



**Royal Berkshire**  
NHS Foundation Trust

# **Radiotherapy for bladder cancer**

Information for patients on  
radiotherapy treatment

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## What happens next?

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In the clinic, you and your doctor have decided that you will have radiotherapy treatment for your cancer. This booklet explains what you can expect during and after your treatment and gives some general advice and information.

You will be given time to discuss any concerns with the radiographer (a person trained to give radiotherapy) at your planning appointment.

### Planning treatment

We will contact you by telephone to arrange an appointment for the CT scan which forms part of the planning of your radiotherapy treatment and which can take up to one hour. During this call, please mention if:

You have a pacemaker or other implanted cardiac device as radiotherapy can affect some types of cardiac device.

You have not had a blood test taken in the last 12 weeks as we may require you to take one prior to the planning scan date.

You have any problems with travel or appointment times and we will do our best to help you.

If the Radiotherapy Planning Department has not called you by a week after today's appointment, please contact us on the number below.

**Telephone: 0118 322 7872**

**Monday-Friday 8.30am-9.30am 3.30pm-4.30pm**

Your treatment will then be scheduled to start approximately 2-3 weeks after the planning CT.

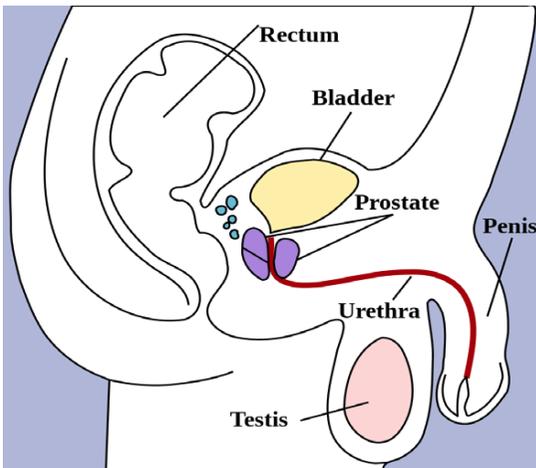
### What are the benefits of radiotherapy?

Your oncologist (cancer specialist) has referred you for a course of radiotherapy to the bladder. The benefits of radiotherapy are due to its effect against cancer in the area being treated. Radiotherapy uses high energy x-rays to kill cancer cells. Our bodies are made up of different

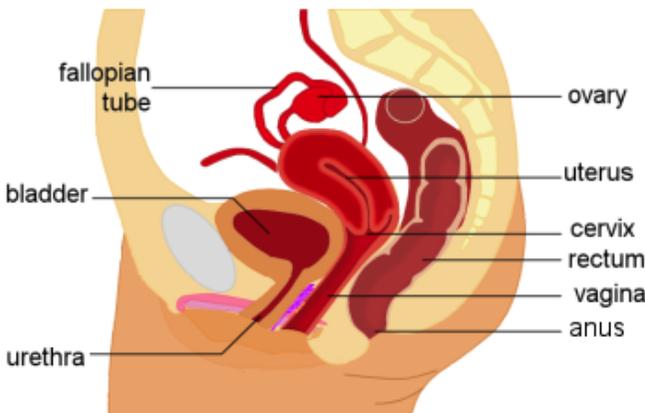
cells, and all cells are able to divide. If radiation hits a cell that is dividing, it will be damaged. Unlike normal cells, cancer cells are much less able to repair the damage so more of them will be destroyed.

**When recommending radiotherapy, your doctor will have taken into account the risks and benefits of the treatment. Although there are risks and side effects, it is felt that the advantages for you outweigh the disadvantages.**

These diagrams may be useful to help you understand the area to be treated with radiotherapy. Your doctor may draw on them to help explain your treatment.



*Male pelvis (side view)*



*Female pelvis (side view)*

## **Radiotherapy for bladder cancer**

Depending on the results of your surgery or biopsy, you will have been prescribed between 20 and 32 radiotherapy treatments. Your treatment will be given daily, and your oncologist will discuss with you the number of treatments you need.

Once you have been referred for radiotherapy, a member of the radiotherapy staff will telephone you with an appointment to attend either the Radiotherapy Department in the Berkshire Cancer Centre (BCC) or the Bracknell Clinic for a CT scan, which is the first stage in planning your treatment. If you have any problems with travel or appointment times, please mention these when you are contacted about your CT scan appointment – we will do our best to help you. You will also be given a parking permit if you or a friend or relative drives you to the hospital for your appointments. Please ask at the Berkshire Cancer Centre reception for this.

