PSA Debate
PSA test

- PSA testing is not usually recommended for asymptomatic men with < 10 years life expectancy
- Before having a PSA test men should not have:
  - had a DRE in the previous week.
  - an active UTI (PSA may remain raised for many months);
  - ejaculated in the previous 48 hours;
  - exercised vigorously in the previous 48 hours;
  - had a prostate biopsy in the previous 6 weeks
PSA test

- If borderline raised, consider repeating
- Although 2 week referral, very rarely that urgent.
PSA test

- Around 2/3 of men with a raised PSA do not have prostate cancer
- One study found 1 in 6 men with a ‘normal’ PSA may have prostate cancer
PSA test

• Study with pts in real community practice:
• PSA cut-off of 4:
  – sensitivity of 86%, specificity of 33%
• For range of PSA 4-10 (approx half in this study), LR+ is 0.96, i.e. no real difference to pre-test probability
PSA test

• Using PSA >4, testing was most sensitive (90%), but least specific (27%) in older men

• Age-specific reference ranges:
  – improved specificity in older men (49%)
  – but decreased sensitivity (70%), with LR+ of 1.38
Some figures

• 1.3 million diagnosed in US since PSA, 1 million had treatment.

• Greatest risk factor for CaP diagnosis?
  – PSA blood test

• Best way to decrease incidence:
  – Reduce PSA testing
  – Raise PSA thresholds for further action
  – Use other risk calculators such as prostate volume, free:total ratio, etc.
Screening?

• In 2010, the UK National Screening Committee recommended against screening
  – due to review its position in 2013-14

• Prostate Cancer UK current position:
  “Disadvantages of screening for prostate cancer using the PSA test outweigh its benefits”
Some figures

• Aim of screening is to reduce disease-specific & overall mortality.

• 6 big trials looked at PSA screening & mortality, none found reduction in overall mortality.
Some figures

• Only 1 main study found reduction in CaP mortality. Overall, after median 11 years (can't say after that - yet):
  – 16% raised PSA, 24% of these with cancer on biopsy
  – Relative reduction of CaP mortality of 29% (adjusted)
  – Need to screen ~1000 men to prevent one CaP death
  – Need to detect 37 cases of prostate cancer
  – Still only 30% of all patients in the study had died overall at this stage.
Some figures

• Gothenburg study:
  – Smaller part of same study
  – Longer follow-up, median 14 years
  – ~50% reduction in CaP deaths

• To prevent one cancer death:
  – Approx 300 (95% CI 177—799) needed to be invited for screening
  – 12 to be diagnosed
Some figures

• ProtecT study:
  – 1/3 get moderate or major bothersome symptoms from biopsy.
  – Sepsis in 2-4%, 1% admitted.

• PROMIS study looking at MRI vs template prostate mapping:
  – could be useful at detecting & not overtreating small low-grade tumours.
Some figures

• Nearly 90% in US with PSA-detected Ca now get immediate treatment, approx 80% with low-risk.
• In UK, approx 60% with low risk Ca get immediate treatment.
Some figures

- PIVOT (2012) looked at observation (NOT active surveillance) vs radical prostatectomy (RP) over 15 years:
  - No difference in overall or CaP mortality.
  - Possibly slightly favoured RP only if high risk & PSA over 10.
  - Already outdated, with RP probably now being done on even smaller cancers, found with more PSA testing and more needles.
Some figures

• Active surveillance (AS) suggests risk of mets <1% up to 8 years. ProtecT is randomising AS against RP or DXT.

• Future:
  – better biomarkers
  – raise thresholds for PSA
  – improve communication re AS
  – improve minimally invasive therapy e.g. cryosurgery, HIFU.
Prostate cancer screening and the management of clinically localized disease

Timothy J Wilt professor of medicine, section of general internal medicine¹, Hashim U Ahmed Medical Research Council clinician scientist and clinical lecturer in urology²³

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What should we tell patients who request screening?

