

Radiotherapy Treatment of Bladder Cancer

The aim of this leaflet is to provide information regarding radiotherapy treatment to the bladder, including the process involved and the possible side effects.

Radiotherapy

Radiotherapy is the use of high-energy radiation beams to destroy tumour cells and is an effective treatment for bladder cancer, as it can significantly reduce the likelihood of the cancer returning. Treatment is given daily, Monday to Friday, as an outpatient for approximately 6-7 weeks, and is unlikely to cause any side effects which would prevent the patient from driving.

Radiotherapy is delivered by male and female radiographers. We are a teaching hospital and have student radiographers in the department everyday who are supervised by trained staff. Please speak to a member of staff if you would prefer not be treated by students or have any concerns.

Bowel and Bladder Preparation

To ensure accurate and consistent treatment to the bladder it is important that your bladder and bowel/rectum are prepared in the same way prior to your Radiotherapy Planning CT appointment and each visit for treatment. We require the rectum to be as empty as possible – this is achieved using a daily micro-enema. The radiographers will supply you with the micro-enema when you attend for your Radiotherapy Planning CT appointment. In addition to having the rectum as empty as possible we require you to have an empty bladder.

What Happens Next

After you have seen the Oncologist in clinic and you have consented to have radiotherapy treatment, the Pre-Treatment Radiographers will contact you with an appointment to attend for a radiotherapy planning CT scan. The Radiographers will check that you have read and understood the bowel and bladder preparation instructions. Your planning appointment usually takes 30 – 45 minutes and involves a CT scan of your pelvis.

Planning Scan with Intravenous Contrast Injection

Your consultant may request us to perform the CT scan with an Intravenously Injected Contrast Agent – a needle is used to access a vein (typically on the back of the hand or in the arm) and insert a small plastic tube known as a cannula. A contrast agent is then injected to enhance the visibility of structures on the scans. If you are required to have a CT with IV Contrast, you will need to have an up to date blood test (Full Blood Count with Urea & Electrolytes) in order to assess your suitability for the injection.

The Planning CT Scan

The radiographers will position you on the CT scanner couch and will place some reference marks onto your skin surface. When you are in the correct position the radiographers will leave the room to switch on the CT scanner. It only takes a couple of minutes to perform the CT scan. After the CT scan the radiographers will permanently mark your skin using ink and a needle (tattoo marks). The permanent marks enable us to position you accurately each day for treatment. At the end of the planning CT appointment you will be given an appointment card detailing the date and time of your first treatment appointment. Over the next few days your Consultant will use the images from the CT scan to produce a treatment plan for your radiotherapy.

Radiotherapy Treatment

You will need to follow your bowel and bladder preparation instructions again prior to each treatment – the treatment radiographers will check that you have done this before treating you. Treatment usually takes

place on a daily basis, Monday to Friday and takes 10 – 15 minutes for each session (excluding bowel and bladder preparation time). Most of the time in the treatment room is used to position you correctly – once the radiographers are satisfied that your treatment has been accurately set they will leave the room to switch the machine on. It is important to keep as still as possible during the treatment process. When the machine is switched on you will not feel anything from the treatment, you may hear the machine buzz as it delivers a portion of the dose. The treatment dose is delivered from a number of positions – the machine delivers each portion then automatically moves around until all of the planned treatment has been delivered.

To ensure consistent treatment, X-rays are taken during the treatment to check/verify the treatment against the treatment plan.

Side Effects

Side effects may occur as the radiation beam will also affect healthy cells along with any tumour cells. The side effects are produced as the body recovers its healthy cells and disposes of destroyed tumour cells. Side effects are categorised as either **EARLY SIDE EFFECTS**, which occur during the latter half of the treatment period and may last for 6 – 10 weeks after completion, and **LATE SIDE EFFECTS** which may be noticed 1 – 5 years after completion of treatment.

You will be supported through treatment by a dedicated team of radiographers who will check on your wellbeing on a daily basis. The radiographers are part of a highly trained experienced team who can deal with any treatment related problems you may have.

In addition during your treatment course you will attend an 'On treatment Review Clinic', where you will be reviewed and monitored by the Review Radiographer

Early Side Effects

Tiredness

During the latter half of your treatment course you may feel more tired than usual. Ensuring that you have adequate rest, drink plenty of fluids (reducing your intake of caffeine) and eating a healthy balanced diet can help this.

Skin Reaction

Although skin reactions usually occur during the latter half of your treatment course we advise you to take care of your skin (in the area being treated) from the first day of treatment. This involves using tepid water, washing, showering and bathing as normal. Gently pat dry, do not rub and scrub. Apply a moisturiser in the treatment area. There is also an increased risk of sunburn in the treatment areas and an increased sensitivity for up to 2 years. It is therefore advisable to use a high factor sun cream (at least SPF 25) or a total sunblock in the treated area.

By following these steps any skin reaction can be minimised. A full leaflet regarding skin instructions is available.