## **Preparation for planning and radiotherapy**

Where possible, we need to ensure that your bladder is in the same position at the planning CT scan and each subsequent radiotherapy treatment. You will be asked to empty your bladder upon arrival for your scan and again just before entering the CT scan room. It is also beneficial that you have a regular bowel movement before the planning CT scan and each day before your radiotherapy treatment. This will help reduce the build-up of gas inside your bowel, which can cause different amounts of rectal filling. We ask that you empty your bowels before attend for the planning CT scan appointment, if possible, although we caution against straining in order to achieve this.

## **Pregnancy**

Patients with childbearing capacity must not be pregnant or become pregnant at any time during a course of radiotherapy, as radiation can be harmful to the unborn child. It is important to let the radiographers know if you have missed a period or suspect that you may be pregnant, before you are exposed to any radiation. Patients with childbearing capacity will be asked to confirm their pregnancy status prior to planning the radiotherapy and again on the first day of radiotherapy treatment. This applies to all those with child bearing capacity between the ages of 12-55 years and is a legal requirement.

## **The CT scan – your first planning appointment**

Before the scan starts, one of the radiographers will explain what is going to happen and answer any of your questions.

During your CT scan, you will lie on the CT couch with your clothes removed from the waist down. You may feel a bit exposed, but we will cover you with tissue paper to maintain your dignity and it will only be your scanning team in the room. We will use knee rests and ankle stocks to support you in an exact but comfortable position. You will be in the same position every time you have your treatment.

## **Contrast injection ('dye')**

The doctor may have recommended an injection of contrast for the scan. Not everyone will have this but for some patients it is helpful.

You may have had an injection of contrast for scans before. It involves having a cannula, which is a bendy tube inserted into your arm or hand using a needle. The needle is only used to position the cannula and is removed once the cannula is in place. The cannula that is left in your vein is there to inject the contrast through. The radiographers will let you know when the injection is about to start.

The contrast injection may create a very warm feeling for about 20 seconds. This is often concentrated around the pelvis and groin area spreading down the thighs. It may also give you a metallic taste in your mouth. These are all common side effects and disappear quickly.

The cannula will be removed about 20 minutes after your CT scan is finished.

**If you have had an allergic reaction to contrast dye before, you must tell the radiographers before your scan.**

## **Marking out the treatment area**

The planning radiographers will draw some temporary pen marks on your skin around your pelvis to define the area we are going to treat. The radiographers will then place some markers on your skin, which will show up on the scan to help us in planning your treatment.

Measurements are taken to record the position of these marks, which will be used each time you come for your treatment. We will then scan your pelvis by moving the couch through the scanner. You will not feel anything during the scan.

The scan will take approximately two minutes and it is very important that you stay very still, breathing normally. The radiographers will be watching you throughout the whole procedure.

The final part of the planning procedure is to tattoo three points around your pelvis. This involves pricking the skin with a needle, which you may find a bit uncomfortable. This will produce very small, pinpoint-sized, permanent black marks, which, used with the knee rest and ankle stocks, will allow the radiographers to make sure exactly the same area gets the treatment each time.

After your CT scan, we will give you the date and time for your first treatment. This will be approximately 2-3 weeks after your CT scan. This allows us to use your CT scan images to produce a computerised plan of your treatment, ensuring an even dose of radiation to the bladder while minimizing the dose to surrounding tissues and organs.

You will also be shown where to come for your first treatment appointment.

You will be given a parking permit if you or a friend or relative drives you to the hospital for your appointments. While the permit entitles you to free parking, it does not guarantee a parking space. Parking availability can be very limited.

## **Your first radiotherapy treatment**

When you arrive for treatment, please report in to the staff at the radiotherapy reception desk, which is located in the main waiting room within the radiotherapy department. A member of the radiotherapy team will call you in for your treatment.

On your first treatment day, you will have a chat with one of the team of radiographers who will be treating you. They will:

- Check your details.
- Give you a list of appointment times.
- Check you have emptied your bladder.
- Discuss the treatment procedure.
- Outline the potential side effects.
- Tell you about review days with review radiographers and/or doctor.
- Answer any questions you may have.

