PSA (Prostate Specific Antigen)

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 it 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 urethra) that carries urine from the bladder out through the penis. Because of this, problems affecting the prostate gland can sometimes affect how you urinate as well as possibly changing your sexual function.

What do we know about prostate cancer?

Prostate cancer is the most common cancer and the second most common cause of cancer deaths in men in the UK. Each year in the UK about 35,000 men are diagnosed with prostate cancer and 10,000 die from the disease. Prostate cancer is less common in men below the age of 50 years and the average age at diagnosis is 70 to 74 years. The risk is greater for men who have a family history of prostate cancer and black-African and black-Caribbean men. Prostate cancer is also more common in western countries, suggesting that there may be a link with lifestyle factors, such as diet.

Prostate cancer can grow slowly or very quickly. Slow-growing cancers are common and may not cause any symptoms or shorten life.

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- Each year in the UK about 35,000 men are diagnosed with prostate cancer and 10,000 die from the disease.
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What is a PSA test?

The PSA test is a blood test that measures the level of PSA (prostate specific antigen) in your blood. PSA is made by the prostate gland and some of it will leak into your bloodstream depending on your age and the health of your prostate.

A raised PSA level may mean you have prostate cancer. However, other conditions which are not cancer (for example, enlargement of the prostate, prostatitis, urinary infection) can also cause higher PSA levels in the blood. About 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.

What happens after a PSA test?

There are usually three main options after a PSA test:

- If your PSA level is not raised, you are unlikely to have cancer and no immediate further action is needed although, you may have further tests to confirm the result.
- If your PSA level is slightly raised, you probably do not have cancer, but you might need further tests including more PSA tests.
- If your PSA level is definitely raised, your GP will arrange for you to see a Specialist for further tests to find out if you have prostate cancer.

If the PSA level is raised, what further tests would be carried out?

If your PSA level is raised, a prostate biopsy may be needed to check if you have cancer. This means taking samples from the prostate through the back passage. Many men find this an embarrassing and uncomfortable experience and some describe it as painful although local anaesthetics should help. Sometimes the biopsy may lead to complications (such as blood in the semen and urine) or infection. About 2 out of 3 men who have prostate biopsy will not have prostate cancer. However, biopsies can miss some cancers and you may not know for sure that you do not have cancer after a clear result.

- A raised PSA level in your blood may mean cancer but you may still need a prostate biopsy to find out if you have cancer.
- About 2 out of 3 men who have a biopsy will not have prostate cancer.

If early prostate cancer is found, what are my options?

Your main options for dealing with early prostate cancer are shown below. You should talk to your consultant about the benefits and risks of any option before you begin. You should know that side effects of radical treatment include a change in sexual experience and infertility.

- **Surgery** involves an operation to remove the prostate gland. The aim is to cure the cancer but there are possible side effects. Up to 3 in every 20 men may experience some bladder problems and up to 8 out of every 10 men may have problems getting or maintaining an erection after surgery. Some men may be able to orgasm but will not be able to ejaculate, which means fertility is affected.

- **Radiotherapy** involves a course of radiotherapy treatment on the prostate gland at an outpatient clinic (external beam) or with radioactive implants (brachytherapy). The aim is to cure the cancer but there are possible side effects. After external beam radiotherapy, half of those treated may have problems getting or maintaining an erection and may not be able to ejaculate. Up to 3 in 10 men may have diarrhoea or bowel problems and up to 1 in every 25 men may have bladder problems or maintaining an erection, or may not be able to ejaculate. Up to 1 in every 15 men may have bladder problems.

- **Active surveillance, active monitoring or watchful waiting** involve regular check-ups to check the cancer is not growing. With active surveillance and active monitoring you would be offered treatment, with the aim of curing the disease if the cancer grows. With watchful waiting, treatment will be offered to slow the cancer growth. An advantage of these methods is that they avoid the side effects of radiotherapy and surgery. A disadvantage is that the cancer may grow to a more advanced stage and PSA tests and biopsies may need to be repeated. You may find the uncertainty difficult to cope with.

- **Other effective treatments** include hormone therapy, chemotherapy, high intensity focussed ultrasound and cryotherapy which all have side effects. These treatments may only be available as part of a clinical trial.

Should I have the PSA test?

The benefits of PSA testing:

- It may reassure you if the test result is normal.
- It may give you an indication of cancer before symptoms develop.
- It may find cancer at an early stage when treatments could be of benefit.
- If treatment is successful, the worse possible outcomes of more advanced cancer, including deaths are avoided.
- Even if the cancer is more advanced and treatment is less successful, it will usually extend life.

The limitations of PSA testing:

- It can miss cancer and provide false reassurance.
- It may lead to unnecessary worry and medical tests when there is no cancer.
- It cannot tell the difference between slow-growing and fast-growing cancer.
- It may make you worry by finding slow-growing cancers that may never cause symptoms or shorten your life.
- 48 men will undergo treatment in order to save one life.

The following website may help you decide whether the PSA test is right for you:

PROSDEX at http://www.prosdex.com