This leaflet has been written in collaboration with the oncologists, urologist, radiologist, radiographers, and urology nurses on the brachytherapy team.

I would like to thank the Mount Vernon Cancer Centre and The Leeds Teaching Hospitals for assisting/providing information for the making of this leaflet.

National helpline numbers

Prostate Cancer UK Website: **www.prostate-cancer.org.uk**
Specialist nurse tel: **0800 074 8383**

Macmillan Cancer Support Website: **www.macmillan.org.uk**
Tel: **0808 808 00 00** (seven days a week, 8am-8pm)

Cancer Research UK Website **www.cancerresearch.org.uk**
Telephone: **0300 123 1022** (Mon-Fri, 8am - 6pm)
Specialist nurse tel: **0808 800 4040** (Mon - Fri, 9am-5pm)

Local helpline numbers

DORAH (Dorset Radiotherapy Helpline)
Tel: (answerphone) **0300 019 2481**.
If you leave a message and your name and number, a radiographer will get back to you as soon as possible.

To read this leaflet in a different language, please visit our website: **www.uhd.nhs.uk/visit/patient-information-leaflets** and use the language and accessibility function available along the top of the site.

To ask for this leaflet in larger print, please contact the patient experience team on **0300 019 8499** or email **uhd.patientexperienceteam@nhs.net**.

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t: 01202 665511 w: www.uhd.nhs.uk
: @UHDTrust : @uhd_nhs

NHS
University Hospitals Dorset
NHS Foundation Trust

Dorset Cancer Centre

Low dose rate prostate brachytherapy service

Patient information booklet and treatment record

t: 01202 665511 w: www.uhd.nhs.uk
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Some of our hospital services are moving.
Visit **www.uhd.nhs.uk/future** to find out more.

Contact list:

Poole

Brachytherapy team - **0300 019 2047**

Uro-oncology specialist nurse practitioner - **0300 019 8635**

Royal Bournemouth

Urology clinical nurse specialist team - **0300 019 4977**

Uro-oncology specialist nurse team - **0300 019 4969**

Dorchester

Urology oncology nurse specialist - **01305 255695**

Urology specialist nurse team - **01305 255145**

Consultants

Mr Wedderburn - urologist at the Royal Bournemouth
Secretary - **0300 019 4945**

Dr Masters - oncologist
Secretary - **0300 0192492**

Dr Brock - oncologist
Secretary - **0300 019 8435**

Dr Roberts - oncologist
Secretary - **0300 019 8435**

Emergency post implant contact

RBH surgical admissions - **0300 019 6009 / 0300 019 6435**

Dorchester emergency department - **01305 255541**

Patient record sheets

You can use these to record your blood test results, side effects, medicines, and any questions that you wish to ask.

Date	PSA results	Comments

Medicine	Reason for taking	Dose	How often

Preparation for the procedure

You will have to attend a pre-operative assessment at the hospital before the implant. This is to ensure you will be able to have a general anaesthetic. The pre-operative assessment will be carried out in advance as it is valid for six months. A telephone appointment will also be arranged with one of the brachytherapy team to discuss the procedure and answer any questions you have.

Alpha blocker (usually Tamsulosin) should be taken one week before your procedure and continued for six months to a year afterwards. This will help with urinary frequency and reduce the risk of urinary retention. Your GP will be asked to provide a prescription.

The procedure

On the day of the procedure you will be admitted onto the ward for an overnight stay. You will be collected from the ward and taken to brachytherapy. For the procedure you will be under a general anaesthetic. A catheter will be inserted into your bladder. Once the catheter is in place an image of your prostate will be taken using a transrectal ultrasound which is inserted into your back passage. These images are used to plan your treatment. Needles are inserted into the prostate via the skin between your scrotum and anus and the radioactive seeds are placed into the prostate through these needles.

Once the seeds are in place the needles are removed. After the treatment you will be woken up in the recovery area. The procedure will take about one and half to two hours to complete. You will then be taken back to the ward for an overnight stay. The catheter may stay in overnight if necessary. You must stay on the ward for radiation safety. Please inform a member of staff if you smoke so that you can be provided with nicotine patches.

The risk to other people around you is very low, but we do have some guidelines for the first two months following the implant:

Do not sit children (under the age of puberty) on your lap or sit very close to them for long periods of time (less than one metre). You may cuddle or hold them for a few minutes a day and be in the same room with them as long as you wish. This also applies to anyone you know who may be pregnant. There are no restrictions on travel or physical contact with other adults.

You may have sexual intercourse when you feel comfortable to do so. However for the first two months after the implant you should use a condom during any sexual activity as there is a small risk of passing a seed in the semen. Condoms should be disposed of by double wrapping them and placing them in the dustbin.