## **What happens during the treatment?**

Each time you attend the department for treatment we need to ensure we are treating the correct person. As you enter one of the treatment areas, we will ask you to identify yourself by telling radiographers your name, date of birth and first line of your address. The staff will check this information against the treatment sheet that has your radiotherapy prescription.

You will need to have an empty bladder, for this and every subsequent treatment.

Each day the radiographers will put you in the same position as for your planning scan by lining up the tattoo marks on your pelvis.

Our treatment machines have a camera system attached. This uses infra-red lights to help us get you into the correct position and will also detect movement during the radiotherapy. We will need to remove your clothing from the waist down in order to use the camera system.

You may feel a bit exposed, but we will cover you with tissue paper to maintain your dignity, and it will only be your treatment team that is present with you. You will not feel anything from the infra-red light and it will not affect or hurt your eyes so you can keep them open if you wish. Please do let us know if you are light sensitive.

All the measurements for your treatment will be set and checked.

The radiographers leave the room to deliver your treatment. This is so they are not exposed to too many high-energy rays, as they will treat many patients during one day.

During the radiotherapy treatment, it is **very important** that you remain still, breathing normally, as you did in your CT scan.

Once they have left the treatment room, the radiographers will take a short scan to check your position and then start the treatment.

Although you are alone in the room, the radiographers are able to see you through closed-circuit monitors. If you need a radiographer during the treatment, raise your hand clearly and a radiographer will stop the machine and come into the room. You will not see or feel anything during the treatment but you will hear a buzzing during treatment.

During one of your treatment sessions, we will carry out another check using a dose measurement device. This is done to confirm the dose given is the same as your treatment plan.

The total time of your first treatment will be around 30 minutes.

Subsequent treatments should take between 10 and 15 minutes.

Once treatment has started, we aim to continue it without any breaks

or days off, apart from the weekends. However, we know that circumstances do sometimes arise where either you cannot come for treatment, or for technical reasons, e.g. a machine breakdown, when we might not be able to deliver to the original schedule. If any treatments are missed, the radiographers will discuss with you how we will make these up. This will not change the effectiveness of treatment and in the event of repeated delays, you will be given more information. If there are any short notice changes of appointments times, we ask for your understanding and patience while the staff work hard to rearrange your appointment.

The Berkshire Cancer Centre is a training centre, so you may meet radiography students involved with the delivery of your treatment. These students are under the close supervision of experienced staff. Radiotherapy does not make you radioactive and it is perfectly safe for you to be with other people, including children, after your treatment.

## **After treatment**

### **Possible side effects**

Side effects and how strongly you feel them will vary as everyone reacts differently to the treatment. It is important you keep the radiographers informed of any side effects that you experience.

Most side effects will start gradually from approximately two weeks into your treatment and may continue for 4-6 weeks after your treatment ends.

### **Urinary symptoms:**

- During your treatment, the sensitive lining of your bladder may become irritated by the treatment. This may cause a burning feeling when you pass urine. You may need to pass urine more frequently and with greater urgency. Symptoms start to improve 1-2 weeks after treatment has finished. You can help by ensuring you increase your fluid intake but try to avoid excess tea, coffee and alcohol.

- Some patients find that drinking cranberry juice and lemon barley helps to settle this irritation. If you are taking the drug Warfarin, avoid cranberry juice as it can have an effect on the drug.
- If the pain increases or you are unable to pass urine you must tell the radiographers as soon as possible. You can take painkillers, such as paracetamol, following the dosage instructions on the packaging.

### **Bowel symptoms:**

- The bowel and back passage can be exposed to some radiation because they are close to the area being treated. This may not cause problems, but in some patients, it can cause the lining of the bowel to become inflamed.
- Side effects will vary in different people. Some patients will start to have loose and watery stools (diarrhoea); they will pass more wind and have to open their bowels more frequently. This may mean that you have to rush to the toilet.
- Please tell the review radiographers or contact your nurse specialist if you have these changes. They may be able to offer advice to help your symptoms.
- If you feel bloated or have excessive wind, you may find it helpful to eat three small easily digested meals each day with two or three snacks in between, as this will help keep your bowels regular.
- Keep hydrated by drinking 4-5 pints (2-2.5 litres) of fluids per day. Limit caffeine – such as tea and coffee (or replace with decaffeinated versions.)
- Symptoms usually happen in the second or third week into treatment and will settle down a couple of weeks after the treatment has finished. Some patients find that the symptoms may continue and become permanent (see late side effects).