Physicians can improve the health of their male patients by recommending against PSA screening for prostate cancer. However, PSA screening is common, and some men will continue to request and some physicians will continue to offer such screening. A decision to start or continue PSA screening should reflect an explicit understanding of the possible benefits and harms and respect for patient preferences. The box gives examples of screening messages that can be delivered in primary care to patients who ask about PSA screening. Figure 3 provides information about the potential benefits and harms of testing.
and treatment. Community, employer based, and clinician ordered PSA testing in the absence of well informed decision making should be discontinued. Physicians should use higher thresholds to define abnormalities that trigger a diagnostic prostate biopsy in men who have undergone a PSA test, thereby reducing overdiagnosis and overtreatment.

Compared with early intervention with surgery or radiotherapy, observation can help most men with early stage prostate cancer detected by PSA testing live a similar length of life and avoid death from prostate cancer, as well as prevent treatment related harms. Physicians should encourage patient participation in RCTs examining new prevention, screening, and treatment approaches.
Their screening messages

Recommend against PSA test for prostate cancer screening because:

• The test is unlikely to prevent you from dying of prostate cancer over 10-15 years or help you live longer

• Elevated PSA values are common and lead to additional tests that have harms

• PSA testing finds many cancers that will not cause health problems
Their screening messages

- Once we find cancer it is hard not to treat it
- Treatments have harms that occur early, can be serious, and may persist, but have very little, if any, benefit
- By choosing not to have the PSA test you can live a similar length of life, have little to no difference in your risk of dying from prostate cancer, and avoid the harms associated with tests, procedures, and treatments
14 February 2013

Sarah Cant, Director of
Policy and Campaigns
Prostate Cancer UK,
Cambridge House, 100
Cambridge Grove,
London W6 0LE

Re: Prostate cancer screening and the management of clinically localized disease

Prostate cancer is the most common cancer in men and claims over 10,000 lives in the UK every year (1). We agree the PSA test is far from perfect, which is why we do not support its use in a national screening programme, but it is currently the only available first step towards diagnosing the disease. For this reason we are concerned that the authors suggest that physicians should always advise men against having the test. Not all men with aggressive forms of the disease will have symptoms, therefore a number of these more aggressive cancers would fall under the radar if men with concerns were not offered the opportunity to have the test.
We recognise, however, that over-treatment should be avoided wherever possible. This is why our research strategy strongly focuses on establishing a better means of differentiating harmless and aggressive forms of prostate cancer and identifying men at high risk of developing aggressive disease. In the meantime, in the absence of more definitive tests, we urge physicians to heed the recommendations of the Prostate Cancer Risk Management Programme (2) and provide men with balanced information about the pros and cons of PSA testing. Men are entitled to make an informed choice according to their own situation - especially if they are at higher risk of getting the disease (3).
Screening at younger age?

• Some suggest measuring PSA at **age 40:**
  – if under 0.5, v low risk at 25 yrs follow-up.
  – If 2-3, increase odds 19-fold.
Screening at younger age?

Strategy for detection of prostate cancer based on relation between prostate specific antigen at age 40-55 and long term risk of metastasis: case-control study
Screening at younger age?

- 21,277 Swedish men aged 27-52 who provided blood at baseline in 1974-84, unthawed in study
- Looked at PSA vs long-term CaP outcomes
- 3 age groups:
  - Near 40
  - 45-49
  - 51-55
Screening at younger age?

- At 40, even for men with highest decile PSA, risk of CaP mets very low at 15 years
  - “difficult to justify initiating PSA testing at age 40”
- 45-49, highest decile PSA: 15-yr risk of mets: 1.7%
- 51-55, highest decile PSA: 15-yr risk of mets: 5.2%
- i.e. early 50s may be too late to start screening

- Highest decile at 45-55: approx ½ of CaP deaths
Screening at younger age?

• Screening intervals?

• Initial screen in mid-late 40s
  – PSA <1.0 (approx ¾ of men at this age):
    • screen again in early-mid 50s, and at ~60
  – PSA >1.0: more frequent, e.g. 2-4 yearly

• Test aged ~60:
  – PSA <1.0: no further screening
  – PSA >1.0: continue until ~70
Current Resources

Health England
From 1 April 2013 we are part of Public Health England
Find out more about Public Health England

Prostate Cancer Risk Management Programme

Welcome to the Prostate Cancer Risk Management Programme website for England

There is no organised screening programme for prostate cancer but an informed choice programme, Prostate Cancer Risk Management, has been introduced. If you are worried about a specific problem, or otherwise worried about the risks of cancer, then you should talk to your GP.

