



Oxford University Hospitals
NHS Foundation Trust

Radiotherapy Department

Radiotherapy to the prostate or prostate bed – preparation for planning and treatment

Information for patients



Please read this instruction leaflet before you come for your radiotherapy planning appointments. It will help you to prepare and understand the process.

Prostate patients – gold marker seeds (also called fiducial markers)

The prostate is a gland that moves by small amounts within your pelvis and can be in a slightly different position every day. It can be moved by daily changes to your bowel, for example, when you need to or have just had a bowel movement.

If your prostate moves just 6mm (a quarter of an inch) from where we originally measured it, the radiotherapy treatment beam we give you can miss it. This radiotherapy beam could then injure your rectum, bladder or other surrounding organs near your prostate.

We can track the movement of your prostate by inserting three small gold marker seeds (fiducial markers) into your prostate gland. These are tiny grains of metal, which are about 2-3mm (an eighth of an inch) in size.

The seeds are inserted by urologists (doctors who specialise in problems with the urinary system) and urology nurse practitioners. The markers help the clinical oncologists (doctors who specialise in cancer) to plan your treatment.

When you see your oncologist you must tell them if you are taking blood thinning tablets (anticoagulants). These may be stopped before you come for the procedure.

Each day, when you have your radiotherapy treatment, these markers will be identified using X-ray images. This allows the therapeutic radiographers treating you to direct the radiotherapy treatment beam accurately at your prostate gland. This reduces the risk of side effects through damage to surrounding organs.

The markers are implanted before you have the planning CT scan, which is carried out before your radiotherapy treatment.

These gold markers are permanent and will remain in your prostate for the rest of your life. They should cause no problems to your body and you will be unaware of them.

What happens on the day?

When you arrive for your appointment, please report to the reception desk at the Wytham Urology Outpatients department at the Churchill Hospital, Oxford. You will be asked to provide a sample of urine, which we will test to make sure you don't have a urine infection, as this could mean the procedure needs to be postponed.

You will be asked to take a seat in the waiting area and will be called for by the nurse. The nurse will talk with you about the procedure and any concerns you may have.

Because the marker insertion needle passes through the rectum and into the prostate, there is a small risk of infection. You will be given two antibiotic tablets to help reduce the chance of infection, and will leave with antibiotics to take for two days after the procedure. Alcohol is not allowed while you are taking the antibiotics, as it can affect how well they work.

After you have seen the nurse, you will be asked to change into a hospital gown. Please bring a dressing gown with you to wear over your hospital gown. You will then be asked to return to the waiting room for about 45 minutes to an hour. This is to allow the antibiotics to start working and for us to make sure you don't experience any side effects from them. The urologist or nurse practitioner will then call you in to have your procedure. It should only take around 5 minutes to place the markers.

You will be asked to remove your dressing gown, and will be given a blanket to cover your lower half. You will then be asked to lie on the couch on your left side. Before we start the procedure, we will clean your rectum with an iodine soaked sponge. The sponge is also covered in lubricating gel, to help insertion of the probe used to place the markers at the correct position in the prostate.

The urologist or nurse practitioner will perform the procedure, with assistance from another nurse. You will be kept informed of what is happening throughout the procedure.

After the probe has been inserted, we will inject a local anaesthetic called lignocaine around your prostate, through the wall of your back passage (rectum). This may sting, but will soon go numb. The markers will then be placed in your prostate. You will feel a brief pushing sensation as each marker is inserted. This procedure is less uncomfortable than a needle biopsy.

After the procedure you will be able to get dressed and can leave the department as soon as you feel ready to go home. The numbness will wear off in 1-2 hours.

You should be able to drive yourself to and from the hospital for this procedure, as you will not be given drugs to make you sleepy.

If you are in a same sex relationship, please speak to one of the nurses.

You will be contacted by a member of the radiotherapy scheduling team, to arrange an appointment for a radiotherapy planning CT scan and appointments for treatment. (See later in the leaflet for details.)

Side effects

Side effects from the insertion of the markers are uncommon, but they may include:

- **Infection**

There is a small risk (1 person in 500) of developing a serious infection in your blood (septicemia) in the week after the procedure, but this is rare. If you experience any of the following symptoms, please contact your GP, telephone 111 or go to your nearest Emergency department (ED) without delay.

- You feel unwell or shivery.
- You have a fever higher than 38°C (100.4°F).