Occasionally a seed may be passed in the urine, so just double flush the toilet if you think this has happened. If a seed is found on the bed, use a spoon to pick it up (not your fingers) and again double flush it down the toilet. If this happens, please mention it at your next visit to the consultant.

Please call us if you are unsure about any of these instructions.

Information card

After your implant you will be given a card detailing your treatment, with information and contact numbers on it.
You should carry this card for three years after the implant. Please let your next of kin know about this card, so that in case of unforeseen illness or death, they can bring it to the attention of the attending doctor. For any hospital care during this three year period, it is important the details of your implant are known.

In accordance with medical and dental guidance notes from the National Radiological Protection Board (NRPB), in the unlikely event of accidental or sudden death occurring within 20 months of the implantation, it is recommended that cremation not be performed.

Low dose rate prostate brachytherapy service

It is important to show hospital staff and the funeral director the information card, so they can ask for advice if necessary.

You are advised to take this information card with you when travelling for three years following the implant. Many airports have radiation detectors installed which can be very sensitive. You may need to show your card which details the treatment you have had. If you are intending to fly within the first two months, you should book a window seat. You must ensure the person next to you is an adult and is not pregnant, in order to reduce the risk of radiation exposure to children under the age of puberty.

The card may be destroyed after three years.

Follow-up

We will write to your GP once you have finished your treatment to inform them of what you have had done and to advise them about possible side-effects. We will ask them to continue with your prescription of Tamsulosin.

You will have a follow up appointment with your oncologist three months after your implant. You will be followed up by telephone clinic by the brachytherapy radiographers in which your PSA blood test will be monitored closely. Follow-up with oncology will be for five years. If at any time you are concerned, please contact us for advice.

Introduction

This leaflet provides information for those who are thinking about, or who have decided to have, low dose rate (LDR) brachytherapy treatment for prostate cancer. We hope this will answer any questions that you, or people close to you, may have. This leaflet is only a guide and does not contain every detail about your treatment. If you have any questions or would like further information, please ask any member of the team.

LDR brachytherapy is one way of treating prostate cancer. Other treatments include surgery, radiotherapy, hormone therapy, and active surveillance. LDR brachytherapy treatment is not right for every patient. Your consultant will have discussed all your treatment options with you.

What is LDR brachytherapy?

LDR brachytherapy is used to treat prostate cancer by permanently inserting tiny radioactive seeds of Iodine-125 (I125) into the prostate gland. The radioactive seeds emit a low level of radiation, especially over the first three months. The release of radiation will last for about one year post implant. Each seed is 4.5mm in length and 0.8mm thick.

The seeds are inserted using needles with the help of a transrectal (via the rectum) ultrasound probe that guides the needles into the prostate. This ensures the seeds are implanted accurately, allowing high doses of radiation to be delivered to the prostate. Since only a small area is affected by the radiation from each seed, the surrounding organs such as the rectum and the bladder receive a relatively small dose of radiation.

Size of seed

Post implant CT

Approximately six weeks after your implant you will need to return to the radiotherapy department for a CT scan. The purpose of this scan is to have a record of the seed positions. The radiographers will discuss this with you in more detail at your pre-procedure telephone call. This is not a **diagnostic scan**.

Side effects

For the first week or so after treatment you may experience the following:

- blood in your urine, ejaculate, or stools (poo)
- bruising and inflammation around the skin between your scrotum and anus
- discomfort when passing urine (weeing)

Radiation side effects usually occur around 7-10 days after the implant, reaching a peak at about 6-8 weeks before gradually settling down. These side effects are listed below:

Bladder side effects:

Urinary side effects may include:

- **blood in urine**
- **burning sensation when weeing**
- **urinary frequency (needing to wee often)**
- **urinary urgency (needing to wee with urgency)**
- **poor flow - slow to start**
- **increased weeing at night (nocturia) - one to two times more than normal**
- very occasionally leaking can happen if you are unable to reach a toilet in time.
- **urinary incontinence** - occurs in less than 2% of patients who have not had prior prostate surgery.
- **urinary retention** (unable to wee) - occurs in a small percentage of patients.

To help manage these side effects we recommend you:

- **drink plenty of water (two to three litres per day)** to help flush out your system, reduce any blood clots, reduce irritation, frequency, and urgency.
- **drink cranberry juice or lemon barley water** to help reduce irritation, frequency, and urgency. **Do not drink cranberry juice if you have been prescribed warfarin**.
- **reduce your water intake a couple of hours before bedtime** to help reduce the number of times you will need to get up.
- **cut out caffeinated drinks e.g. tea, coffee and cola** to reduce irritation, frequency and urgency.
- **cut out alcoholic drinks** to reduce irritation, frequency, and urgency.
- **sit down while weeing** as this may help with poor flow. Taking a warm bath may also help.
- **if retention happens while you are on the ward** a catheter will be reinserted. Your district nurse will be informed and will monitor this after you leave hospital and advise accordingly.
- **if retention happens after you have been discharged** it is important to contact either RBH surgical admissions or Dorchester emergency department (see telephone number in the front of this book). Let them know what treatment you have had so they can treat your retention appropriately. If you have been catheterised, it is likely to stay in place for several weeks until the maximum swelling has settled.

