

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

- Prior prostate surgery
- Suspicion of cancer
- Tight urethral meatus or foreskin
- History of haematuria
- Incontinence
- Persistent / recurrent UTI

Refer to Urology

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

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

Satisfactory

Satisfactory

Initial management

- Exclude nocturnal polyuria from frequency-volume chart (see Box 5)
 - overnight urine output should be < 33% total daily urine output
- Non-bothersome urinary symptoms may not need immediate intervention
- Characterise symptoms:
 - storage and/or voiding symptoms
 - severity (IPSS)

Dominant storage symptoms (OAB)

See Overactive Bladder Guideline

Moderate / severe voiding symptoms (IPSS > 7)

Consider alpha blocker (Box 1)

Voiding symptoms and significant prostate enlargement (> 30g or PSA > 1.4)

Consider 5-ARI (Box 2)

Moderate / severe voiding symptoms (IPSS > 7)

AND
Significant prostate enlargement (> 30g or PSA > 1.4)

Consider alpha blocker **AND** 5-ARI (Box 3)

Continue

Satisfactory

Review

Refer to Urology

Significant OAB (storage) symptoms

Consider adding anti-cholinergic (Box 4)

Male LUTS Guideline – drug therapy

Box 1: Alpha-blockers

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

Alfuzosin XL	10 mg od	£11.68 / 28d
Doxazosin	4 mg od	£1.21 / 28d
Tamsulosin	400 micrograms od	£4.12 / 28d prescribe as capsules – tablets v. expensive

- Review at 6 weeks

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

Common side effects: reduced libido, impotence

Finasteride	5 mg od	£1.68 / 28d
Dutasteride	500 micrograms od	£18.48 / 28d

- Review at 3-6 months

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

Finasteride + Doxazosin	£2.89 / 28d
Combodart® (Dutasteride/tamsulosin)	£18.48 / 28d
Dutasteride + Tamsulosin	£22.60 / 28d

- Review at 6 weeks and then 3-6 months

Box 4: Anti-cholinergics

This list is not in order of suggested use and choice of second line agent should take into account possible advantages of specific agents and cost. Oxybutynin is recommended as first-line medication by NICE CG-40. Common side effects: dry mouth, dry eyes.

Drug	Potential advantages	Cost/28d
Oxybutynin 5 mg po tds	Cheapest drug available	£8.43
Darifenacin 7.5-15mg od	May have fewer CNS side-effects	£20.90
Fesoterodine 4-8mg od	Same drug group as tolterodine	£25.78
Solifenacin 5-10mg od	May have better efficacy than tolterodine / oxybutynin	£25.78 to £33.52
Tolterodine XL 4mg od	May have fewer side effects than oxybutynin IR	£25.78
Trospium 20mg bd	May have fewer CNS side-effect esp. in elderly	£24.27

Box 5: Nocturnal polyuria

- Consider diagnosis where nocturia is a dominant symptom
- Frequency volume chart to determine fluid input & urine output
 - Should be < 33%
- 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 (eg diuretics taken in evening)

Possible management

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

Abbreviations

IPSS	International Prostate Symptom Score
LUTS	Lower Urinary Tract Symptoms
PSA	Prostate Specific Antigen
UTI	Urinary Tract Infection
OAB	Over Active Bladder

Age-specific PSA levels

40-49	< 2.5
50-59	< 3.0
60-69	< 4.0
70 +	< 5.0

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

Bothersome LUTS
 or bladder stone
 or recurrent UTI

Consider definitive surgery

ISC or long-term catheter
 if surgery declined or not appropriate

No bothersome LUTS

Surveillance if needed

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)

No

Video urodynamics recommended

Yes

Surgery (eg TURP)

Bladder Outflow Obstruction Diagnosed