- **Urine infection**

It is quite common to have some discomfort when passing

urine after the procedure, but this usually settles quickly. If you have a burning feeling when you pass urine and this does not improve after two days this could mean you have a urine infection. Please contact your GP to arrange a urine test.

- **Temporary local pain**

You may have some pain around the area where the procedure was carried out. You can take simple painkillers such as paracetamol or ibuprofen to help with this.

- **Blood in your urine, stools and semen – this is common but rarely serious**

Urine – you may see some blood in your urine after having the markers placed. This happens because the prostate is near to the bladder and urethra (the tube from your bladder to the end of your penis). The procedure can cause irritation of the urethra, which can lead to bleeding into your urine. This can last from two days to two weeks, but it usually settles within one week. If your urine is red, you should drink extra fluids (preferably water) to help flush the blood through.

Stools – you may also experience some blood in your stools after the procedure. Again this can last from two days to two weeks.

Semen – You may also see blood in your semen. This may last for several weeks, depending on how often you ejaculate. It is not dangerous and you can continue to have intercourse if this happens.

If these side effects do not go away within three weeks, please see your GP.

Useful contacts

If you have any questions about the procedure to place the gold fiducial markers, please contact us:

Uro-oncology Clinical Nurse Specialists	01865 572 374
Urology Outpatients department	01865 234 444
Urology Advanced Nurse Practitioner	01865 572 373

Prostate bed patients (if you have had your prostate removed)

The prostate bed is the region where your prostate was before surgery. It can be moved by daily changes to your bowel, for example, when you need to or have just had a bowel movement.

If your prostate bed moves from where we originally measured it, the radiotherapy treatment beam could miss it. This radiotherapy beam could then injure your rectum, bladder or other surrounding organs near your prostate bed.

Each day when you have your radiotherapy treatment, the prostate bed will be identified using X-ray images. This allows the therapeutic radiographers treating you to direct the radiotherapy treatment beam accurately at your prostate bed. This reduces the risk of side effects through damage to surrounding organs.

Radiotherapy treatment planning: all patients

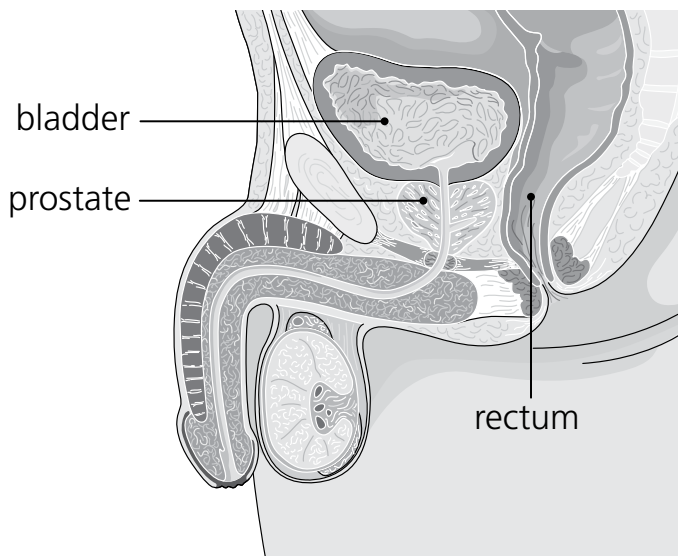
Shortly after you arrive at the radiotherapy department, the pre-treatment radiographers will discuss the preparation and planning procedure with you.

You will need to have bowel and bladder preparation as part of the treatment planning process. This will involve drinking water to fill your bladder and using an enema to empty your bowels. If you are worried that you will have problems with the preparation process, please discuss your concerns with your radiographer.

The aim of the preparation process is to move your rectum, bladder and bowel away from your prostate or prostate bed, helping to reduce the risk of side effects and damage to these organs. It also helps to make sure that on the treatment days your prostate or prostate bed is in the same position as on your radiotherapy planning scan.

As part of the planning process you will also need to have a CT (computerised tomography) scan.

