

Prostate brachytherapy using permanent implants

Patient Information Series PI 51

Contacts

Switchboard	020 3826 2020
Secretary to Professor Peter Hoskin:	020 3826 2436 (9.00am to 5.00pm)
Secretary to Dr Peter Ostler:	020 3826 2432 (9.00am to 5.00pm)
Secretary to Dr Roberto Alonzi:	020 3826 2431 (9.00am to 5.00pm)
Secretary to Dr Rob Hughes:	020 3826 2435 (9.00am to 5.00pm)
Ward 10 (Mount Vernon Hospital):	020 3826 2022 (out of office hours)
Brachytherapy Unit:	020 3826 2629 (office hours Mon - Thurs)
Lynda Jackson Macmillan Centre.....	020 3826 2555

24 hour Acute Oncology Service
Mount Vernon Cancer Centre: 07825 028855


East and North Hertfordshire
NHS Trust



Appointment details

Planning ultrasound:
Please bring a list of your medications with you.

Seed implant:
Please report to Ward 10 Mount Vernon Hospital /
Bishopswood Hospital at 7am on the day of admission.

Follow-up details: 1 month after treatment

Ct scan:

MRI scan:

When you arrive please book in at the Cancer Centre
Reception Desk.

3 months after treatment telephone review:

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Please have a PSA blood test at your GP surgery **2 weeks**
prior to this appointment and have the results ready for the
telephone review.

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Introduction

This leaflet aims to explain what happens when you have permanent seed implant or low dose rate brachytherapy to treat your prostate gland.

Whilst it doesn't cover all the issues, it is a guide to help you to understand more about this treatment and the procedure involved.

The cancer specialist is in charge of your care, and in this leaflet we will refer to him/her as the oncologist¹. There will also be a team of other hospital staff caring for you.

What is brachytherapy?

Brachytherapy is a form of radiotherapy given by introducing a radiation source directly into the area we wish to treat.

In the case of the prostate gland, we can do this with permanent implants of radioactive iodine 'seeds'.

This leaflet explains about using permanent implants.

The advantage of brachytherapy is that the radiation treatment is concentrated to the prostate gland. The sensitive structures nearby (such as the bladder and the rectum) receive a much lower dose, which reduces the likelihood of complications.

¹ Throughout this leaflet the term 'oncologist' will refer to both your cancer specialist (oncologist) and any doctors working within his/her team.

What does this treatment involve?

There are two stages to your treatment:

- Stage one is when we measure the size and shape of your prostate; this is called the volume study (see page 7)
- Stage two is your actual treatment. This is when low energy radioactive iodine 'seeds' are placed directly into your prostate gland. Iodine seeds look like silver grains of rice. The radiation given out by these seeds is nearly all absorbed within your prostate gland, and therefore does not present a significant radiation risk outside your body

Please contact the brachytherapy team if you have any holidays booked or if there are specific dates that you would not be available for the procedure (See contacts on page 2).

Is it suitable for all patients with prostate cancer?

No, this treatment is only suitable for patients who have early prostate cancer, with no evidence of spread beyond the prostate gland.

It is not usually suitable for patients who have recently had an operation to enlarge the urine passage through the prostate (known as a TURP), because this would greatly increase the risk of incontinence.

It is also not usually suitable where there is any risk of early spread of cancer through the edges of the prostate gland. This can be predicted from a combination of your PSA level, Gleason Score and scan findings.

Your oncologist can explain this to you in more detail if you wish.

What happens when I have the volume study?

The first thing we will do is measure the shape, size and volume of your prostate gland.

- It is very important that the iodine seeds are placed evenly in your prostate gland with enough seeds to cover the entire gland in all three dimensions
- The most accurate way of achieving this is with a transrectal prostate ultrasound. This will be done as an outpatient. It involves placing an ultrasound probe inside your back passage (rectum)
- During the procedure, we will measure the length, height and width of your prostate gland to calculate its volume. From this we can work out exactly how to distribute the iodine seeds within your prostate gland

After this procedure you will be given information about the implant, and you will have the chance to ask any questions.

If you are having your implant at Mount Vernon Hospital you will be given all of your pre-admission information at this appointment. You will also need to have a blood test and an ECG (echocardiogram).

If you are having your implant at Bishopswood Hospital, they will contact you with a separate pre-admission appointment date.

MRSA

MRSA is a type of bacteria that is resistant to several widely used antibiotics. This means infections with MRSA can be harder to treat than other bacterial infections. The full name of MRSA is Methicillin-Resistant Staphylococcus Aureus. You might have heard it called a "superbug".

MRSA infections mainly affect people who are staying in hospital. They can be serious, but can usually be treated with antibiotics that work against MRSA.

