#### About the prostate

The prostate is a gland about the size of a walnut. It is situated immediately below the bladder. The prostate gland surrounds the urethra, which passes urine from the bladder to the end of the penis. Therefore any swelling of the prostate may cause flow problems. While there is gradual growth with aging, additional enlargement can result from infection (prostatitis) or cancer.

#### **About prostate cancer**

Prostate cancer is a close second to lung cancer as the most common cause of cancer deaths in men – over 10,000 each year in the UK. It is a disease of older men, being uncommon in those under 50. But the numbers are rising for all ages. There is a higher likelihood of getting prostate cancer if you have a family history of the disease.

Over 35,000 diagnoses are made each year. As prostate cancer often does not have obvious symptoms, the cancer may have already spread outside of the prostate gland in about half of newly diagnosed cases. In these cases, radical surgery is no longer possible. Sometimes prostate cancer is not diagnosed until secondary cancers begin to cause pain.

#### **Symptoms**

If you experience any of the following symptoms, it is important that you tell your doctor without delay. The symptoms may well be due to a condition other than cancer. Early diagnosis gives the widest choice of treatment options and the best chance of a successful outcome:

- \* Passing water often, especially at night
- \* Poor or stop-start flow or dribbling
- \* Sudden, urgent need to go to the toilet
- \* Pain when passing water
- \* Blood in the urine or semen
- \* Pain in the groin
- \* Inability to get or maintain an erection
- \* Pain in the lower back, spine or hip

#### Screening for prostate cancer

There is no national screening programme for prostate cancer in the UK. However, if you are concerned and over the age of 50, (especially if any close relatives have had prostate cancer) you can request a PSA (prostate-specific antigen) blood test from your GP or doctor. Some people argue that the introduction of

screening would increase the number of men diagnosed at a stage when there are more treatment options available and reduce the number of men dying of prostate cancer. But many health professionals are concerned about how effective screening would be. At present, about 75% of men with early cancer survive for more than ten years.

#### **Tests**

The Digital Rectal Examination (DRE). This involves the doctor putting a gloved finger into the back passage to feel if the prostate is enlarged or lumpy. This can be embarrassing, but it is very important not to let such feelings delay a visit to the doctor.

*PSA Test.* Prostate cells produce a substance called PSA, some of which gets into the blood. A higher than normal blood PSA level may be due to infection, benign prostatic hyperplasia (BPH) or prostate cancer.

*Biopsy.* If your PSA is higher than normal, your GP may refer you to hospital to see a consultant urologist, who may arrange for a biopsy. This involves taking several samples of tissue from the prostate for examination under a microscope to see if they are cancerous.

Scans. If there is a tumour, the consultant may arrange for one or more scans to find out exactly where and how large it is, and if there has been any spread beyond the prostate gland. With low grade, low volume and a low PSA, scans may not be needed.

#### **Treatment**

- 1) Surgery to remove the whole prostate gland. This is usually only appropriate when the tumour is small and contained entirely within the prostate.
- 2) Irradiation of the gland by: External X-ray Beam (radical radiotherapy). The treatment 'beams' match the shape of the prostate, and do less damage to the surrounding tissues.

Intensive Modulated Radiation Therapy (IMRT). This is now the treatment of choice in hospitals such as Addenbrooke's and is routinely given to all patients. It modifies the intensity of treatment so that a higher dose can be delivered to the prostate while minimising the dose to surrounding tissues. It also allows simultaneous high dose treatment to the prostate, and a lower dose to be given (when needed) to local lymph glands.

Image Guided Radiotherapy Treatment (IGRT). This is offered to most prostate cancer patients at Addenbrooke's. It allows treatment radiographers to 'see' the prostate each day as treatment is given, which aids accuracy. It is done in one of two ways; either on a machine called a Tomotherapy unit (which combines the function of treatment machine and CT scanner) or by using three small, gold markers that are implanted into the prostate. These are put into position before treatment is planned and are permanent, non-radioactive seeds. The implantation takes about 10 minutes and is done under local anaesthetic.

External Beam Radiotherapy. This is suitable both for early, low grade tumours and for more advanced disease where there may be some local spread.

