Management of Female Over Active Bladder - Full Clinical Guideline

Reference No.: UHDB/Gynae/02:23/B4

Contents

1. Introduction

Overactive bladder (OAB) is defined as urinary urgency, usually with urinary frequency and nocturia, with or without urge incontinence, and in the absence of urinary tract infection or any other obvious pathology. These symptoms are thought to be due to involuntary contraction of the detrusor muscles of the bladder during the filling phase of the micturition cycle. Even though there may be no identifiable cause for OAB, the commonly associated risk factors include multiple pregnancies, obesity, previous pelvic surgery, as well as any pathology that interferes with the nerve function to the bladder and the urinary system such as diabetic neuropathy, multiple sclerosis, stroke and spinal cord injuries.

2. Purpose

This guideline covers assessing and managing overactive bladder in women who are 18 years of age and above.

3. Abbreviations

BSUG	-	British Society of Urogynaecology
ICS	-	International Continence Society
OAB	-	Over Active Bladder
MDT	-	Multidisciplinary Team
NICE	-	National Institute for Health and Care Excellence
POP-Q:	-	Pelvic Organ Prolapse Quantification
SUI	-	Stress Urinary Incontinence
UTI	-	Urinary Tract Infection

4. Assessment at the Urogynaecology Outpatient Clinic by Named Consultant Unit

A detailed history and a thorough physical examination should be done using the specialised urogynaecology template in the outpatient clinic to categorize the woman's urinary incontinence either into stress urinary incontinence, mixed urinary incontinence or overactive bladder. Concurrent pelvic organ prolapse, if any, should also be assessed, using the ICS POP-Q classification system.

During the clinical assessment, identification of relevant predisposing and precipitating factors and other diagnoses is essential as this may require referral for additional investigations and treatment.

It is recommended that any symptom related to bowel incontinence should be addressed, unless declined, prior to initiating any intervention in urogynaecology.

It is also recommended to undertake a routine digital assessment to confirm pelvic floor muscle contraction prior to the use of supervised pelvic floor muscle training for the treatment of urinary incontinence. Initial assessment should serve as a guide for management of the patient's symptoms. Any significant anterior compartment prolapse [Stage 2 or more warrants addressing prior to any surgical intervention for urinary incontinence.

In mixed urinary incontinence, initial treatment should be directed towards the predominant symptom. If stress urinary incontinence is the predominant symptom, then discuss the benefit of non surgical treatment including medication for OAB before offering surgery for SUI.

Urine Testing
It is recommended at the first assessment to undertake a urine dipstick test in all women presenting with urinary incontinence, to detect the presence of blood, glucose, protein, leucocytes and nitrites in the urine, which in turn may suggest a urinary tract infection.

Women symptomatic for UTI with a positive urine dip test should have a mid-stream urine sample sent for microbiology, culture and analysis for antibiotic sensitivities. Appropriate course of antibiotics should be prescribed, pending the culture results.

Women symptomatic for UTI with negative urine dip results should still have mid-stream urine sample sent for culture and analysis of antibiotic sensitivities. Consider the prescription of antibiotics pending culture results.

Asymptomatic women for UTI with a positive urine dip should have mid-stream urine sent for culture and analysis of antibiotic sensitivities. Do not offer antibiotics without midstream urine culture. If a woman does not have symptoms of UTI and her urine tests negative for either leucocytes or nitrites, do not send a urine sample for culture.

5. Management Options

Women with overactive bladder symptoms should have all the options of management enumerated and discussed in detail during the initial visit. The management of this condition requires a discussion with the woman on the benefits of non-surgical management, including lifestyle modification prior to offering surgery.

Non-Surgical Management (first line)

a) Bladder diaries and assessment of post void residue should be offered to all women as part of the initial assessment of women with mixed urinary incontinence or overactive bladder. They should be encouraged to complete a minimum of 3 days of the diary and this should include variations in their usual activities, such as both working and leisure days.

b) Lifestyle modification should be reinforced including weight loss (if BMI >30), abstaining from caffeine and other bladder irritants like nicotine, as well as restriction of fluid intake (less than 2L per day)

c) Referral to the continence team for pelvic floor muscle training, which may include electrical stimulation, for a duration of at least 3 months, if mixed urinary incontinence

d) Bladder retraining patient information is reiterated at the first visit and a referral is made to the continence team for the same.

If there was no success with conservative management, we should consider medical management as the next step.

Medical Management (second line)
Prior to offering medical management to women with OAB or mixed urinary incontinence with urge predominance, patients should be made aware of the success rate of the medication and common adverse side effects (which might suggest that the medication has started to function). Patients also need to be made aware that the medication may not start working immediately as it can take about 4 weeks to begin to see significant effects, and that their symptoms may continue to improve as they continue with the medication. It should also be explained that the long term effect on cognitive function is uncertain.

The common side effects for anticholinergics include dry mouth, dry eyes, constipation, dizziness, drowsiness, flushing, headache, palpitations, and vomiting. These medications are generally contraindicated in patients with myasthenia gravis, glaucoma, liver and kidney disease, pyloric stenosis, severe ulcerative colitis, significant bladder outflow obstruction and toxic megacolon. There is evidence of association of Alzheimer's disease and dementia with prolonged use of anticholinergics in patients above the age of 65 years *[Grey et al Jama Intern. Med. March 2015; 175 (30): 401-407].*

Medical management options include:

a) Oxybutynin or tolterodine or solifenacin or trospium chloride or any other anti muscarinic might be considered according to clinical situation and depending upon clinician's discretion.

b) Mirabegron should be considered in women who are refractory to the above medical therapy and might even be considered as first line medication in patients above the age of 65 years as well as those on polytherapy or high anticholinergic burden. A commonly encountered side effect with this medication is an increase in blood pressure, and hence it is contraindicated in women with poorly controlled hypertension, as well as in patients with renal and hepatic impairment. It should be used with particular caution in women with cystic fibrosis and best avoided in those with cardiovascular disease. It is advisable to do a baseline blood pressure check prior to commencing on this treatment and then keep an intermittent check. Women with hypertension, being commenced on Mirabegron, need more frequent blood pressure checks.

c) The use of desmopressin may be considered specifically in patients with troublesome nocturnal polyuria with caution about the development of hyponatremia, especially on administration without restricting fluid intake.

