

Pharmacological Management of Lower Urinary Tract Symptoms (LUTS) in Men

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Pharmacological Management of Lower Urinary Tract Symptoms (LUTS) in Men

Initial Clinical assessment should include a full medical history, U+Es, PSA, creatinine, urinalysis, international prostate symptom score (IPSS, prostate examination and urinary frequency volume chart.

Consider referral if

- LUTS complicated by recurrent urinary tract infections
- Retention
- Suspected renal impairment due to lower urinary tract dysfunction
- Suspected urological/prostate cancer
- Stress urinary incontinence
- Bothersome LUTS that has not responded to conservative management or drug treatment

Obstructive Symptoms

Mild To Moderate LUTS (IPSS ≤19)

Offer

Alfuzosin, tamsulosin, doxazosin or terazosin

(25% risk of postural hypotension with doxazosin & terazosin)

Review 4-6 weeks

If OK and prostate >30g or PSA>1.4ng/ml consider adding finasteride or dutasteride. Then review every 6-12 months thereafter.

Patients should be counselled about the possibility of developing high grade prostate cancer with use of finasteride & dutasteride.

Subsequent assessment must include a rectal examination & PSA.

Bothersome Moderate to Severe LUTs (IPSS ≥20)

Start

-Alfuzosin, tamsulosin, doxazosin or terazosin

(25% risk of postural hypotension associated doxazosin & terazosin)

-Refer to ACE for formal flow rate assessment and bladder scan

Storage Symptoms

If overactive bladder is suspected offer

- Supervised bladder training for 3 months- refer to ACE
- Lifestyle advice
- Advice on fluid intake
- Self purchase of containment products

Ensure no outflow obstruction before drug treatment

Offer

1st - IR Oxybutynin or Tolterodine

2nd - MR Oxybutynin or Tolterodine

3rd – Mirabegron can be considered where patients have:

- high anticholinergic load
- contraindication to anticholinergics
- unacceptable side effects to anticholinergics
- ineffective treatment with anticholinergics

NB Full benefits may not be seen until the drug has been taken for 4 weeks.

Nocturnal Polyuria

Consider late afternoon loop diuretic.

Review 2 – 4 weeks, then regular reviews as appropriate.

Tadalafil Hospital Prescribing Only

Moderate to Severe LUTS with Erectile Dysfunction
- Tadalafil 5mg daily

Alpha Blockers

| Medication | Preparations | Dose | Review | Additional information |
|------------|--|--|---|--|
| Alfuzosin | <ul style="list-style-type: none"> Immediate release tablets: 2.5mg Tablets MR: 10mg | <p>2.5mg TDS. First dose MUST be taken at bedtime. Age ≥65 years: 2.5mg BD initially. Mild to moderate liver insufficiency start at 2.5mg OD; increase to 2.5mg BD according to clinical response. Renal insufficiency, start at 2.5mg BD. Maximum dose 10mg daily.</p> <p>10mg daily Avoid MR tablets if eGFR <30ml/min/1.73m²</p> | Review 4 – 6 weeks then every 6 – 12 months | Alfuzosin is contraindicated in liver insufficiency |
| Tamsulosin | Capsules MR: 400mcg | <p>400 mcg after breakfast or the first meal of the day. Avoid if eGFR <10ml/min/1.73m²</p> | | Contraindicated in severe liver insufficiency |
| Doxazosin | <ul style="list-style-type: none"> Immediate release tablets: 1, 2, 4 mg | 1mg at bedtime; increase to 2mg after 1 -2 weeks to a maximum of 8mg. Usual recommended dose 2 – 4mg. | | Monitor patients for hypotension |
| Terazosin | <ul style="list-style-type: none"> Tablets: 2, 5, 10mg <p>2mg tablet can be divided in to equal halves</p> | <p>1 mg x 7days; then 2mg x 14 days; then 5mg x 7 days. Doses must be taken at bedtime. Maximum dose 10mg. The maintenance dose is usually 5 to 10mg once daily.</p> | | |