MRSA lives harmlessly on the skin of around 1 in 30 people – usually in the nose, armpits, groin or buttocks. This is known as "colonisation" or "carrying" MRSA. Having MRSA on your skin doesn't cause any symptoms and doesn't make you ill. You won't usually know if you have it unless you have a screening test before going into hospital.

As you will be admitted to hospital for a day, you will need to have a simple screening test to check your skin for MRSA before you're admitted. Swabs will be taken from your nose and groin. This is painless and only takes a few seconds. The results will be available within a few days.

If you are carrying MRSA, you may need treatment to remove the bacteria to reduce your risk of getting an infection or spreading the bacteria. This usually involves an antibacterial cream for your nose and an antibacterial wash for your skin.

If you are not carrying MRSA, it is unlikely you will be contacted about the result.

For more information go to: www.nhs.uk

When will the treatment be given?

We will give you your treatment 4 - 6 weeks after your volume study.

Do I need to stop my medication before the treatment?

If you are taking any blood thinning medication, for example Clopidogrel, Warfarin, Apixaban, Rivaroxaban or Dabigatran, you will be given instructions about when to stop these before your procedure. If you are taking one of these medications and have not been advised to stop it, please contact the brachytherapy team **urgently** on 020 3826 2629 for advice.

How do I prepare for treatment?

It is important that your bowel is empty for the procedure. This is because a transrectal ultrasound is used to guide the seeds into place in your prostate gland. For this reason we will ask you to use micro-enemas (Miralax). An enema is an injection of liquid into the back passage to make your bowels easy to empty.

Do not use the enema if:

- you are allergic to: sodium citrate, sodium alkylsulphoacetate, sorbitol solution, glycerol or sorbic acid
- you have any bowel disease such as Crohns disease or ulcerative colitis. (Miralax is suitable for use with irritable bowel syndrome and diverticulitis if controlled.)
- you have a previous history of rectal or bowel cancer unless previously approved by your oncologist

How to use Miralax micro-enemas

You can either lie on your side with your knees bent up towards your tummy or you can sit on the toilet:

- pull or twist off the top of the Miralax tube
- squeeze a drop of the liquid out on to the nozzle to lubricate it
- insert the full length of the nozzle into your back passage
- gently squeeze the tube until it is empty
- continue to squeeze the tube as you remove the nozzle from your back passage to prevent the liquid from being drawn back into the tube
- wait for the enema to work, this can take between 5 and 15 minutes (can sometimes take longer)

When to take the enemas

Two days before the implant
use one miralax tube in the evening

Day before the implant
use one miralax tube in the evening

Pre-operative fasting

As you will be having a general anaesthetic, you will need to follow these fasting instructions:

- eat normally until 12 midnight
- after midnight clear fluids only i.e water, fruit squash, clear fruit juice, herbal or fruit tea, black tea or coffee. Do not have any drinks with milk them
- do not drink anything after 6.30 am
- please avoid smoking and drinking alcohol the day before your procedure

What happens when I come for treatment?

Please arrive at the ward by 7am. A nurse will admit you to the ward and a doctor will check you are well for the procedure. A senior doctor will then explain the procedure and ask you to sign a consent form. The anaesthetist will also visit you on the ward to make a final assessment regarding the anaesthetic.

What happens during the procedure?

If you are having your procedure at Bishopswood hospital you will be taken directly into the operating theatre.

If you are having your procedure at Mount Vernon Hospital, the operating theatre is in a different building, so you will be taken across in a wheel chair, accompanied by a nurse.

In the anaesthetic room you will be moved onto a trolley and given the anaesthetic. The procedure is usually done with a general anaesthetic so that you will be asleep. Occasionally the anaesthetist may decide a spinal anaesthetic may be more suitable. This means you would be awake, but would not feel anything while it is being done. Around 80 - 100 seeds will be inserted.

On completion of the implant you will be taken to the recovery ward. When you are fully awake a nurse will go back with you to the ward.

You should not have a catheter in place. However, you will feel bruised in the area between your scrotum and your back passage. Please ask your nurse if you need any pain relief.

What happens after the procedure?

You will return to a side room on the ward, where you will recover from your anaesthetic. Once recovered you will be allowed to get out of bed and walk around, but you **must remain in your room**.

You will be encouraged to drink plenty of fluids to help you pass urine. You may find passing urine is difficult to start with, some people feel they have to strain, and you may notice a small amount of blood in your urine. This is quite common.

When you are up and about and able to pass urine you will be allowed to go home, but you will need to be accompanied. **Do not** drive for 24-48 hours following the anaesthetic.

Is it possible for the seeds to come out?

There is a small risk that a seed will move into your bladder or urethra and you will pass it in your urine.