Do not offer oxybutynin to older women who are at higher risk of sudden deterioration in their physical or mental health.

Efficacy of treatment could either be evaluated by the patient's GP, continence advisors or the specialist as the case might be, and if found refractory to medical management, a urodynamic evaluation should then be organised.

6. Further Management for those not Responding to Treatment

Patients refractory to lifestyle modification and medical management and keen on further treatment should be offered intravesical Botulinum Toxin A and the risks and benefits discussed with them. The case is further discussed at the appropriate urogynaecology MDT and arrangements made for consideration of intravesical botulinum toxin. Neuromodulation [sacral nerve stimulation] as a treatment option should also be discussed with patients and the success and risks enumerated and if patient wishes to proceed, the case should be discussed at the local urogynaecology MDT and arrangements made for a subsequent referral to Leicester or Nottingham or Birmingham.

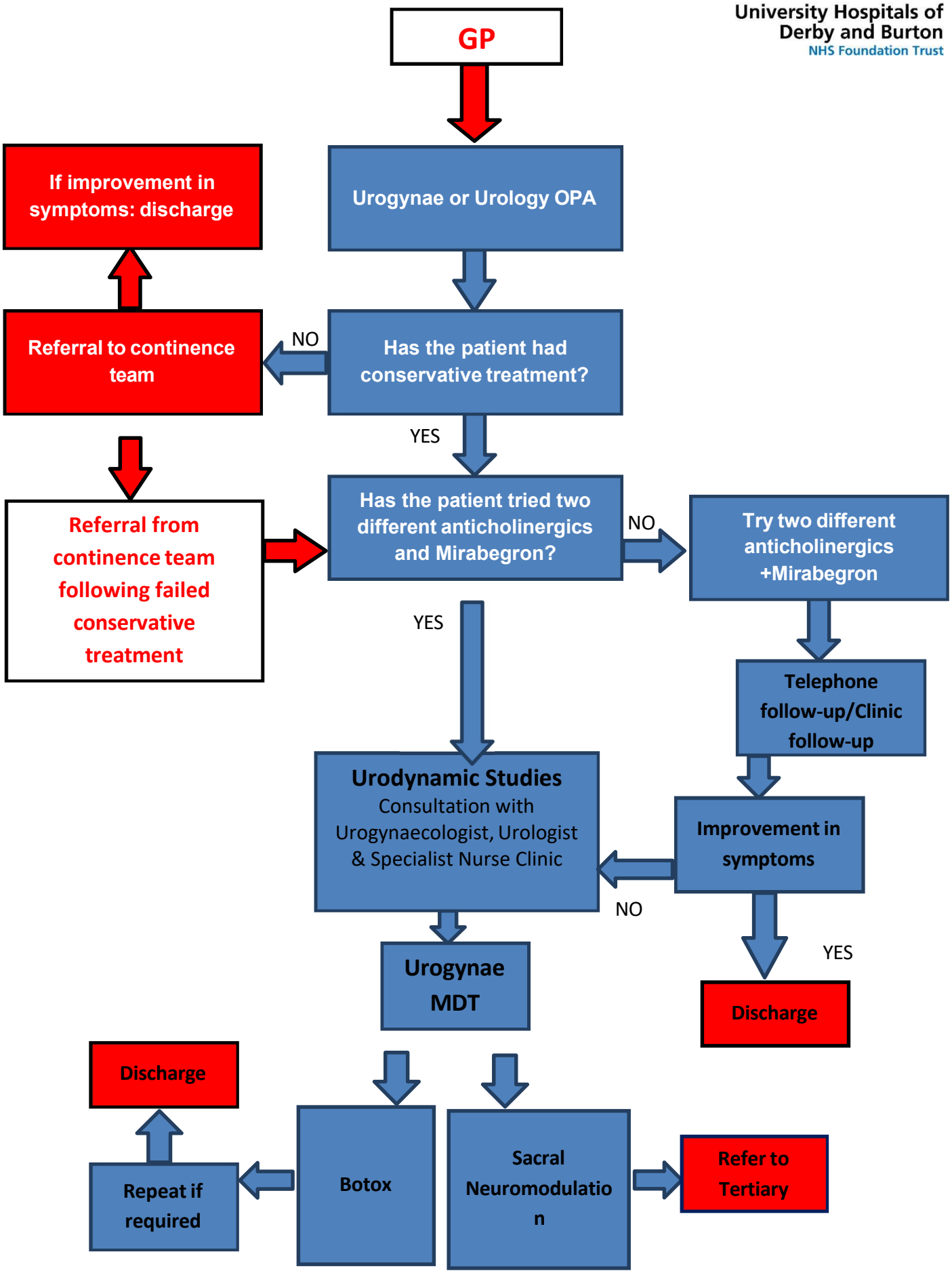
7. Monitoring Compliance and Effectiveness

As per agreed audit forward programme

Appendix A

University Hospitals of Derby and Burton NHS Foundation Trust

Overactive Bladder (OAB) Pathway



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