

Stereotactic Ablative Radiotherapy (SABR) to the bones and lymph nodes

Information for patients



Leeds Cancer
Centre

This leaflet aims to help you and your family understand more about radiotherapy to bones or lymph nodes. The treatment technique used is Stereotactic Ablative Radiotherapy (SABR).

This leaflet will be given in addition to the information you will receive from your clinical oncologist (who is a specialist doctor in cancer treatment). The clinical oncologist works with a team of people throughout your treatment including therapeutic radiographers and nurses.

The leaflet describes radiotherapy planning and treatment. It also explains the side-effects which you may experience during and after treatment.

Each person's treatment will vary, so the information given is a general guide. The healthcare team looking after you will explain your treatment and the side-effects in detail. If you have any questions after reading this leaflet, please speak to the team looking after you or ring the numbers at the end of leaflet. Staff will make every effort to meet your individual needs or will direct you to the person who can help.

All your radiotherapy planning and treatment will take place in the Radiotherapy Department on Level -2, Bexley Wing, Leeds Cancer Centre (LS9 7TF).

Radiotherapy reception Tel: 0113 206 8940

Please do not bring any valuables into hospital with you as the Trust cannot accept liability for loss or theft.

What is Stereotactic Ablative Radiotherapy to the bones or lymph nodes?

Stereotactic radiotherapy is a technique which can deliver a high dose of radiotherapy to cancer in a bone or lymph node. Because a high dose of radiotherapy is given at each treatment visit, fewer treatments are needed in total. However, each treatment session will be longer than in standard radiotherapy treatment.

Radiotherapy is the use of high energy X-rays and other types of radiation to treat cancer. The radiotherapy causes damage to cancer cells in the treated area. Although normal cells are also affected, they can repair themselves and are able to recover. Radiotherapy is a local treatment. This means it only affects the part of the body that is treated.

When you are having your radiotherapy you do not feel anything and it does not make you radioactive. You may hear a buzzing noise when the machine is switched on.

It is perfectly safe for you to be with other people, including children and anyone who could be pregnant throughout your treatment.

You will have your radiotherapy on a treatment machine called a linear accelerator, as shown in the next photograph. You will see your radiographers at each treatment session, and they will be happy to answer any questions you may have.



How often is it given?

A course of SABR to one body area is delivered over three or five treatment visits. Treatment is given two to three times a week with at least one day between each appointment. Treatment is not delivered at the weekend. If you are having more than one body area treated you will have more treatment appointments and may have to attend every week day for up to two weeks.

Your radiographer will be able to explain the details of your individual radiotherapy appointments.

Your treatment will usually be given as an outpatient.

Visiting us before your treatment

If you would like to visit the radiotherapy department before starting treatment, please call **0113 206 7603**. This visit can be very useful as you can find out more information about radiotherapy.



'I was so pleased to see the machines before my treatment and the staff were so helpful and really put my mind at rest.'

Who will I meet?

Therapeutic radiographers

Radiotherapy is given by therapeutic radiographers of any gender, who are highly trained in the accurate planning and delivery of radiotherapy treatment. You will see your radiographers at each treatment session and they will be happy to answer any questions you may have.

Student radiographers

The radiotherapy department is a training centre for therapeutic radiographers. They are supervised at all times. If you do not wish students to be present during your treatment please speak to a member of staff. This will not affect your treatment or care.

Others involved in your care

You may meet other staff whilst you are coming for radiotherapy. Everyone you meet will introduce themselves, tell you their job title and explain the role they have in your care.

Pregnancy

It is very important that patients of child-bearing potential are not pregnant at the start of a course of radiotherapy and that they ***do not become pregnant*** during a course of radiotherapy because it can have an effect on the unborn child. Use an effective form of contraception, for example condoms, coil, depo injection or contraceptive pill.

For more information see the '***Contraception and pregnancy during cancer treatment***' leaflet. Please do not hesitate to ask your doctor or nurse if you have any questions or concerns about these issues.

Planning your treatment

A clinical oncologist or a member of their team will discuss your treatment with you at your outpatient visit. It is a good idea to bring a list of any questions you may have and an up-to-date list of all your medication. You will be asked to sign a form giving your consent to treatment before you can begin radiotherapy. You will then have up to three visits to the radiotherapy department before you start treatment. During these visits we will gather all the information we need to accurately plan and deliver your treatment.