We need to check this, so after the implant you will not be allowed to use the toilet in the ward but will be asked to pass all urine into a bottle/urinal. This will be checked to ensure no seeds have been passed whilst you are in hospital.

For what to do if this happens at home please see page 16.

What happens when I am discharged?

You will be given some antibiotics (Ciprofloxacin) and some Tamsulosin tablets to help with urine flow. Tamsulosin relaxes the muscles at the base of the bladder and relieves some of the symptoms caused by muscle spasms.

Some patients may be given anti-inflammatory drugs which are useful if they find it very painful to pass urine. These include drugs such as Ibuprofen, which can be bought over the pharmacy counter. Or you may consult your GP for stronger drugs if this does not help.

These bladder side effects may persist despite the medication; however, they do settle down after some time.

You will be given a brachytherapy card (the size of a credit card) with the details of your implant. It is important you carry this with you for the next two years. You must show this card to anyone providing you with medical care during this two year period.

What about any side-effects?

The most common side-effect after your implant is the feeling of discomfort when passing urine. This can start in the first few days after treatment. For some patients it can be quite severe and may need medication, while a small number (around 10%) will require a urinary catheter (a small flexible tube used to drain urine from your bladder).

If this happens to you, don't worry as it is usually a temporary measure for a few weeks whilst your prostate gland is still swollen from the treatment.

In the first few days following the implant, you may also have:

- blood-stained urine which usually clears up in a few days
- discoloured semen which can last for a few weeks
- bruising in the treated area, which can spread to your inner thighs and penis
- discomfort spreading to the tip of the penis

What if I have trouble passing urine?

Some people may have trouble passing urine. This is called urine retention. It may occur if your prostate becomes very swollen. It can happen within the first two to four weeks after treatment but only affects about 10% of patients.

If this does happen to you and you find that you cannot pass urine, you will need to go to your **local Accident and Emergency (A & E) Department**. Do not come to Mount Vernon Cancer Centre. Take this leaflet and your card with you and explain that you have had an iodine seed implant.

If they have any concerns ask them to contact us (see contacts on page 2). They will need to pass a small (gauge 14) urinary catheter (a small flexible tube) into your bladder through your urethra. This will allow your urine to drain from your bladder into a bag.

If this is difficult to do and does not work after one or two times of trying, they should not continue without contacting a urology specialist.

How long will the catheter stay in place?

If you have been catheterised, your catheter may be in place for several weeks until the swelling has settled and you can pass water comfortably again. The only way of knowing if you can pass water comfortably is to have the catheter removed in hospital and see if you are able to pass water without it. This is known as 'trial without catheter' (TWOC).

We recommend that you do not try this sooner than two to four weeks after your catheter was inserted. This allows the prostate time to settle down.

What about any long term side-effects?

Erectile dysfunction

About 30% of men who have brachytherapy treatment with permanent implants will find it difficult to maintain an erection in the years following treatment, due to the damage to blood vessels and nerves needed for erections. If you are having hormone treatment or have had difficulty with erectile dysfunction (ED) before treatment then your risk for ED following treatment is higher.

After brachytherapy treatment you may find that you ejaculate less fluid than before. Some drugs you may be taking to help reduce urgency and discomfort when urinating may also temporarily reduce the amount of fluid you ejaculate. This can also be a permanent side effect of brachytherapy treatment for prostate cancer.

Proctitis

As late as 2-3 years after brachytherapy treatment, about 10% of men have mild bowel problems such as inflammation (proctitis). Proctitis can cause some bleeding from your rectum and you may find that you need to empty your bowels more often. Any treatment of the bowel in the years following brachytherapy may be more difficult due to changes in the tissue of the bowel so it is important to contact your oncologist first if you need any further investigations.

Urethral Stricture

There is a risk of scarring around the urethra (urine tube) causing a reduced urinary stream. Around 5% of men may need to undergo a minor procedure to dilate this if it becomes troublesome.

Special instructions for when you are back at home

Radiation safety is a concern for many patients. However, iodine seeds are low energy radioactive materials and the body tissues absorb most of the radiation that they emit.

Also, the strength of the radiation from the seeds reduces with time. The radiation level outside your body, arising from the seeds, is not much greater than the normal background level that exists in the natural environment. The risk to other people around you is therefore very low.

Whilst there are no formal restrictions on your activities when you return home, we suggest you follow the guidelines listed below for a period of two months after your operation, for your own and your family's peace of mind.

