sensitivity analysis	
	Prescribe appropriate antibiotics pending culture results	***Consider*** prescribing appropriate antibiotics pending culture results
No UTI Symptoms	Do not prescribe antibiotics unless there is a positive urine culture result	UTI unlikely. Do not send an urine sample for culture

- Measure post-void residual urine in women with symptoms of voiding dysfunction or recurrent UTI. If available, use a bladder scan in preference to catheterisation (more acceptable and ↓adverse events).

Consider referral, particularly more complex patients eg significant stress UI or patients with cognitive impairment to the continence nurse at HCT Adult Bladder & Bowel service – see Appdx I for contact details and Referral Form and Patient Information Leaflet This service will assess and manage the patient for conservative treatment, initiate drug treatment (when appropriate) and has close links with secondary care.

- **Identify factors and other diagnosis that may require referral to secondary care for further investigation and treatment as detailed in following table:**

URGENTLY refer	- microscopic haematuria if ≥ 50 years - visible haematuria - recurrent or persisting UTI associated with haematuria if ≥ 40 years - suspected pelvic mass arising from the urinary tract		
Refer	- symptomatic prolapse visible at or below the vaginal introitus - palpable bladder on bimanual or physical examination after voiding		
Consider referring	- persisting bladder or urethral pain - associated faecal incontinence - previous pelvic radiation therapy	- clinically benign pelvic masses - suspected neurological disease - voiding difficulty	- suspected urogenital fistulae - previous continence or pelvic cancer surgery

Conservative Management (Primary Care/HCT)

Consider referral to continence nurse at community (HCT) continence service for conservative management – see Appdx I for contact details and Referral Form and Patient Information Leaflet

1st Line

Stress UI
- Pelvic floor muscle training
- Lifestyle changes and patient education

Mixed UI
- Pelvic floor muscle training
- Bladder training
- Lifestyle advice and patient education

OAB with or without Urge UI
- Bladder training
- Lifestyle changes and patient education

OAB Drug Treatment only if 1st line management tried & failed (see drug algorithm in Appendix B)

If unsuccessful, refer to secondary care for further investigation and treatment options OR consider referral to continence nurse at HCT Adult Bladder & Bowel service – see Appdx I for contact details and Referral Form and Patient Information Leaflet

FIRST LINE CONSERVATIVE MANAGEMENT (see Appendix I for resource materials)

Pelvic floor muscle training (PFMT): **1st-line treatment** for stress or mixed UI.
- Digital assessment to confirm pelvic floor muscle contraction before PFMT.
- Trail of supervised training lasting at least 3 months. PFMT should consist of at least 8 contractions, 3 times a day.
- If PFMT is beneficial, continue an exercise programme.
- Consider electrical stimulation and/or biofeedback in patient who cannot actively contract their pelvic floor muscles to aid motivation and adherence

Bladder training: 1st-line treatment for urge UI/OAB or mixed UI – training should last a minimum of 6 weeks.
- In patient with OAB who also have cognitive impairment, prompted and timed toileting programmes may help ↓ leakage episodes.
- If frequency is still troublesome after training, consider combination of OAB drug with bladder training.

Lifestyle changes: 1st-line treatment for urge UI/OAB or mixed UI. Modification of fluid intake, losing weight if BMI>30 and ↓caffeine

Patient Education: Provide information on the condition, management and outcomes (Appdx I for resource materials)

Patients who do not want further treatment: Offer advice on managing symptoms and with the option for review appointment and further treatment if she changes her mind. This applies to any stage of the management pathway.

Alternative Conservative Treatments See Appendix G for information on use of these devices and products

Further Assessment & Urodynamic Testing (Secondary Care)

- For the few patients with pure stress, UI multi-channel cystometry is not routinely necessary before primary surgery
- Use **multi-channel filling and voiding cystometry before surgery** for UI if there are OAB symptoms and clinical suspicion of detrusor over activity **OR** there are symptoms of voiding dysfunction or anterior compartment prolapse **OR** there has been previous surgery for stress UI.

Surgical/ Invasive Management (Secondary Care)

Stress UI
- Discuss the risks and benefits of surgical and non-surgical options. Use NICE information to facilitate discussion: http://publications.nice.org.uk/urinary-incontinence-cg171/recommendations (after section 1.11.9). Consider the woman's child-bearing wishes during the discussion.
- If conservative treatments have failed, consider:
  - Synthetic mid-urethral tape
  - Open colposuspension
  - Autologous rectus fascial sling
- Offer follow-up review 6-8 weeks following surgery

Secondary Stress UI procedures
Where primary SUI surgical procedure has failed/ symptoms return:
- Refer to specialist care for further assessment
- Consider duloxetine (specialist initiation only)
- Or if woman does not want continued invasive SUI procedures, offer advice on managing symptoms with option for review appointment and further treatment if she changes her mind

Alternative treatments
- Intramural bulking agents (e.g. silicone)
- Artificial urinary sphincter if previous surgery has failed.

OAB with or without Urge UI
- Discuss the risks and benefits of surgical and non-surgical options. Consider the woman's child-bearing wishes during the discussion.
- **Botulinum toxin type A** – consider for idiopathic detrusor or neurogenic detrusor overactivity in those willing and able to self catheterise.
  - Discuss the likelihood of symptom reduction; risk of self-catheterisation and variable durations of use after injections worn off; lack of evidence in long-term efficacy, risks and duration of efficacy; and risk of S/Es (↑UTI risk).
  - See HMMC decision for treatment initiation criteria – E&NHCCG and HVCCG
- **Percutaneous sacral nerve stimulation (P-SNS):** Offer if unable to self catheterise or if botulinum toxin A has failed.
  - Discuss long term implications including test stimulation and success; risk of failure; long-term commitment; need for surgical revision and S/Es.
- **Percutaneous posterior tibial nerve stimulation (P-PTNS):**Offer if woman does not want botulinum toxin A or P-SNS.
- **Augmentation cystoplasty** – restrict to those willing and able to self catheterise; explain common and serious complications and the small risk of malignancy in the augmented bladder.
- **Urinary diversion –** consider if botulinum toxin A, sacral nerve stimulation, and augmentation cystoplasty are not appropriate or unacceptable.

