Benign Prostatic Hyperplasia

Disclaimer

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Background

About benign prostatic hyperplasia (BPH)

➢ BPH is a common disorder that increases with age in men aged > 50 years.
➢ An estimated > 50% of men aged > 50 years will have lower urinary tract symptoms.\(^1\)
➢ The main symptoms are urinary frequency, hesitancy, weak stream, urgency, and nocturia.
➢ Only a small percentage develop acute urinary retention, recurrent urinary tract infections, hydronephrosis, an atonic bladder, or renal failure.

Red flags

• Acute, painful urinary retention

Assessment

1. Take a history. Ask about:
   • presence of symptoms and the impact on quality of life.
   • medications contributing to symptom burden.

Medications

➢ Tricyclic antidepressants
➢ Anticholinergics

2. Assess symptoms and severity – use the International Prostate Symptom Score (I-PSS).

Symptoms

➢ Voiding:
   o Poor flow
   o Hesitancy
   o Intermittency
➢ Storage (secondary):
   o Frequency
   o Nocturia
   o Urgency
➢ Impact on quality of life:
   o Little impact
   o Moderate impact
   o Significant impact

3. Perform an examination.

Examination

➢ Digital rectal examination (DRE) – assess prostate size, consistency, symmetry, and nodularity.
➢ Abdomen – check for a palpable bladder.
➢ External genitalia – foreskin, urethral orifice, testes.
4. Arrange *investigations.*

**Investigations**

- Urinalysis and culture.
- Prostate-specific antigen (PSA) – *is a mandatory investigation in symptomatic patients.* If dutasteride or finasteride treatment for > 3 months, *double the PSA level when interpreting results.*
- Serum creatinine.
- Ultrasound of prostate, kidney, and bladder to assess for prostate size, hydronephrosis, and outflow obstruction if:
  - elevated creatinine level or haematuria.
  - referral for urology assessment likely.

**Management**

1. If acute, painful urinary retention, arrange *immediate urology referral or admission.*
2. Arrange *urgent urology referral* if:
   - chronic urinary retention is present and hydronephrosis or deteriorating renal function is detected.
   - *complications*

**Complications**

- Elevated PSA
- Haematuria
- Recurrent UTIs
- Incontinence
- Bladder stones
- Post void residuals > 150 mL

- symptoms not responding to treatment.
- severe symptoms.
- any episodes of retention.

3. Reassure patient – *All prostate glands enlarge with age,* making BPH common as men get older. Over 50% of men aged > 50 years have some degree of lower urinary tract symptoms.\(^1\)
   - Inform that many do not require surgery or medical treatment and could be managed with watchful waiting.
   - Educate about supportive dietary strategies e.g., reduce caffeine, reduce alcohol, reduce fluids in the evenings.

4. Determine severity of impact on quality of life:
   - Moderate impact – treat with medication.
   - Significant impact – prostate surgery usually required.

5. Consider medication based on severity of symptoms and impact on quality of life.
   - *Alpha-1 blockers* e.g., prazosin or tamsulosin.
Alpha-1 blockers

Alpha-1 blockers work by relaxing smooth muscle. If one agent is ineffective or causes troublesome side-effects, it is useful to switch to an alternative agent.

Common side-effects include dizziness, fatigue, and postural hypotension

Four agents are available:

- **Prazosin**
  - Requires dose titration over the first 2 weeks, starting at 0.5 mg twice a day, aiming for 2 mg twice a day
  - Postural hypotension more likely if on antihypertensive therapy and may need dose adjustments
  - Listed on the PBS

- **Tamsulosin**
  - 400 micrograms once a day
  - No dose titration required
  - Postural hypotension uncommon but can be a cause of falls
  - Repatriation Schedule of Pharmaceutical Benefits (RPBS) or authority script

- **Silodosin**
  - 8 mg once a day
  - No dose titration required
  - Postural hypotension uncommon but can be cause of falls
  - Private script

- **Alfuzosin**
  - 10 mg once a day
  - No dose titration required
  - Postural hypotension uncommon but can be cause of falls
  - Repatriation Schedule of Pharmaceutical Benefits (RPBS) or private script

- If good response, continue with the medication. Alpha-blockers generally improve flow rates by 30%.
- If poor response or unable to tolerate alpha blockers:
  - consider a trial of **dutasteride and tamsulosin** as a combination agent.

**Dutasteride and tamsulosin**

- 500 micrograms/400 micrograms once daily dosing
- No titration required
- Authority script
- Has been shown to reduce PSA levels

- avoid prescribing dutasteride as a stand-alone agent – efficacy is limited.
- consider **mirabegron** for its benefit in treating irritative symptoms. Only initiate this if obstruction has been ruled out.
Mirabegron

- Beta adrenergic agonist
- Relaxes detrusor muscle and increases bladder capacity
- Not available on the PBS

- Herbal therapies have *not* been shown to be effective e.g., saw palmetto.²

Referral

- If acute, painful urinary retention, arrange [immediate urology referral or admission](#).
- Arrange [urgent urology referral](#) if:
  - chronic urinary retention is present and hydronephrosis or deteriorating renal function is detected.
  - complications.
  - symptoms not responding to treatment.
  - severe symptoms.
  - any previous acute urinary retention.

- Arrange [routine urology referral](#) if:
  - failure to respond to or unable to tolerate medical management.
  - new onset of lower urinary tract symptoms (LUTS).
  - chronic, uninvestigated LUTS.
  - symptoms significantly impact on quality of life.

- Arrange [routine urology referral](#) if:
  - failure to respond to or unable to tolerate medical management.
  - new onset of lower urinary tract symptoms (LUTS).
  - chronic, uninvestigated LUTS.
  - symptoms significantly impact on quality of life.

Information

For health professionals

Australian Journal of General Practice (AJGP) – [Review and Update of Benign Prostatic Hyperplasia in General Practice](#)

For patients

Healthy Male Andrology Australia – [Prostate Enlargement or BPH](#)
References


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