Male LUTS Clinical Guideline – adapted from NICE CG-97

- Male LUTS consist of voiding symptoms, storage symptoms or both.
- Storage symptoms include frequency, nocturia, urgency and incontinence.
- Voiding symptoms include hesitancy, poor flow, intermittency, incomplete emptying, dribbling

**History**
- Record of voiding and storage symptoms
- Medical history including prior surgery
- Medication history
- IPSS questionnaire if available

**Physical examination**
- Digital rectal examination
- Inspection of foreskin and urethral meatus

Initial tests
- Urine analysis (dipstick)
- Flow rate if available
- Post-void bladder scan if available
- Consider blood tests including PSA
- Frequency volume chart if available

Initial management
- Exclude nocturnal polyuria from frequency-volume chart (see Box 5)
  - calculate overnight urine output (includes first morning void)
  - should be < 33% total daily urine output
- Urinary symptoms not affecting QoL may not need immediate intervention
- Characterise symptoms:
  - storage and/or voiding symptoms
  - severity (eg IPSS)

**Refer to Urology**
- Dipstick haematuria
- Post-void scan > 250ml
- Elevated age-specific PSA (see over)
- Renal impairment thought to be due to lower urinary tract dysfunction

**Abbreviations**
- IPSS: International Prostate Symptom Score
- LUTS: Lower Urinary Tract Symptoms
- PSA: Prostate Specific Antigen
- UTI: Urinary Tract Infection
- OAB: Over Active Bladder
- QoL: Quality of Life

**Age-specific PSA levels**
- 40-49: < 2.5
- 50-59: < 3.0
- 60-69: < 4.0
- 70+: < 5.0

N.B. Finasteride causes a decrease in Serum PSA concentrations by approximately 50% in patients with BPH even in the presence of prostate Cancer.
Male LUTS Clinical Guideline – adapted from NICE CG-97

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  - storage and/or voiding symptoms
  - severity (IPSS)
### Box 1: Alpha-blockers

Common side effects: light-headedness, postural hypotension, retrograde ejaculation

<table>
<thead>
<tr>
<th>Medicine</th>
<th>Dose</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doxazosin</td>
<td>4 mg od</td>
<td>£1.00 / 28d</td>
</tr>
<tr>
<td>Tamsulosin MR</td>
<td>400 micrograms od</td>
<td>£3.61 / 28d</td>
</tr>
<tr>
<td>Alfuzosin MR</td>
<td>10 mg od</td>
<td>£11.68 / 28d</td>
</tr>
</tbody>
</table>

Review at 6 weeks

### Box 2: 5-Alpha reductase inhibitors (5-ARI)

Common side effects: reduced libido, impotence

<table>
<thead>
<tr>
<th>Medicine</th>
<th>Dose</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finasteride</td>
<td>5 mg od</td>
<td>£1.18 / 28d</td>
</tr>
<tr>
<td>Dutasteride</td>
<td>500 micrograms od</td>
<td>£3.00 / 28d</td>
</tr>
</tbody>
</table>

Review at 3-6 months

### Box 3: Combination therapy (Alpha-blocker and 5-ARI) – doses as in boxes above

<table>
<thead>
<tr>
<th>Medicine</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finasteride + Doxazosin</td>
<td>£2.18 / 28d</td>
</tr>
<tr>
<td>Combodart®(Dutasteride/tamsulosin)</td>
<td>£18.48 / 28d</td>
</tr>
<tr>
<td>Dutasteride + Tamsulosin</td>
<td>£6.61 / 28d</td>
</tr>
</tbody>
</table>

Review at 6 weeks, then 3-6 months

### Box 4: Anti-cholinergics / OAB drugs

See OAB guidelines for full details

- Oxybutynin or Tolterodine are first line agents unless contraindicated
- Second line anticholinergics including Propiverine, Darifenacin, Fesoterodine, Solifenacin and Trospium
- Mirabegron (beta-3 agonist) should be considered if:
  - anticholinergics contraindicated,
  - severe side-effects with anti-cholinergics
  - when at least 2 anti-cholinergics not effective

### Box 5: Nocturia and nocturnal polyuria

- Consider nocturnal polyuria diagnosis where nocturia is a dominant symptom
  - frequency volume chart to determine fluid input & urine output
  - calculate overnight urine output (includes first morning void)
  - should be < 33% total daily urine output

- Investigate possible causes, for example:
  - Check urine dipstick for glucose and blood sugar (BM stick)
  - Check for ankle oedema and evidence of heart failure
  - Check medications (e.g. diuretics taken in evening)
  - Consider obstructive sleep apnoea

Possible management

- Fluid management (reduce evening fluid intake)
- Consider furosemide 40 mg taken 6 hours before bedtime

N.B. Tadalafil (Cialis®) is not recommended for the treatment of BPH (non-formulary and grey traffic lighted)
Male LUTS – Specialist Assessment

• Initial management should follow the above pathway

History and examination
• As above

Initial specialist investigations
• IPSS questionnaire
• Frequency / volume chart
• Urine dipstick
• Flow rate and bladder scan
• Offer PSA if prostate cancer or symptomatic prostate enlargement suspected

- Recurrent / persistent UTI
- Haematuria
- Sterile pyuria
- Pain
- Suspected urethral stricture (eg based on flow rate trace)

Yes → Consider cystoscopy + renal ultrasound scan

No →

Chronic retention (post-micturition residue > 250ml)

Yes → Check serum creatinine + renal ultrasound scan

No →

Hydronephrosis or impaired renal function associated with retention

Yes → Catheterise (Consider ISC first)

No →

LUTS affecting QoL or bladder stone or recurrent UTI

Yes → Consider definitive surgery

No → Surveillance if needed

LUTS not affecting QoL

Evidence of bladder outflow obstruction:
• Flow rate < 15 ml / s (voided volume > 150ml)
• Storage symptoms (OAB) not dominant
• No previous bladder outlet surgery (eg TURP)

Yes → Surgery (eg TURP)

No → Video urodynamics recommended