- You may be given more specific advice if your partner is already pregnant, or if you later advise us that she becomes pregnant. Women who are (or may be) pregnant should not sit very close (less than 1 metre) to you, on the same sofa, for example
Apart from this there is no need for you to treat them any differently from how you would have done before your implant. You may greet them as you normally would, and they may stay in the same room as you for as long as they wish
- Do not nurse children on your lap, or sit very close (less than 1 metre) to them for long periods of time. As above, you may cuddle or hold them for a few minutes each day, and they may stay in the same room as you for as long as you wish
- There is no need to place any restrictions on the time you spend, or activities you undertake, with other family members, friends and colleagues
- Iodine seeds look like silver grains of rice. Sometimes a seed may be passed in your urine, so just flush it away down the toilet. If you find a seed in your bed don't pick it up with your fingers - use a spoon or tweezers and flush it down the toilet as before.

The radiation from this seed is very small and is not a risk to you or other people. You don't need to report this to the oncologist at the time, but please tell your health care professional at your next clinic visit

- After the implant you may have sexual intercourse if you feel comfortable to do so. For the first two months there is a small risk that a seed may be passed into your semen so we advise that you use condoms. You may also notice that your semen is darker than usual or has specks of blood. Don't worry, as this will clear by itself

Apart from these minor precautions you should be able to return to your normal level of activity following this treatment. You will be given appointments to return to the hospital for occasional follow-up visits to check on your progress.

It is very important that you understand all of these instructions. However, if anything is unclear please call us.

When would I have a follow up appointment?

Four weeks after your procedure you will have appointments for a CT scan and an MRI scan. These scans are to confirm the position of the seeds in your prostate. You will not receive any results from these scans, they are for your oncologist's information. When you arrive at the Cancer Centre for these scans, book in at the reception desk, they will tell you where you need to wait for your scans.

Three months after your procedure you will have a telephone review appointment with a clinic review radiographer. A couple of weeks prior to this appointment you will need to have a PSA blood test at your GP surgery. Please have the results ready for your telephone review appointment.

Other help and support

The Lynda Jackson Macmillan Centre (LJMC) offers information and support to patients and their families and is located next to Chemotherapy Suite by Gate 3. The staff at the LJMC work as part of the overall team caring for you.

People who have cancer often say that during their illness they experience a range of emotions. Many find it to be a stressful, anxious and confusing time. Please feel free to drop in before, during and after any of your visits to Mount Vernon Cancer Centre to find out more about the LJMC services that you may find helpful.

The volunteers and healthcare professionals at the LJMC provide help, support and information in a relaxed setting to help patients cope with cancer and its treatment.

LJMC services include a range of complementary therapies, counselling, relaxation sessions and financial advice. You can drop in without an appointment or call the LJMC helpline on 020 3826 2555. More information is on the back of this leaflet.

If you normally pay for NHS prescriptions

People undergoing treatment for cancer do not have to pay NHS prescription charges if they have a valid medical exemption certificate. To get an exemption certificate, ask your GP for an application form.

Consent

It is a legal requirement to have a signed consent form from you before the start of your treatment.

If you have already been given one of these forms, please bring the completed form with you when you come for your first appointment.

If you have not been given a form, this will be discussed with you at your first appointment.

Identification

Please note that it is a legal requirement for the staff to check your name and details against your treatment sheet every time you attend.

Pregnancy/fathering a child

Female patients must not be pregnant or become pregnant and male patients must not father a child during a course of radiotherapy or for some months afterwards. **Please discuss this with your cancer specialist.**

If you think there is a chance, however small, of you or your partner being pregnant during treatment, it is extremely important that you discuss this with your oncologist, radiographer or nurse as soon as possible.

Female patients will be asked to confirm their pregnancy status prior to radiotherapy. This applies to all women between the ages of 12 - 55 years. This is a legal requirement.

This publication has been produced by the Information team at the Lynda Jackson Macmillan Centre. Contributors include professionals, patients and carers from Mount Vernon Cancer Centre who have expertise and experience in the topics covered by this publication. All our publications are reviewed and updated regularly. If you would like any details of the references used to write this information please contact the LJMC on 020 3826 2555.

Lynda Jackson
Macmillan Centre 



Lynda Jackson Macmillan Centre

... supporting people affected by cancer...

- ① Drop-in centre for support and information
- ① Telephone helpline
- ① Complementary therapies*
- ① Counselling*
- ① Benefits advice*
- ① Relaxation classes
- ① Look Good Feel Better™ beauty workshops
- ① The Way Ahead headwear workshops
- ① Self-help courses

The **Lynda Jackson Macmillan Centre** is situated between the Cancer Centre and Gate 3 (White Hill)

Please drop in or call to find out how we may be able to help you

Opening hours: **Monday–Friday: 9.30am–4.30pm**

Mount Vernon Cancer Centre, Northwood, Middlesex HA6 2RN

Telephone Helpline: **020 3826 2555**

Website: **www.ljmc.org**

* Service only available to NHS patients under the care of an oncologist based at Mount Vernon Cancer Centre



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PI51 [lilac] published 06/19
review date 06/22