

Prostate and Urinary Symptoms: When Imaging Matters



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Imaging and Referral Selector

Lower urinary tract symptoms (LUTS), which are common in men and usually benign. An estimated 48,000 men in New Zealand are living after a prostate cancer diagnosis^[1]; new urinary symptoms may reflect treatment effects or recurrence. GPs play a central role in monitoring symptoms and PSA, and recognising when specialist review or imaging may change management. New Zealand guidance supports individualised discussion of PSA testing, including benefits and harms, personal and family risk, and patient preferences^[2,3]. PCFNZ recommends considering an annual prostate check from age 50 that includes both a PSA blood test and a digital rectal examination (DRE). This should start from 45 years if there is known family history of prostate cancer, or from age 40 if there is a genetic predisposition to prostate cancer (BRCA2 gene variation, family history of breast, ovarian, prostate cancer or Lynch Syndrome)^[3].

Clinical situation	Key features / differentiators	Recommended next step
Elevated PSA or abnormal DRE, not yet diagnosed	PSA at or above the age- and risk-based action level, confirmed on repeat within 1–3 months; or suspicious DRE	Specialist referral; MRI before biopsy (specialist-requested)
Active surveillance	Low- or very low-risk disease; PSA and symptoms stable	Support the specialist plan; surveillance MRI as scheduled by the specialist
Rising PSA after treatment	PSA rising from post-treatment nadir; possible biochemical recurrence	Specialist reassessment; PSMA PET/CT to assess beyond the prostate bed
Suspected local recurrence	Salvage biopsy or salvage treatment being considered	Prostate or pelvic MRI, specialist-directed
Visible haematuria, with or without after pelvic radiation	Exclude UTI. Do not assume radiation cystitis; second bladder cancer risk is increased	Urology referral; CT urography and cystoscopy as directed
New or worsening LUTS, voiding difficulty or retention	Frequency, urgency, nocturia, weak stream, straining or recurrent UTI; BPH, urethral stricture or calculi	Renal tract US with post-void residual; urology referral if complicated (see p2)
Rectal bleeding or bowel change after radiation	Exclude colorectal cancer; pneumaturia or faecaluria suggests fistula	Colonoscopy (flag prior radiation); pelvic MRI or CT if fistula suspected
Starting longer-term ADT	Accelerated bone loss and increased fracture risk	Baseline DEXA when indicated; assess NZ eligibility and local funding criteria.
New bone pain, raised ALP or hypercalcaemia	Persistent or night-time pain; possible bone metastases	Specialist review; PSMA PET/CT or bone scan
Back pain with new neurological symptoms	Limb weakness, sensory change, bladder or bowel dysfunction	Same-day emergency assessment; urgent whole-spine MRI

What to include on the referral

Complete clinical detail helps the radiologist choose the right modality and protocol first time.

Treatment history	Complete clinical detail helps the radiologist choose the right modality and protocol. It also guides us in providing a clinically useful report Treatment history Surgery, radiation, focal therapy or ADT, with dates is useful and preferred over "Post-RP."
PSA trend	PSA trend List values and dates (e.g. 0.09 0.16 0.24 ng/mL over 9 months) is valuable and preferred over "PSA rising".
Current systemic therapy	ADT or androgen receptor pathway inhibitor: agent and start date.
Clinical question	"Local recurrence?" vs "Whole-body staging?" vs "Fracture or metastasis?" – this determines the modality.
MRI safety and contrast	Penile prosthesis, artificial urinary sphincter, pacemaker or other implants; eGFR and contrast allergies.
Requesting clinician	NZ referral and funding criteria vary by region and service; confirm locally.

[1] Prostate Cancer Foundation NZ. Useful links: NZ prostate cancer key facts. prostate.org.nz/useful-links [2] Te Aho o Te Kahu. Prostate Cancer Optimal Cancer Care Pathway (2025). Step 2: Early detection. teaho.govt.nz [3] Prostate Cancer Foundation NZ. Getting tested. prostate.org.nz/getting-tested [4] bpacnz. Genitourinary system (male) (2020). bpac.org.nz/2020/docs/prostate.pdf

Lower Urinary Tract Symptoms (LUTS)

GP assessment and referral guide

Urinary symptoms are usually benign but can overlap with symptoms of prostate cancer.

1 Assess	Review urinary symptoms, family history and relevant risk factors. Consider PSA testing, DRE and urinalysis according to clinical assessment and shared decision-making.
2 Investigate	An isolated raised PSA without red flags or abnormal DRE should usually be repeated after 6-12 weeks. Consider benign causes of PSA elevation. Assessment should include timely review and follow-up of abnormal PSA results, appropriate investigation to minimise the risk of delayed prostate cancer diagnosis. ^[5]
3 Refer	Refer when DRE is abnormal, PSA remains elevated or concerning features are present. Referral urgency depends on findings, symptoms and local pathways.
4 Imaging	Prostate MRI may be used following specialist assessment to guide investigation. Biopsy is needed to confirm a prostate cancer diagnosis.

URGENT ASSESSMENT / RED FLAGS

Visible haematuria, renal failure, significant bone pain or neurological signs of cord compression.

Adapted from bpacnz (2020), Testing for prostate cancer: helping patients to decide, sections on symptomatic patients, PSA testing and investigations after referral. bpac.org.nz/2020/prostate.aspx#6 | Clinical review recommended: source published 2020.

Where to refer

For more information on our clinics and services visit **i-med.co.nz**

MRI

PSMA PET

Location	Address	Phone	Fax		
Hamilton	Level 1, Meade Clinical Centre, Gate 1, 183 Pembroke Street, Hamilton 3204	0800 687 674	07 957 6051	✓	
	Level B3, Lomas Building, Gate 1, 183 Pembroke Street, Hamilton 3204	0800 687 674	07 957 6051	✓	
Hamilton Central	11 Thackeray Street, Gate 2, Hamilton Central 3204	0800 687 674	07 957 6051	✓	
	11 Thackeray Street, Hamilton Central 3204	0800 426 723	07 839 5780		✓
Hamilton Lake	Braemar Medical Services Building, 24 Ohaupo Road, Hamilton Lake 3204	0800 687 674	07 957 6051	✓	
New Plymouth	59 Vivian Street, New Plymouth 4310	06 759 4317 (ext 710)	06 758 4797	✓	
Tauranga	T24/219-261 Fraser Street, Fraser Cove Shopping Centre, Tauranga, Bay of Plenty 3112	07 544 5993	N/A	✓	✓

How to refer and access reports and images

Method	Details
Editable PDF referral	Download at i-med.co.nz/order-referral-pads
Referral pads	Order referral pads online at i-med.co.nz/order-referral-pads
Pre-referral consultation	Call us before referring for modality selection, MRI safety (implants) or contrast queries
Reports & images (IntelConnect)	i-med.co.nz/resources/access-patient-images – access reports and images

A decision support tool for patients:

kupe.net.nz/about-prostate-cancer

During November I-MED is supporting the Prostate Cancer Foundation of New Zealand.

Patients can find more information here:
prostate.org.nz/our-support-services



[5] Betty, B., & Moodie, P. (2022, April 14). PSA testing and a missed diagnosis. The Royal New Zealand College of General Practitioners. <https://www.nzcgp.org.nz/news/clinical/psa-testing-and-a-missed-diagnosis/>