Bowel side effects:

Changes to your bowel movements - you may experience loose bowel movements (diarrhoea) or constipation. You may also experience increased wind. You may be advised to alter your diet to help with this side effect.

Bleeding from your back passage (bottom) - if you experience blood in your poo, or blood when wiping, please inform a member of your treatment team.

Increased urge - you may want to open your bowels more often due to an inflamed prostate - this should gradually settle.

The rectum may also become inflamed, causing a burning sensation after opening your bowels. If this is not controlled by pain killers, please contact your GP.

We strongly advise you do not have an anterior rectal biopsy or a trans-rectal biopsy after having this treatment. This is due to the high radiation dose to the rectum overlying the prostate. Also, if you need an investigation of your bowel, ask the relevant consultant to contact us.

Ejaculation/impotence:

The semen may be discoloured - brown or black for the first few ejaculations after the implant. This is caused by bleeding during the procedure.

Painful ejaculation - this tends to settle after a short while.

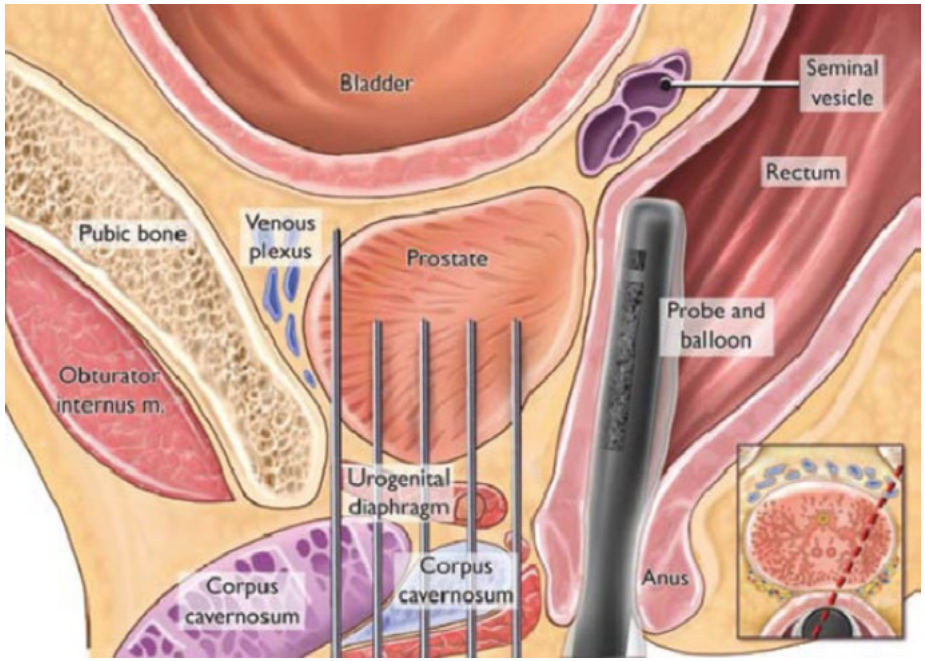
Dry ejaculation - you may produce less semen or no semen. This is also known as a 'dry orgasm'. This can be permanent.

Impotence (the inability to achieve an erection) occurs in 20-30% of patients under the age of 60 and more frequently for those over 60. If this is a problem, please discuss it with your consultant, urology nurse, or GP, as there are treatments for this condition. It is therefore important you start on a prescription of a suitable PDE-5 inhibitor such as Viagra or Cialis to help support you, especially if you want to remain sexually active.

Radiation information

The iodine seeds are a low energy radioactive material, and the body absorbs most of the radiation they give out. The radiation given out reduces over time, with most of the dose being given in the first 2 months after the implant.

Diagram of the insertion of the needles into the prostate



After the implant

The catheter will be removed after the implant. It is important that we are sure you can wee without a catheter before you leave hospital. The following morning the brachytherapy radiographers will go through all the precautions you need to take. They will make sure you have all the documents and information for your first follow-up appointment and post implant CT.

Antibiotics are not given routinely as you will be given IV antibiotics during the procedure.

Due to having an anaesthetic, you should not drive for 24 hours. Due to the bruising, do not lift heavy weights for a few days following the procedure. You can return to work as soon as you feel comfortable.

Low dose rate prostate brachytherapy service