Position Statement on Testing for Prostate Cancer

Key messages

- The PSA test should be available free to any man aged 50 and over who requests it.
- Ensure men are aware of the advantages and disadvantages of PSA testing, and their own individual risk of prostate cancer, to help them make an informed decision.
- Offer PSA testing to symptomatic men as per NICE guidelines, and consider discussing PSA testing with asymptomatic men over 50 (or 45 in higher risk cohorts).
- New diagnostic pathways for prostate cancer e.g. use of multi-parametric MRI, enable more precise diagnosis and can reduce the potential for overtreatment.

Background

Prostate cancer is the most common cancer in the UK with 52,300 new cases annually. It is also the second most common cause of cancer death in UK men with around 12,000 deaths per year.

Prostate cancer referrals have had the slowest recovery of any tumour group other than lung following the Covid pandemic. In April 2020 -March 2021, 13,900 (22%) fewer patients in England started treatment for urological cancer compared with pre-pandemic levels - 80% of these were prostate cancers. Locally, urologists report seeing more men presenting with late stage disease.

However, we know that 75% of men diagnosed with prostate cancer survive 10 years or more and that slow-growing cancers are common.

Trans women are also at risk of prostate cancer but awareness is low in this group. The prostate is not removed as part of genital reconstructive surgery.

What do we know about the risk of developing prostate cancer?

The average lifetime risk for men is 1 in 6. Prostate cancer is much more common in men over the age of 50 years. However, we know that certain groups have an increased risk of developing prostate cancer and at an earlier age.

The risk of developing prostate cancer is increased in black British, African and Caribbean men to 1 in 4 and becomes more common from age 45 years.

Family history is also important - men who have a first degree relative (father, brother or son) with prostate cancer are 2.5 times more likely to develop prostate cancer. This risk rises to 4 times more likely if two first-degree relatives have prostate cancer.

Certain genetic syndromes also increase prostate cancer risk and at a younger age e.g. BRCA and Lynch syndrome. There is also some evidence to suggest that the risk of prostate cancer may be increased in patients with malignant melanoma.

The challenge

The challenge is to try to diagnose clinically relevant prostate cancers earlier without over diagnosing cancers which would never have caused clinical problems and to avoid unnecessary over treatment and resulting comorbidity.

What tests do we have for men who have not previously been diagnosed with prostate cancer and what does the data tell us? We need to divide this into men without symptoms and men with symptoms.

Men without symptoms

PSA testing has been available for a long time but has poor specificity and sensitivity for prostate cancer.

Routine PSA screening is a controversial subject. PSA tests are unreliable and can suggest prostate cancer when no cancer exists (a false positive result). Most men are now offered an MRI scan before biopsy to help avoid unnecessary tests, but some men may have invasive and sometimes painful biopsies for no reason. Furthermore, around 1 in 7 of those with prostate cancer have normal PSA levels (a false negative result), so cases may be missed.
The PSA test can find aggressive prostate cancer needing treatment but it can also find slow-growing cancer that may never cause symptoms or shorten life. Some men may face difficult decisions about treatment, although this is less likely now that most men are offered an MRI scan before further tests and treatment.

Although screening has been shown to reduce a man's chance of dying from prostate cancer, it would mean many men receiving treatment unnecessarily. As a result there is currently no prostate screening programme in the UK but since 2016 asymptomatic men aged 50 years or older have been able to discuss having a PSA test with their GP as per the prostate cancer risk management programme.

There is also no evidence to support digital rectal examination alone as a prostate screening tool in asymptomatic men.

So what do we do?

This is clearly confusing and complex both for primary care clinicians and their patients. The answer will depend very much on the individual patient's risk and how that particular patient feels about their risk. Our role as clinicians advising men is really an information intervention to facilitate enabling the man to make a decision about testing and intervention that the man is happy with.
We can discuss individual risks with the man e.g. ethnicity, family history and signpost to clinical decision support information.

Useful resources:

For clinicians:

- Gateway C education module 'Responding to a PSA screening request'
- Prostate Cancer Risk Management Programme Advising men without symptoms of prostate disease who ask about the PSA test

- BMJ Editorial Diagnosing prostate cancer in asymptomatic patients
- Wessex Cancer Alliance Support Pack for the PCN DES 22/23 (link tbc)

For patients:

- Prostate Cancer Risk Management Programme – PSA Testing and Prostate Cancer: Advice for men without symptoms
- NHS information 'Should I have a PSA test?'
- Prostate Cancer UK 'Are you at risk?'
- Cancer Matters Wessex – Prostate Campaign
- Risk calculators such as those developed by Prostate Cancer UK or the Prostate Cancer Research Foundation may be useful in helping people consider their risk factors

Men with symptoms

NICE NG12 guidance tells us that we should be thinking about prostate cancer in patients who present with lower urinary tract symptoms (nocturia, frequency, hesitancy, urgency, retention), or erectile dysfunction or visible haematuria and to consider a PSA test and digital rectal examination in these patients.

NICE suggests PSA thresholds for referral of
40-49 years PSA > 2.5
50-59 years PSA > 3.5
60-69 years PSA > 4.5
70-79 years PSA > 6.5

and to use clinical judgment below 40 years and above 79 years. We need to consider overall life expectancy.

PSA is part of the assessment for patients presenting with nonspecific symptoms e.g. unexplained weight loss, bone pain and would be expected if prostate examination is abnormal.

Many patients over the age of 50 years have some degree of lower urinary tract symptoms. Locally urology suggests that an IPSS score (International Prostate Screening Score) of 8 or more is relevant.

Summary of guidance for PSA testing for a fully informed man

Consider discussing PSA testing with asymptomatic men:

- Age 50 to 79 - for those at average prostate cancer risk
- Age 45 - for those at high risk e.g. black men, one first degree relative diagnosed < 65 years
- Age 40 - for those at very high risk e.g. more than one first degree relative diagnosed < 65 years, those with BRCA or Lynch syndrome depending on individual genetics advice

Offer PSA testing to symptomatic men:

- With lower urinary tract symptoms scoring 8 or more on IPSS
- Erectile dysfunction
- Visible haematuria
- Prostate feels abnormal on digital rectal examination
- If there is 5% or more unexplained weight loss in the past 3 months

- Persistent bone pain

Additional things to remember when ordering and interpreting PSA testing

PSA needs to be avoided

For 6 weeks following a urinary infection, bladder or prostate tests or urinary catheter insertion
For 7 days following anal sex or Prostate stimulation
For 48 hours following vigorous exercise or ejaculation

Certain drugs can affect PSA levels

Finasteride and dutasteride reduce PSA levels by 50% - remember to multiply the result by 2 when considering referral thresholds.

Optimal intervals for repeat PSA testing in those without symptoms are unknown. Trials suggest this could be every 2 years for those at risk but could be every 8 years for those at low risk with an initial PSA <1 aged 40 years or PSA <2 aged 60 years in those without a family history.

Conclusion

Providing men with information about their underlying risk of prostate cancer and the advantages and disadvantages of currently available testing is important. Ensuring that this information is widely available to all in a format that the individual can understand is important.