Cancer Division
Radiotherapy

Radiotherapy Treatment for Bladder Cancer

This information sheet is to tell you about radiotherapy to the bladder at Addenbrooke’s Hospital and how to prepare for your treatment. Your doctor and radiographer teams will be able to answer any further questions you have and to support you throughout.

Radiotherapy is treatment given using high energy X-Rays on machines called Linear Accelerators. Treatment is given either every day Monday to Friday for four weeks or once a week for up to six weeks. Your doctor will advise you which schedule you will receive.

Radiotherapy to the bladder is a treatment that most people tolerate well. It is given as an out-patient, and you will be well enough to drive. If you are working we will try to arrange appointment times that will be convenient to you. It will not cause sickness or vomiting. If you do have side effects (everyone is different), they are predominantly caused by the effects on the bladder and the nearby bowels.

Everyone at Addenbrooke’s receives radiation delivered using Intensity Modulated Radiotherapy (to reduce side effects) and using Image-Guided techniques, so we are as accurate as possible targeting the bladder every day of treatment.

The first stage of your treatment will be a radiotherapy planning scan. Your treatment will usually begin within two weeks of this scan.

Preparing for radiotherapy to the bladder

Why do you need to prepare for the planning scan and treatment?

The information from this scan will be used to calculate how to deliver radiotherapy specifically for you. Opening your bowels regularly, especially before the planning scan and each daily treatment, means that the shape of your rectum and the position of your bladder remains in a similar position. If your rectum is full of faeces and/or gas during treatment, the position of the bladder can change.

You will be prescribed tablet laxatives (Senna & Docusate) to start two days before your planning CT scan. You will be given separate information about this.

You will be asked to empty your bladder before you are scanned. If you have difficulty with urine flow and feel you cannot empty your bladder fully please discuss this with your doctor at your first visit or contact us before your scan.
How do you prepare for your scan and treatment?

- **Avoid foods or drinks that you know will produce gas/give you wind** for at least five days before you come for your planning appointment and throughout your radiotherapy treatment. This could include fizzy drinks, including beer; beans and pulses.

- **Aim to drink a minimum of two litres of fluids a day (excluding tea/coffee),** spread throughout the day, to ensure healthy hydration.

- Limiting caffeine intake to no more than four cups of tea/coffee a day can help reduce bladder irritation.

- Eat your meals as normal and do not skip meals. You do not have to starve before your scan or treatment.

- If you feel the urge to open your bowels, try to do so and not wait.

- Taking regular physical exercise will help keep your bowels regular, e.g. 30 minute walk each day.

- Continue to take your usual medication.

- Try to open your bowels on the morning of your planning scan appointment and, if possible, daily before each radiotherapy treatment session.

If you have any questions about these instructions, please contact Andrew Styling, Specialist Radiographer, on 01223 596330.

You will receive a letter advising you when the preparation for your treatment will begin. If you do not receive the letter, please contact the specialist radiographer as above.

**Planning scan appointment**

- On arrival in the department, please empty your bladder.

- Please tell the radiographers if you have a urinary catheter

- You will lie flat, on your back, on a firm couch with head and legs supported. This is also your treatment position.

- If your bowel is full of gas and/or faeces on scanning, you will be asked to visit the toilet to empty your bowel and you will then be re-scanned.

- After the scan is complete, the radiographers will seek your permission to mark your skin with three pinhead-sized permanent tattoos. These are to help with the accuracy of your treatment. The procedure is then complete. Your treatment appointments will be posted to you.
Radiotherapy treatment

You will need to follow the same bladder and bowel emptying procedure you established for your planning scan.

You will be positioned on the treatment couch. Your position may be adjusted further after we have checked the position of your bladder each day with a scan.

Scans taken during radiotherapy treatment are to ensure accuracy. **These scans cannot inform us of the response to treatment.**

You are monitored closely by your radiographer team during treatment delivery via CCTV. You will need to be on the treatment couch for 10-15 minutes each day.

Please do not miss any treatments unless it is unavoidable and always let your team know if you have any queries.