Brachytherapy. This involves placing radioactive seeds inside the prostate gland. This therapy is used for small, contained tumours and slightly larger ones, where there may have been some local spread. This can be done in two ways; using either LDR (Low Dose Rate) or HDR (High Dose Rate) techniques, which are equally effective. LDR is used at Addenbrooke's, and involves permanently implanting several small radioactive seeds into the prostate gland. The is done under general anaesthetic and usually involves an overnight stay in hospital.

3) Hormone Treatment. This treatment stops the cancer growing by suppressing the effects of the male hormone testosterone, which prostate cancer cells need to develop. In advanced disease, hormone treatment can sometimes make symptoms disappear completely and can control the disease for some considerable time, often years.

Unfortunately, it may cease to work after some time and the cancer can begin to grow again. Hormone treatment is usually given for between 3 – 6 months before external beam radiotherapy is given, and continues until at least the end of radiotherapy. Some men with more aggressive disease need to continue hormone treatment after the radiotherapy is completed for between 6 months and 3 years.

#### 4) Active Surveillance

Because prostate cancer usually grows slowly (except in its later stages), there is often no need to rush into

making the very difficult choice between treatments. Some men put their quality of life before quantity and defer treatment until symptoms are troublesome and their PSA level is high. With early, low-grade disease 'active surveillance' (aka watchful waiting) may be the right choice for you. This is recognised by NICE (the National Institute for Health and Clinical Excellence) as a valid form of care for men with no troublesome symptoms.

PSA checks are made at regular and frequent intervals, and after a number of years, a repeat biopsy may be taken to check that there has been no change in the tumour. Patients who opt for active surveillance are carefully monitored so that if there is any suggestion of tumour growth, patients will be offered a more active form of treatment and choices will be discussed with them before implementation.

#### 5) Palliative Care

When active treatment is no longer effective, it is still possible to tackle problems and pain advanced cancer may cause. Palliative care is about preserving quality of life.

#### **Unwanted side-effects of treatment**

Surgery may damage the nerves to the penis and can cause permanent loss of erection (impotence). Where possible, nerve-sparing surgery is used. There is usually some degree of incontinence for a few weeks after surgery. Most patients find that this clears up over a period of time but some men are left with varying degrees of incontinence. Please discuss this with your surgeon for further information.

Radiotherapy may cause tiredness which can persist for a while after treatment has been completed. It can irritate the bladder, causing a temporary increase in the need to pass urine, possibly with some discomfort.

Radiotherapy can also cause rectal discomfort and diarrhoea. These symptoms can be controlled with medication and usually settle after treatment has been completed. After radiotherapy, some men have reduced or no erectile function. This can be helped in a number of ways and you can be referred to an erectile dysfunction specialist for advice. More recent treatments like IMRT can reduce these side-effects.

Brachytherapy is a much more localised treatment and usually causes less damage to nearby organs.

By suppressing the effects of testosterone, hormone therapy may lead to the development of breast tissue and hot flushes. The adverse effects of treatment can vary from mild to severe, but are usually moderate. Most men living with prostate cancer continue to enjoy life after treatment.

### Cambridgeshire Prostate Cancer Support Association: who are we?

We are a very active support group who have raised over £70,000 (since 2003) for equipment and services at Addenbrooke's and Hinchingbrooke Hospitals. We support men who have had treatment for prostate cancer, their wives or partners, and their family and friends. Chairman Don Gibbs says, "When I was diagnosed, there was no such group as ours, no one to talk to, nowhere to turn for support. Now you can talk to patients who are having (or have had) many types of treatment for prostate cancer."

We are members of the Prostate Cancer Support Federation, registered charity number 1123373.

The National Prostate Cancer confidential helpline number is: 0800 074 8383 (Mon-Fri 10am-4pm, Weds 7pm-9pm)

Or why not call one of our support group contacts (details on our website) for more information or simply for a chat.

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# Hit "BELOW" the belt ?



## Prostate cancer doesn't play fair!!

#### Cambridgeshire Prostate Cancer Support Association (CambsPSA)

Patron:

Dr Hayley Whitaker, Ph.D.

Registered charity no. 1133410

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