



## **PROSTATE CANCER SCREENING IN AUSTRALIA: POSITION STATEMENT**

The need to inform Australian men about prostate cancer is increasingly important. Each year almost 3300 Australian men die from prostate cancer and more than 21,000 new cases are diagnosed.<sup>1</sup> With prostate cancer risk higher among older men, the number of cases will continue to grow as Australia's population ages.

Early detection and management of prostate cancer is a complex issue. Evidence on the links between prostate cancer risk and modifiable lifestyle factors is limited. In addition, unlike cancers of the bowel, breast and cervix, there is insufficient evidence to support the benefits of population-based screening for prostate cancer using the prostate specific antigen (PSA) test.

Population-based screening is where a test is offered to all individuals in a target group, often defined by age, as part of an organised program. The Population Based Screening Framework provides guidance for decision makers when considering potential population based screening programs in Australia.<sup>2</sup> The framework identifies the need for a strong evidence base on the safety, reproducibility and accuracy of screening tests and the efficacy of treatment. It also includes the requirement that screening programs offer more benefit than harm to the target population.

The Standing Committee on Screening and Cancer Council Australia endorse the following key messages to help inform Australian men about prostate cancer and to reinforce the need for men to make an informed, personal choice about prostate cancer detection.

This statement should be read in conjunction with the NHMRC's *PSA Testing for Prostate Cancer in Asymptomatic Men: Information for Health Practitioners* (NHMRC Information Document). The NHMRC Information Document is underpinned by the NHMRC's *PSA testing in asymptomatic men: Evidence Evaluation Report 2013*<sup>3</sup> (NHMRC Evidence Report). These reports can be accessed at the [NHMRC](#).

### **General messages**

- Prostate cancer is a major health concern in Australia, causing the second highest number of cancer deaths in men (after lung cancer) and the most cancer cases (apart from non-melanoma skin cancer).<sup>4</sup>
- A prostate cancer diagnosis at any age has a major impact on a man's quality of life.
- The risk of developing or dying from prostate cancer increases strongly with age - 90% of new prostate cancer cases occur in men aged 55 years and over, with 99% of prostate cancer deaths occurring in this age group.<sup>5</sup>
- Men with a first-degree relative with prostate cancer have a greater risk of the disease.

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- Current evidence indicates that the PSA test is not suitable for population screening, as the harms (see below) outweigh the benefits.
- Men who are concerned about prostate cancer should discuss it with their doctor.

### **Research on the effectiveness of PSA testing for men without symptoms**

- The NHMRC Evidence Report found that compared with no PSA testing:
  - the present evidence is inconsistent as to whether PSA testing affects the risk of dying from prostate cancer, although the possibilities of no effect or a small protective effect cannot be excluded;
  - PSA testing has no discernible effect on the overall risk of dying; and
  - PSA testing reduces the risk of having metastases present at diagnosis of prostate cancer.

### **Potential harms and benefits of PSA testing**

- Harms as well as benefits need to be considered in recommendations about population screening.
- The NHMRC Information Document states that:
  - the potential benefits of PSA testing are reassurance, early detection and an opportunity to commence early treatment; and
  - the potential harms of PSA testing include false positives, false negatives, overdiagnosis and unnecessary treatment of slowly progressing cancer (see 'Treatment' below). Data on these harms are available in the NHMRC publications cited above.

### **Difficulty with diagnosis**

- Many prostate cancers grow slowly without requiring treatment or intervention. This means that many men with prostate cancer can lead a normal life without being affected in any significant way by their cancer.
- Unfortunately, other men will experience life-threatening prostate cancer where the cancer grows and spreads rapidly.
- At the present time, there is no test available that adequately differentiates between these cancers.

### **Treatment**

- Following a diagnosis of prostate cancer, to make an informed choice about treatment, men should consider and discuss with their doctor the options available. Options include surgery, radiotherapy, hormonal treatments or watchful waiting. The various side effects of treatment such as impotence, incontinence and bowel symptoms should also be discussed.
- Current best evidence indicates that active surveillance is appropriate in some cases of early, low-grade prostate cancer.
- Potential treatment side effects should be considered in the decision of whether or not to undergo PSA testing, as some early prostate cancers detected through PSA testing will not result in future health problems if left untreated (overdiagnosis). If these cancers are treated (over treatment), any reduction in quality of life due to the side effects from the treatment may be considered an unnecessary harm (because there may have been no clinical benefit).<sup>6</sup>

## Testing for men with symptoms

- It is very common for men over 50 years of age to experience symptoms related to changes in urinary flow, urgency or control. In most cases these symptoms are caused by non-cancerous, enlargement of the prostate. They should be checked by a doctor.
- Commonly used tests for investigating men presenting with symptoms include the PSA blood test, digital rectal examination (DRE) and ultrasound.
- PSA levels can rise due to cancer or to benign (non-cancerous) conditions, while levels may also be low in the presence of prostate cancer. A prostate biopsy is the only method by which prostate cancer can be definitively diagnosed.
- The PSA test is used in the ongoing management of men who have been treated for prostate cancer.
- DRE involves a doctor manually checking for abnormalities through the rectum. Its effectiveness is limited, as sections of the prostate are out of reach and small tumours may be undetectable.

## Conclusion

For the reasons above, men considering being tested for prostate cancer should do so with information on both the benefits and harms of testing and treatment. We encourage men to speak to their doctor so they can make an informed choice about prostate cancer testing.

An assessment of current evidence against the Population Based Screening Framework criteria indicates that the PSA test is not suitable for population screening, as the harms outweigh the benefits.

This statement was updated by the Standing Committee on Screening in March 2014. It replaces the Prostate Cancer Screening in Australia: Position Statement 2010. It was endorsed by the Community Care and Population Health Principal Committee of the Australian Health Ministers' Advisory Council in August 2014.

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<sup>1</sup> Australian Institute of Health and Welfare 2013. Prostate cancer in Australia. Cancer series no. 79.Cat. no. CAN 76. Canberra: AIHW.

<sup>2</sup> Australian Population Health Development Principal Committee – Screening Subcommittee. Population Based Screening Framework. AHMAC 2008 - [cancerscreening](#)

<sup>3</sup> National Health and Medical Research Council (2013). Prostate-Specific Antigen (PSA) testing in asymptomatic men: Evidence Evaluation Report. Canberra: National Health and Medical Research Council.

<sup>4</sup> Australian Institute of Health and Welfare 2013. Prostate cancer in Australia. Cancer series no. 79.Cat. no. CAN 76. Canberra: AIHW.

<sup>5</sup> Australian Institute of Health and Welfare 2013. Prostate cancer in Australia. Cancer series no. 79.Cat. no. CAN 76. Canberra: AIHW.

<sup>6</sup> National Health and Medical Research Council (2013). Prostate-Specific Antigen (PSA) testing in asymptomatic men: Evidence Evaluation Report. Canberra: National Health and Medical Research Council.