Navigating the shift: New RACGP Red Book guidelines for prostate-specific antigen testing in general practice

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SINCE PROSTATE-SPECIFIC ANTIGEN (PSA) testing began in the mid-1990s, its role as a diagnostic tool for prostate cancer has led to complexity and confusion. Although global health systems adopt different approaches to PSA screening, the Australian guidelines have shifted over time. In 2015, to assist with the confusion among clinicians and patients, there was a collaborative effort to come to a consensus and this involved the National Health and Medical Research Council, The Royal Australian College of General Practitioners (RACGP) and the Prostate Cancer Foundation of Australia (PCFA).[1] In 2016, the ninth edition of the RACGP *Guidelines for preventive activities in general practice* (the Red Book) stated that preventative PSA screening was not advised for men of any age.[2]

By 2024, the RACGP guidelines had shifted to a risk-based approach to PSA screening (Table 1). A concerted effort, like in 2015, is needed from both general practitioners and urologists to understand and adopt these changes, guiding patients on the pros and cons of PSA testing.

The Red Book's advice in 2016 against routine preventative PSA testing was based on the findings of the USA-based Prostate, Lung, Colorectal, and Ovarian (PLCO) Cancer Screening Trial[3] and the recommendations of the USA Preventive Services Taskforce. The PLCO Screening Trial reported no difference in cancer mortality between the screening and control groups. However, the randomisation protocol of the PLCO Screening Trial had significant limitations. Large proportions of patients in the control group underwent PSA testing. In contrast, the European Randomised Study of Screening for Prostate Cancer, which had less contamination, demonstrated a significant reduction in prostate cancer mortality in the screening group.[4]

In the 2024 tenth edition, the RACGP's Red Book introduces a revised, risk-based approach to PSA testing.[5] The current guideline recommends that men begin PSA testing at age 50 years. For those with a first-degree relative diagnosed with prostate cancer, earlier screening is advised – starting at age 40 or 45 years, depending on the number of affected relatives. Testing should be carried out after the patient is adequately informed about the benefits and risks.

The frequency of recommended PSA testing has also changed since 2023. The Medicare Benefits Schedule (MBS) criteria for PSA testing in any particular patient has changed from once a year to once every 23 months if total PSA remains below 3.0 ng/mL.[6] This is consistent with evidence from both the European Randomized Study of Screening for Prostate Cancer (ERSPC)[4] and PLCO trials,[3] which demonstrated that the mortality benefit of PSA testing becomes evident only after years of follow-up.

The shift in PSA guidelines reflects significant advancements in prostate cancer diagnosis and management over

Table 1. Comparison of the ninth and tenth editions of The Royal Australian College of General Practitioners (RACGP) *Guidelines for preventive activities in general practice* (Red Book) on prostate-specific antigen (PSA) testing[2,5]

Edition	Men at average risk[A]	Men at high risk[B]
9th (2016)	Not recommended	Not recommended
10th (2024)	Offer to men aged 50–69 years who are well informed and interested	Offer to men aged 40 or 45–69 years who are well informed and interested

[A]Average risk means no family history of prostate cancer.

[B]High risk means men with a family history of prostate cancer.

the past 15 years, aimed at reducing the past harms of overdiagnosis and overtreatment associated with PSA testing. Key advancements include the routine use of multiparametric magnetic resonance imaging (mpMRI) to triage men, leading to biopsies only for those at risk of clinically significant prostate cancer, thus reducing overdiagnosis of clinically insignificant cases. The MBS criteria for prostate MRI aligns with current recommendations, offering rebates for men aged under 70 years who have two PSA levels >3.0 ng/mL within three months and a free-to-total PSA ratio under 25%.[7] The adoption of transperineal biopsies (TPB) has significantly lowered the risk of biopsy-related sepsis, a serious complication of the previously common transrectal ultrasound-guided biopsy.[8] It is also largely performed under general anaesthetic, which is of significance to men considering testing. Active surveillance has become a viable option for men with low-risk prostate cancer, with monitoring through PSA and mpMRI to avoid unnecessary treatment and its side effects. Safer treatment options, such as robot-assisted radical prostatectomy (RARP) and improved radiotherapy, are now available, whereas growing sophistication in modelling continues to provide evidence on the benefits of PSA testing.[9] Although focal therapy is not standard of care, it is an interesting and promising treatment paradigm for prostate cancer. The tenth edition of the RACGP Red Book heralds a welcomed change – one that is evidenced-based and proactive in initiating discussions with patients about PSA testing.[10] Being at the forefront of prostate cancer diagnosis and treatment, general practitioners and urologists have a responsibility to promote testing for the early detection of prostate cancer, with the aim to detect and treat clinically significant prostate cancer while it is a localised disease, and with an aim to reduce the incidence of metastatic disease and mortality from prostate cancer.[11]

A summary of key practice points based on the tenth edition Red Book and MBS criteria is provided (Box 1). Additionally, the PCFA is expected to release further updates to the prostate cancer screening guidelines in late 2025.

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Box 1. Practice points from the 10th edition of The Royal Australian College of General Practitioner's Red Book on prostate cancer screening[5]

- Offer PSA testing to men from the age of 50 years after discussing the risks and benefits
  - Offer it from the age of 45 years to men with first-degree relatives diagnosed with prostate cancer
  - Offer it from the age of 40 years if there are three first-degree relatives diagnosed with prostate cancer
- If the initial total PSA is <3.0 ng/mL, repeat in 2 years[6]
- If the initial total PSA is >3.0 ng/mL, repeat in 1–3 months
  - If it remains >3.0 ng/mL, consider urology referral for review and a prostate MRI,[A] which will further help assess risk[7]
- Do not offer PSA testing if life expectancy is <7 years as there is limited mortality benefit
- Prostate cancer, if present, does not always require treatment. Active surveillance with risk minimisation is recommended for low-risk prostate cancer (Grade group 1)

[A]Two elevated PSAs levels >3.0 ng/mL with a free/total PSA ratio <25% within a 3-month timeframe in men aged <70 years attracts the Medicare rebate but the MRI has to be ordered by a urology specialist.

MRI, magnetic resonance imaging; PSA, prostate-specific antigen.

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