Diagram to show the position of the prostate (or prostate bed)



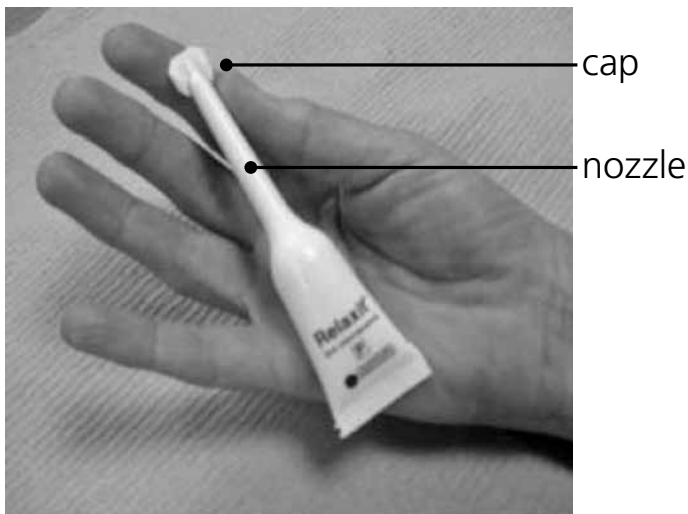
Bladder preparation

For a week before your appointment, increase your fluid intake so you are well hydrated.

To prepare your bladder you will be asked to drink two cups of water when you arrive in the department, before following the information below.

Bowel preparation – use of a micro enema

The micro enema tube



At your planning CT appointment, the radiographers will give you a tube of micro enema and lubricating gel. The micro enema comes in a small tube (5mls/one teaspoon in volume) with a nozzle (see picture). The medication is inserted into your rectum through the nozzle. You will be asked to do this for yourself.

This causes your bowel to empty with a bowel movement or passing of wind. **If you have already opened your bowels on the day of the scan, you will still need to use the micro enema, to make sure that your bowel is empty.**

The need to have a bowel movement is usually felt within 10-15 minutes, with most people needing to visit the toilet only once. However, before your scan, please empty your bowel as often as you feel the need to.

The toilets are close to the reception and planning areas.

How to use the micro enema

1. After you arrive in the radiotherapy department, go to the toilet with the tube of micro enema and remove the cap. To make it easier to insert the nozzle into your rectum, spread some lubricating gel over the nozzle.
2. Gently insert the nozzle fully into your rectum. Squeeze out all the contents and keep squeezing the tube as you remove the nozzle. (This action prevents the medication from being drawn back into the nozzle.)
3. It is OK to empty your bladder at this time if needed.
4. Return to the waiting room. Go to the toilet to empty your bowel and bladder whenever you feel you need to. When you empty your bladder you should do so using the normal amount of force and time. Do not strain to empty every last drop of fluid from your bladder.
5. If, after approximately 15 minutes, you have not had the urge to empty your bowel, please try to do so, even if you only empty your bladder.

Please note:

6. In the event that your rectum is already empty, the micro enema will have no effect. If this is the case, please do not be concerned and just let the radiographer know.
7. When you return to the waiting room, tell the receptionist that you have just emptied your bladder and bowels. Your scan will take place approximately 30 minutes later.

8. During the 30 minute wait please quickly drink a further 2-4 cups of water.
9. A radiographer will take you into a clinic room to conduct an ultrasound scan of your bladder. This ultrasound is used to see how full your bladder is prior to the CT planning scan.

If you feel a desperate urge to empty your bladder during the 30 minute wait, please tell the receptionist. They will let a member of the pre-treatment team know, so they can come and speak with you.

Preparation for treatment

After your planning scan, you will be given a prescription for the micro enemas. You can collect this from the pharmacy at the Churchill Hospital.

You will need to repeat the preparation process before each of your radiotherapy treatments. Bring one tube with you each day. If you forget to bring a tube with you, we can give you a replacement.

Although the prospect of using a micro-enema each day may sound unpleasant, research has shown that the use of an enema is beneficial and shouldn't cause you any harm.

When you arrive in the radiotherapy department, use your micro enema and, once it has been effective, check in at reception. Please also drink another 2-4 cups of water in quick succession and wait for 30 minutes for your treatment.

You will need to repeat this preparation process before each of your radiotherapy treatments.

Please speak to the radiographers looking after you if you need any further information.

A film describing this process and radiotherapy treatment is now available at: www.ouh.nhs.uk/cancer/videos/prostate-radiotherapy-treatment.aspx

How to contact us

Radiotherapy Scheduling
Radiotherapy Reception

01865 235 544
01865 235 465

If you have a specific requirement, need an interpreter, a document in Easy Read, another language, large print, Braille or audio version, please call **01865 221 473** or email **PALS@ouh.nhs.uk**

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