Anticholinergics

| Medication | Preparations | Dose | Review | Notes |
|-------------|--|--|---|--|
| Oxybutynin | <p>Tablets immediate release: 2.5mg, 3mg, 5mg</p> <p>Tablets MR: 5mg and 10mg</p> <p>Restricted use Patch: 36mg – restricted to patients with unacceptable adverse effects to oral therapy.</p> | <p>Initial 5mg BD-TDS; usual daily dose is 10-15mg. Maximum daily dose 20mg. Elderly: 2.5mg BD. The lowest effective dose should be used.</p> <p>Initially 5mg OD; Usual dose 10mg daily; maximum dose 20mg.</p> <p>Apply patch twice weekly.</p> | Review 4 – 6 weeks until stable, then every 6 – 12 months | <p>Oxybutynin patch should not be used routinely.</p> <p>Use with caution in renal or liver impairment</p> |
| Tolterodine | <p>Tablets immediate release: 1mg, 2mg</p> <p>Tablets MR: Neditol XL 4mg (cost effective brand August 2016)</p> | <p>2mg BD; reduce to 1mg BD when eGFR ≤ 30ml/min/1.73m² or side effects.</p> <p>4mg OD; reduce to 2mg in liver impairment, eGFR ≤ 30ml/min/1.73m² or side effects.</p> | | |

Beta 3 Adrenoceptor Agonist

| Medication | Preparations | Dose | Review | Additional information |
|---|--|---------|---|---|
| Mirabegron (Only indicated when anticholinergics are contraindicated, ineffective or have unacceptable side-effects). | Prolonged release tablets :25mg, 50mg | 50mg OD | Review 4 – 6 weeks until stable, then every 6 – 12 months | Reduce dose to 25mg if eGFR is less than 30 mL/minute/1.73 m ² and in moderate liver impairment. Contraindicated in severe liver impairment. |

5-alpha reductase inhibitor

| Medication | Preparations | Dose | Review | Additional information |
|-------------|------------------|--|--|---|
| Finasteride | Tablets: 5mg | 5mg OD. | Review 3–6 months and then every 6–12 months | Patients should be counselled about the possibility of developing high grade prostate cancer and subsequent assessment must include a rectal examination. May need to be taken for up to 6 months before a response is seen Contraindicated in severe liver impairment |
| Dutasteride | Capsules: 500mcg | 500mcg OD Avoid in patients with known soya and peanut allergies | | |

Nocturnal polyuria

| Medication | Preparations | Dose | Review | Additional information |
|---|--------------------------|---------------------------------|--|--|
| <p>Furosemide (off label for men with nocturnal polyuria)</p> | <p>Tablets: 20, 40mg</p> | <p>20 - 40mg late afternoon</p> | <p>Review 2–4 weeks after starting treatment and after each dose increase and regularly as appropriate. Review 5 – 7 days for higher-risk people (including people with existing renal impairment and people on combination therapy). If the person's clinical condition changes or a potential interacting drug is added.</p> | <p>Furosemide may worsen urinary flow if prostate is enlarged or there is impaired micturition.</p> <p>Baseline renal function and electrolytes should be completed before starting treatment. Monitor renal function and electrolytes during treatment.</p> |

Tadalafil (Hospital Prescribing Only) Moderate to Severe LUTS with Erectile Dysfunction

| Medication | Preparations | Dose | Review | Additional information |
|--|--------------|--|--|---|
| Tadalafil (Hospital Prescribing Only) | Tablets: 5mg | 5mg daily Avoid in severe renal impairment | Review after 6 – 8 weeks & continue if effective then regular review as appropriate. | Contraindicated <ul style="list-style-type: none"> • loss of vision in one eye because of non-arteritic anterior ischaemic optic neuropathy (NAION), regardless of whether this episode was in connection or not with previous PDE5 inhibitor exposure • MI in last 90 days • Stroke in last 6 months • Angina during intercourse • Unstable angina • NYHA Class 2 or greater HF • Uncontrolled arrhythmias • Hypotension • Uncontrolled hypertension |

References

- NICE 2010 CG97 ‘Lower urinary tract symptoms in men: management’, available at: <https://www.nice.org.uk/guidance/cg97> (Accessed: 23/03/16)
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- Summaries of Product Characteristics, available at: <https://www.medicines.org.uk/emc/> (Accessed: 13/04/2016)