Aim of Prostate Cancer Risk Management

The aim of Prostate Cancer Risk Management is to ensure that men who are concerned about the risk of prostate cancer receive clear and balanced information about the advantages and disadvantages of the PSA test and treatment for prostate cancer. This will help men to decide whether they want to have the test.

Information packs have been sent to General Practitioners to assist them in the counselling of men who enquire about testing. The pack will help the primary care team to provide men with information on the benefits and limitations of the PSA test. It comprises a reference booklet and summary sheet for the primary care team and a book of tear off patient information sheets. Prostate CancerStats are also included.
Current Resources

PSA (prostate specific antigen) testing for prostate cancer
An information sheet for men considering a PSA test

What is the aim of this leaflet?
Prostate cancer is a serious condition. The PSA test, which can give an early indication of prostate cancer, is available to you if you want to be tested. However, experts disagree on how useful the PSA test is. This is why there is a lot of research and why there is no national screening programme for prostate cancer in the United Kingdom (UK). The aim of this information sheet is to give you balanced information about the PSA test and things you may want to think about. We hope it will help you decide whether or not you should have the test, but there is no simple right or wrong answer. You may want to talk about this information with your doctor or a trained practice nurse and speak to your partner.

What is the prostate?
The prostate is a sex gland which lies just below the bladder in men. It provides bathing fluid to help produce healthy sperm. The prostate surrounds the tube (called the

2 out of 3 men with a raised PSA level will not have prostate cancer. The higher the level of PSA, the more likely it is to be a sign of cancer. The PSA test can also miss cancer.

- A PSA test involves giving a blood sample.
- If the level of PSA in your blood is raised, this may mean you have prostate cancer.
- About 2 out of 3 men with a raised PSA level will not have prostate cancer.
- The PSA test can miss cancer.
- A one-off test is not reliable and extra tests may provide important information.

When you have a PSA test you should not have:

- an active urinary infection;
- ejaculated in the last 48 hours;
PROSTATE SPECIFIC ANTIGEN (PSA) TESTING - NHS DECISION MAKING
Totally Health Ltd.

NHS PSA TEST

No Ratings

Details Reviews Related

NHS

SHARED DECISION MAKING

PSA32
GETTING STARTED WITH SHARED DECISION MAKING

You have Downloaded the Prostate Specific Antigen (PSA) Testing Aid.

This decision aid is for men who are considering having a test to find out more about their risk of having prostate cancer. The decision aid is not for people who have symptoms of prostate cancer and need a test to diagnose cancer.

The prostate specific antigen (PSA) test can tell you if you have a raised chance of prostate cancer. The PSA test cannot tell you for certain whether you have prostate cancer. If you decide to have a PSA test you can discuss this with your GP, who can arrange for you to have a test.
HAVING THE PSA TEST: EFFECT ON HOW LONG YOU LIVE

On average, men who have a PSA test do not live longer or shorter lives than men who do not have a test.[54]

This information comes from studies looking at big groups of men who were offered PSA testing. We don't know whether having a PSA test will affect your individual length of life.

More Information
HAVING THE PSA TEST: EFFECT ON CHANCES OF DYING FROM PROSTATE CANCER

Men who have prostate cancer are less likely to die of prostate cancer if they had a PSA test. Their chances of dying of prostate cancer reduce by about 1 in 1000.[56]

We don't know if having a PSA test means you're more likely to live longer if you are diagnosed with prostate cancer. [57] This is because having a PSA test does not affect how likely you are to die early of other causes.

When all men in a big group are screened, studies show that 293 men need to have a PSA test to prevent one man dying from prostate cancer.[58]
3
MY VALUES
Thinking about what matters to you about your decision.

Before making a decision it is important that you consider the consequences of each of the available options. Choosing how you feel about each of the statements below will help you think about how important these potential consequences are to you.

I only want the test if it will lower my chances of dying from prostate cancer

<table>
<thead>
<tr>
<th>Disagree Strongly</th>
<th>Disagree Somewhat</th>
<th>Agree Somewhat</th>
<th>Agree Strongly</th>
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