Short–term side effects

Side effects do vary between individuals. Most people notice some side effects during the second half of their course of treatment. These may continue after you have finished but will gradually improve after four to six weeks.

Bladder symptoms

Irritation of your bladder can lead to a temporary increase in the frequency of passing urine and a slowing of urinary flow, this is often worse at night. It can also cause burning or stinging when you pass urine. Drink plenty of liquid, at least two litres a day, but do not increase your tea, coffee or alcohol intake. We may wish to take a urine sample to rule out a urine infection, if you have moderate or severe bladder problems. Your radiographer or doctor will advise you if they feel it is necessary. Some patients may pass some blood in the urine, unless it is a heavy loss this should not be a cause for concern, but do tell your treatment radiographers.

Bowel symptoms

Inflammation of your bowel can cause increased flatulence (wind), loose bowel motions and increased frequency of opening your bowels. You may also pass a small amount of blood or mucus or experience some discomfort in your rectum. You may have an urge to open your bowels but without actually passing anything. We may wish to give you extra dietary advice, tablets or steroid suppositories to ease the side effects.

Tiredness

You may become more tired as the treatment progresses. Take regular, gentle, exercise and ensure that you have adequate rest.
Skin reactions

Your skin may become a little uncomfortable or red in the treatment area. Do not use any cream or ointment without checking with your Oncologist or radiographers first. This is however rare for bladder patients.

Late or permanent side effects

Late effects can be a continuation of the short-term side effects that you experienced, or can develop months, or less commonly, years after your treatment.

Some people (20-30%) will notice a minor change in their bladder habit following radiotherapy, this can be passing urine more frequently. About 5% of patients may have more severe side effects (eg passing blood), urinary incontinence is unlikely.

Some people (20-30%) will notice a minor change in their bowel habit following bladder radiotherapy but this is rarely troublesome. You may also pass mucous from your rectum. About 5% of patients will have more severe side effects (for example requiring tablets to help with diarrhoea or rectal bleeding requiring laser treatment). Faecal incontinence is rare.

Between 40% and 50% of men will experience problems achieving or maintaining an erection in the years following bladder radiotherapy. You will notice that the volume of fluid that you produce at ejaculation is reduced or even absent. Women may have vaginal dryness causing discomfort during intercourse. Both men and women might lose their fertility, but should seek advice before discontinuing birth control precautions.

There is a rare risk of late radiation-induced second cancer.

Consent

At the time of your consent for your treatment your oncologist may also ask for your permission to use image data obtained during your treatment preparation for research purposes. To speed up the preparation of radiotherapy treatment, we use computer software to recognise and mark out anatomical structures in your planning scans.

We are working with Microsoft to improve radiotherapy planning, by letting computers learn from the final plan that is prepared by your oncologist. The data that is transferred to Microsoft is completely anonymised. Microsoft will never redistribute or sell any of your image data, but reserves the right to sell software systems that have been trained on your image data.

How will I be followed up after the radiotherapy?

You will receive an appointment to see your oncologist, in your local hospital, about eight weeks after the radiotherapy has finished. If you have not received notification of that appointment six weeks after the end of your treatment please telephone your local hospital and ask to speak to your oncology consultant's secretary.
At this visit your side effects from radiotherapy will be assessed, and you will then be referred to see your Urologist to arrange for a cystoscopy (internal examination of bladder) three months after you have completed radiotherapy.

**Contacts/further information**

Andrew Styling, Specialist Radiographer 01223 596330 (has answer-phone)

**Radiotherapy reception 01223 216634**

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We are a smoke-free site: smoking will not be allowed anywhere on the hospital site. For advice and support in quitting, contact your GP or the free NHS stop smoking helpline on 0800 169 0 169.

**Other formats:**

If you would like this information in another language or audio, please contact Interpreting services on telephone: 01223 256998, or email: interpreting@addenbrookes.nhs.uk For Large Print information please contact the patient information team: patient.information@addenbrookes.nhs.uk.

**Document history**

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