Urinary Symptoms

Patients may notice an increased need to empty their bladder both during the day and at night. Along with this they may notice a reduction in the flow of urine and sometimes a burning sensation when passing urine. To minimise these effects it is important to drink plenty of fluids to reduce the concentration of the urine. If the symptoms worsen please discuss with the radiographers who can advise on methods to reduce the discomfort.

Bowel Symptoms

Some patients may experience abdominal cramps or diarrhoea due to the radiotherapy. Any changes in bowel habit or pain when opening the bowels should be discussed as soon as possible with the radiographers who will be able to offer advice.

Rectal Symptoms

A small part of the rectum is likely to be included within the treatment area and this may result in patients experiencing a small degree of inflammation called 'proctitis'. This will give the urge to open the bowel several times during the day even when the rectum is empty. Towards the end of the treatment course you may also notice your stools are mixed with mucus and occasionally blood. This is a perfectly normal treatment reaction, which may require pain relief or steroid medication. If you already have

haemorrhoids (piles) these may worsen towards the end of treatment. The radiographers will advise you on which products are suitable to use during radiotherapy.

Late Side Effects

These side effects may occur months or years after completing a course of radiotherapy. Less than 5-10% of patients will experience serious late damage.

Effects to be aware of are:

- Dryness and darkening of the skin in the treated area: this can be minimised by regularly using a moisturiser
- In a small number of cases there may be prolongation in the difficulty in passing urine, dribbling or inability to hold urine. There may also be narrowing of the urethra which may need to be treated surgically.
- Chronic proctitis may occur, bowel adhesions (particularly if pelvic surgery was performed before radiotherapy), persistent looseness of the bowel, abdominal pain, passing of blood with the stool, chronic discomfort when opening the bowels and blockage of the bowels.
- There is a very small risk of developing a fistula (small hole) between the rectum and bladder. The risk of this occurring as a result of radiotherapy alone is very low.

Pregnancy and Radiotherapy

All female patients of childbearing age (12-55 years old) will be asked prior to CT scanning and maybe before the first treatment of radiotherapy to confirm that they are not pregnant. If you are unsure or think that you may be pregnant then the procedure will not take place until pregnancy has been excluded by a negative pregnancy result. It may seem insensitive to ask, but law requires staff to exclude this possibility before proceeding with any procedure that uses radiation for treatment. These regulations are designed to protect the unborn child as radiation may seriously affect their growth and development.

You will be asked to sign a form to show that this question has been discussed.

It is very important that you are not and do not become pregnant whilst undergoing radiotherapy planning and treatment. If you think you may be pregnant at any time during your course of treatment please tell your clinical oncologist or radiographer immediately.

Follow up

Treatment for cancer is individualised, your doctor will discuss with you the best way to monitor your response to the treatment. In some cases the treatment is given to reduce the chance of the cancer recurring and there may not be a specific scan or test that will be helpful directly after treatment as there is no cancer left to measure. You can speak to your clinical nurse specialist or oncologist to discuss any concerns.

Frequently asked questions

Q. When should I use the enema?

A. You should always bring your micro enema with you to the hospital and use it on arrival. Please plan to arrive 30 minutes prior to your appointment time in order to use the enema as soon as you arrive, please do not check in at reception for treatment until you have used your enema.

Q. Should I have anything to eat/drink prior to my planning scan and/or treatment?

A. Yes. Please eat and drink normally prior to your planning scan and treatments. Fasting prior to a scan or treatment may lead to a buildup of bowel gas which should be avoided.

Q. I empty my bowels regularly in a morning do I still need to use the micro-enema?

A. Yes. Even if you empty your bowels each morning you still need to use the micro-enema as we are aiming to achieve a consistent treatment position.

Q. I've used the micro-enema as instructed but nothing happened. I'm worried that it hasn't worked?

A. Please do not worry, the micro-enema is only a mild laxative, and you will only need to empty your rectum if the rectum is full. If the rectum is empty when you use the nothing will happen, you will not need to go to the toilet. You may find that a little bowel gas is released (passing wind). You do not need to use a second enema

Contacts

This is a time when you may feel stressed, anxious or even depressed. The Hamar Help and Support Centre offers support for you and your family or carers. The staff at the centre provides information, help and specific counselling to suit your individual needs.

Please feel free to discuss any concerns with your Oncologist, Treatment Radiographer, Surgeon or Specialist Nurse.

Further information is available from; Patient Advise and Liaison Service (PALS)

PALS will act on your behalf when handling patient and family concerns; they can also help you get support from other local or national agencies. PALS, is a confidential service.

Royal Shrewsbury Hospital	Tel: 0800 783 0057 or 01743 261691
Princess Royal Hospital	01952 282888
Radiotherapy Treatment Enquiries	01743 261179
Urology Lead Radiographer	01743 261179
Hamar Help and Support Centre	01743 261035
Ward 23, Royal Shrewsbury Hospital	01743 261423
Macmillan Information & Support Service	01743 261000 ext 1957

Macmillan

Tel: 0808 808 0000

www.macmillan.org.uk

Urostomy Association - Shropshire and mid Wales branch

Tel: 01952 400971

www.uagbi.org

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