### **Skin reaction:**

You may experience a skin reaction on the treatment area, which may

become dry and itchy. To reduce the skin reaction, we advise that you:

- Use a moisturising cream on the area being treated. Apply gently, twice a day.
- After a bath/shower, towel dry the treatment area by patting not rubbing the skin. Ideally, where possible, allow skin to dry naturally.
- Avoid applying hot or cold heat sources to the treatment area.
- Avoid exposing the treatment area to the sun.
- Try to keep natural fibre clothing against your skin.
- Swimming is ok while on treatment; although we ask that you seek advice if you notice a skin reaction developing. You should stop swimming if the skin around your treatment area is broken.
- If you experience any itching in the treatment area, please let the radiographer know and they will advise you further.
- You may find that you lose some of the pubic hair in the area being treated. This usually grows back but hair loss may be permanent.

### **Tiredness:**

- Radiotherapy can make you feel tired, as can the anxiety and travelling for the treatment. The tiredness may start while you are having treatment and continue for a number of weeks after the treatment has finished. Many patients continue to work throughout their treatment but if tiredness becomes a problem, you may need to take time off work.
- If necessary, you should take time to rest, but there is no reason why you should not continue with your usual daily activities if you feel able. Many people report a benefit of maintaining gentle exercise each day throughout their course of radiotherapy.

### **Sexual side effects:**

- Radiotherapy to the pelvic area can cause soreness and discomfort internally and you may find that you lose interest in the physical aspect of your relationship for a while. This is normal, but if you are

concerned about it, do talk to your treatment team. It may feel embarrassing to mention these issues, but your team are used to dealing with these issues and maybe able to offer advice.

### **Possible late side effects:**

- Occasionally, the bladder may shrink after radiotherapy and you may have an increased urge to pass urine or need to pass urine more frequently. The blood vessels in the bladder lining can become more fragile which can sometimes cause blood in the urine. If you notice blood in the urine, it is important to let your doctor know so that it can be checked.
- Long term bowel damage is uncommon, but you may feel an urge to open your bowels more frequently than before and your stools (poo) may be looser. The blood vessels in the lining of the bowel can become more fragile and you may notice some blood in the stool. If you notice any blood, it is important to let your doctor know so that it can be checked.

### **Follow up appointment**

A few weeks after your radiotherapy has finished, you will have a follow up appointment at the hospital to see the oncologist. The doctor will discuss your treatment and any side effects that may have continued since the treatment finished. They will discuss future appointments and organise a cystoscopy a few months after radiotherapy has finished.

It is important that you know who to contact if you have any problems or questions once your radiotherapy has finished. The contact telephone number for your specialist nurse team is given below.

## Contact details

The Uro-Oncology specialist nurses can be contacted on:

0118 322 7905 for the Royal Berkshire Hospital nursing team and  
0300 6153809 for the Wexham Park Hospital nursing team.

The Review Radiographers can be contacted on: 0118 322 8869

## Further information

If you would like more information on this treatment and its potential side effects, then a source of information is:

1. Pelvic Radiotherapy in men: possible late side effects by Macmillan Cancer Support ([www.macmillan.org.uk](http://www.macmillan.org.uk))
2. Pelvic Radiotherapy in women: possible late side effects by Macmillan Cancer Support ([www.macmillan.org.uk](http://www.macmillan.org.uk))

These booklets can be obtained from the Macmillan Cancer Information Centre situated in the Berkshire Cancer Centre or on 0118 322 8700.

## Useful organisations

<p>Macmillan Cancer Support 0808 808 00 00 <a href="http://www.macmillan.org.uk">www.macmillan.org.uk</a></p>	<p>01844 351621 9.30am-4.30pm Monday to Friday <a href="http://fightbladdercancer.co.uk/">http://fightbladdercancer.co.uk/</a></p>
<p>Prostate Research Campaign UK Tel: 020 8877 5840 <a href="http://www.prostate-research.org.uk">www.prostate-research.org.uk</a></p>	<p>Patient Advice &amp; Liaison Service (RBFT PALS) 0118 322 8338 PALS@royalberkshire.nhs.uk</p>

# Notes

To find out more about our Trust visit [www.royalberkshire.nhs.uk](http://www.royalberkshire.nhs.uk)

**Please ask if you need this information in another language or format.**

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Review Radiographers

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