



Medicine for Managers

Dr Paul Lambden BSc(Hons) MB BS BDS(Hons) FDSRCSEng MRCSEng LRCPLond DRCOG MIHSCM

Prostate Cancer – To Test Or Not To Test

Cancer seems to be a topic in the press and on radio and television on a daily basis and there has been attention on Prostate Cancer and whether routine testing should be available. Like so many 'simple' procedures, the decision to test or not to test is not straightforward because of the nature of the disease, the variation in the seriousness of the disease and, perhaps most importantly, the reliability of the test.

The facts about Prostate Cancer

It is the most common cancer in men. The earlier that a diagnosis is made, the easier it is to treat.

Three screening questions can be used to assess whether the risk of contracting the disease is increased.

1. **How old are you?** Prostate cancer generally affects men **over 50** and the older one is, the higher the risk
2. **Has you father or brother had prostate cancer?** The disease in a close family member increases the risk
3. **Are you black or mixed black ethnicity?** Black men are at higher risk of developing the disease

Some **inherited gene mutations** increase the risk of prostatic cancer at an earlier age in patients with a family history. Two genes, BRCA1 and BRCA2, called tumour suppressor genes, act to repair cells, preventing cellular errors, and kill

cells that promote cancer growth. Gene defects may result in cancer promoting genes (called **oncogenes**). They affect breast, ovarian and, in men, prostate cancer. About 10% of prostate cancers are linked to inherited genetic changes.

More research is needed but studies suggest that with a BRCA2 mutation, there is a 20-40% lifetime risk of developing prostate cancer. Without the mutation, the risk is about 16%. The BRCA1 mutation only slightly raises the risk of developing aggressive prostate cancer before age 65.

Some people may need genetic testing to establish the presence of BRCA genes, based on careful medical questioning to identify whether inheriting the gene is more likely.

Questioning will include whether family members have had prostate, breast or ovarian cancer, if so, at what age was it diagnosed, has more than one blood relative had any kind of cancer and do other family members have proven BRCA1 or BRCA2 mutations.

Prostate cancer affects men over 50 and risk increases with age. A tumour developing in men over 75 is usually slow growing and is unlikely to affect life expectancy or quality of life.

Men should look out for prostatic symptoms including difficulty and pain during micturition (passing urine) and, less commonly, erectile dysfunction and lower back or hip pain.

Some men defer investigation of prostatic symptoms because of a dislike of the digital rectal examination. However, normally a blood ***prostate specific antigen*** test is better, although the rectal examination may become necessary depending on test results or symptoms.

A high PSA on testing *could* mean the presence of cancer, but it can also be raised as a result of exercise, ejaculation or infection. Confirmation is normally by MRI scan.

Data shows that the PSA test sometimes misses prostate cancer. 1 in 7 men with a normal PSA may have prostate cancer and 1 in 50 men with a normal PSA level may have a fast-growing tumour.

In the UK about 55,000 men are diagnosed with prostate cancer in the UK and about 12,000 die annually. It is the most common cancer without a screening programme.

The ***UK National Screening Committee*** (NSC) has advised ***against*** universal prostate cancer screening, even for black men or those with a family history, on the basis that to do so might cause more harm than good.

This is based on evidence of difficulty in distinguishing aggressive tumours from low-risk tumours and high rates of false-positive and false-negative results.

It does however, propose screening for men with BRCA1 and BRCA2 gene variants. The NSC is currently running a 12-week public consultation and has commissioned further research to evaluate potential screening strategies.

There is currently much research continuing into the disease and its early diagnosis.

A reliable test and an appropriate schedule of testing across the most relevant ages must be identified.

The interests of Black men do not appear to be fully represented, and the significant numbers of false negative tests are of great concern.

Screening BRCA carriers will save lives but to do so is only a small part of the overall benefit of total accurate diagnosis.

Prostate Cancer UK is engaged in a ***TRANSFORM*** study looking at combinations of PSA testing, genetic testing and MRI scanning, in the hope that all at-risk men will be invited for appropriate tests to find aggressive cancers in good time for an effective cure.

paullambden@compuserve.com
