

Prostate cancer screening patient decision aid

What this decision aid is for

This decision aid is intended to assist health professionals in consultations with men who do **not** have symptoms of prostate cancer, but who are considering whether or not to have a prostate specific antigen (PSA) test. It should be used in conjunction with the Department of Health leaflet available at <http://www.cancerscreening.nhs.uk/prostate/prostate-patient-info-sheet.pdf>. The leaflet suggests men may wish to work through an interactive online resource at www.prosdex.com. This decision aid may be used in conjunction with the PROSDEx resource. It is derived from the same data and has the same numbers.¹

Note, NICE guidance advises that men who present **with** symptoms suggestive of prostate cancer should have a digital rectal examination and a PSA test after counselling.²

The balance of pros and cons

The PSA test may lead to the detection of cancer before symptoms develop, and/or at an early stage when the cancer could be cured or treatment could extend life. On the other hand, a single PSA test will not distinguish between aggressive tumours which are at an early stage but will develop quickly and those which are not, but further tests may provide valuable information.³

Like most screening tests, PSA testing incorrectly identifies some men as possibly having prostate cancer when they do not (false positives), as well as correctly identifying men who do have prostate cancer (true positives). It also incorrectly identifies some men as not having prostate cancer when in fact they do go on to develop it (false negatives), as well as correctly identifying men who do not have prostate cancer (true negatives). The image on the next page illustrates this graphically. It is not possible to say what will happen to any individual man.

A negative test result is much more likely to be correct than incorrect: there are many more true negatives (about 893 per 1000 men tested) than false negatives (about 7 per 1000). However, a positive test is actually twice as likely to be incorrect as correct: there are about twice as many false positives (about 67 per 1000 men tested) as true positives (about 34 per 1000).¹

Men who test positive on PSA testing can undergo biopsy: this will correctly rule out prostate cancer in most of these (about 67 out of 100 tested). However, about 7 men in 100 who tested positive on PSA testing and undergo biopsy will be told that they do not have prostate cancer but in fact go on to develop it.¹

References

1. Watson E, et al. The PSA test and prostate cancer: information for primary care. NHS Cancer Screening Programmes, 2002
2. National Institute for Health and Clinical Excellence. Referral guidelines for suspected cancer. Clinical Guideline 27, 2005
3. Burford D, et al. Prostate Cancer Risk Management Programme: information for primary care; PSA testing in asymptomatic men. NHS Cancer Screening Programmes, 2009

Imagine 1000 men aged 50 to 70 years with no symptoms of prostate problems who each have a PSA screening test.
What happens to them?