Appendix I

Useful Contact Details and Resource Materials – Patient QOL Questionnaires/Leaflets/Information

- **Hertfordshire Community Trust Incontinence (Adult Bladder and Bowel) Service: -**
  - **Information for Healthcare Professionals:** http://www.hertschs.nhs.uk/services/adult/Adult_Bladder_Bowel_Care/For_Healthcare_Professionals.aspx
  - **Service Information Leaflet:** http://www.hertschs.nhs.uk/Library/Adult_Services/Adult_Bladder_and_Bowel_Care/Bladder%20Bowel%20GP%20Leaflet%20July%202013%20v3.pdf
  - **Patient Information Leaflet:** http://www.hertschs.nhs.uk/Library/Adult_Services/Adult_Bladder_and_Bowel_Care/Patient%20Information%20Pamphlet%20July%202013%20v3.pdf
  - **Referral Form:** http://www.hertschs.nhs.uk/Library/Adult_Services/Adult_Bladder_and_Bowel_Care/Referral_Form_on-line_2011.doc
- **Bedfordshire and Luton Incontinence Service provided by SEPT** http://www.sept.nhs.uk/Community-Health/Bedfordshire-Community-Health-Services/Continence-Service.aspx
- **Patient Information on Urinary Incontinence and Further Reading:**
  - NHS Choices: http://www.nhs.uk/Conditions/Incontinence-urinary/Pages/Introduction.aspx
  - Bladder & Bowel Foundation: http://www.bladderandbowelfoundation.org/bladder/bladder-problems.asp
- **Patient Information on Overactive Bladder OAB:**
  - Patient UK: http://www.patient.co.uk/health/overactive-bladder-syndrome
  - Bladder & Bowel Foundation: http://www.bladderandbowelfoundation.org/bladder/bladder-problems/overactive-bladder.asp
- **Patient Incontinence-Specific QoL & symptom scoring questionnaires:** http://www.nice.org.uk/nicemedia/live/14271/65356/65356.pdf The following scoring questionnaires are available free of charge:
  - Kings Health Questionnaire (KHQ): http://www.nice.org.uk/nicemedia/live/14271/65298/65298.pdf
  - International Consultation on Incontinence Questionnaire (ICIQ) – permission required: http://www.icig.net/structure.html
  - Bristol Female Urinary Tract Symptoms Questionnaire (BFLUTS) – permission required: http://www.icig.net/structure.html
  - Norwegian Stress and Urge Incontinence Questionnaire(SUIQQ): http://www.nice.org.uk/nicemedia/live/14271/65268/65268.pdf

  There is a charge for the following questionnaire: -
  - Incontinence Quality of Life Questionnaire (IQOL): http://depts.washington.edu/seaqol/IQOL
- **Bladder Diary:** http://www.hertschs.nhs.uk/Library/Adult_Services/Adult_Bladder_and_Bowel_Care/Bladder%20Record%20Chart%20V2.doc
- **Bladder Training:** http://www.patient.co.uk/health/overactive-bladder-syndrome
- **Lifestyle Interventions:** http://www.nhs.uk/Conditions/Incontinence-urinary/Pages/Treatment.aspx
- **Pelvic Floor Exercises**
  - Patient UK: http://www.patient.co.uk/health/pelvic-floor-exercises
  - Bladder and Bowel Foundation Fact Sheet (registration required): http://www.bladderandbowelfoundation.org/resources/fact-sheets.asp
- **Patient Information on OAB drugs:** http://www.nhs.uk/medicine-guides/pages/MedicineForCondition.aspx?condition=Incontinence, urinary
- **NICE Clinical Guideline 171 – Urinary Incontinence in Women** http://guidance.nice.org.uk/CG171
- **Hertfordshire Medicines Management Committee (HMMC) Decisions:**
  - **Mirabegron for OAB:** http://www.hertsvalleysccg.nhs.uk/uploads/file/Pharmacy/Local%20Decisions/Mirabegron%20for%20overactive%20bladder%20TA290%20201309%20%20(HMMC).pdf http://www.enhertsccg.nhs.uk/sites/default/files/Pharmacy/Local_Decisions/Mirabegron%20for%20overactive%20bladder%20TA290%20201309%20%20%28HMMC%29.pdf
  - **Botulinum toxin type A for OAB:** http://www.hertsvalleysccg.nhs.uk/uploads/file/Pharmacy/Local%20Decisions/Botulinum%20toxin%20type%20A%20for%20OAB%20201211(HMMC).pdf http://www.enhertsccg.nhs.uk/sites/default/files/Pharmacy/Local_Decisions/Botulinum%20toxin%20type%20A%20for%20OAB%20201211%28HMMC%29.pdf
- **Bedfordshire & Luton Joint Prescribing Committee (JPC) Decisions:**
  - **Botulinum toxin type A for OAB:** http://www.gpref.bedfordshire.nhs.uk/referrals/bedfordshire-and-luton-joint-prescribing-committee-(jpc).aspx
    - **Mirabegron for OAB: Approved in line with NICE TA290.**
- **Further information**
  - **The Bladder & Bowel Foundation** - a charitable organisation providing information and support for patients, carers and healthcare professionals www.bladderandbowelfoundation.org
  - **Promocon** - An organisation promoting awareness and providing information and advice to patients and health