What to bring with you:

- a list of all questions you may have;
- an up-to-date list of all the medications you are taking (including inhalers, sprays, vitamins or herbal products);
- any medication that you may need during your visit;
- something to eat and drink and something to occupy yourself with, as this first visit can be quite lengthy (up to two hours).

Treatment position

The position you lie in to receive radiotherapy treatment will depend on what part of your body is being treated. You will usually be asked to lie on your back with your arms across your chest, in a position that is comfortable for you.

The radiographers will help you with this. The position is made more comfortable by using a custom made 'bean bag' to support your body.



Some patients may be asked to lie with their arms above their heads, holding on to a bar.

Some patients find it difficult or uncomfortable to keep their arms above their head, especially if they have arthritis. If you think this might be a problem for you, please discuss this with your clinical oncologist. Painkillers taken approximately one hour before each treatment can help. Your clinical oncologist can prescribe these if needed. A very small number of patients may need to wear a radiotherapy mask. This is when the treatment area is close to the neck, upper ribs or shoulders. For more information, please ask for our leaflet 'Having a radiotherapy mask made'.

Your planning scan

In order to plan your treatment you will have a planning CT scan. This is done on a machine called a CT scanner (see next photo). It allows the images from the scan to be sent to the radiotherapy computer planning system. There will be several members of staff present at your scan such as therapeutic radiographers, and possibly a mould room technician and a dosimetrist (the person who will produce the computer plan for your treatment).

Planning scans are not diagnostic examinations and will not be reported on as such.



The scan will be taken with you lying in the same position as for your treatment, see also paragraph 'Treatment Position'. The radiographers will draw some marks on you, to be used as a reference for your treatment.

You will then be scanned, which will only take a few minutes and at the end of the scan the skin mark will be replaced by a small permanent mark (tattoo).

These permanent marks will be used each day for your treatment, they help us to reproduce your treatment with accuracy each time. It also means that you can wash without worrying about your marks coming off.

Permanent mark next to a 5 pence piece



Contrast dye

A special contrast agent, often called a dye, may be used for your scan to make specific organs, blood vessels and body tissues 'stand out'. This can make it easier for the doctor to plan your treatment.

The dye is given through a small needle into a vein in your arm. You should tell the radiographer if you have any allergies, but they will go over this with you before they use any dye. The radiographers will advise you about drinking plenty of fluid after your injection.

Contrast side-effects

You may notice a warm feeling throughout your body and have a metallic taste in your mouth. You may also feel as if you have passed urine. This will pass very quickly. There is a slight risk of an allergic reaction to the injection, such as skin rash, but very rarely it may lead to other complications. The staff in the radiotherapy department are highly trained to manage any complications and again the risk involved is very small. You will be able to drive and go to work after your scan.

Some patients may be asked to empty their bladder before the CT scan, and before each radiotherapy treatment.

A second scan, an MRI scan, is sometimes required to help plan your radiotherapy. You will be told if this applies to you when you are seen in clinic. The MRI scan may take place on the same day as the CT scan described above, or on a different day. We will try to arrange for the two scans to happen on the same day when it is possible to do so. The MRI scan can take up to one hour. For the MRI scan you will lie in the same 'bean bag' as you did for your CT scan.

These scans are not diagnostic scans and will not be reported on as such.

Having your treatment



When you arrive for your treatment you should go to the radiotherapy main reception desk at the entrance of the radiotherapy department. On the first occasion you will be given all your appointments and be escorted to the waiting area for your machine.

The radiographers will explain what will happen and answer any questions that you may have.

A team of radiographers work together in the treatment room and you will hear them giving each other instructions and information relating to your treatment. At each treatment session, the radiographers will position you by moving the treatment couch and machine to ensure the radiotherapy is delivered accurately to the cancer. The machine will not touch you. During treatment it is important that you stay as still as possible and breathe and swallow normally.



As well as delivering your radiotherapy the radiographers will always take a number of 'scans' before your treatment.

The purpose of these scans is to confirm that your treatment is being delivered accurately. Using these scans we may make small adjustments in the position of the couch and machine which you may notice.

Once you are in the correct position the radiographers will leave the room to switch on the machine. You will only be alone for a few moments at a time. The treatment machine makes a buzzing sound when switched on. You do not feel anything.

The radiographers will be watching you on a closed circuit TV (CCTV) monitor during treatment. The CCTV camera is not recording or saving any images. There is also an intercom system so the radiographers can talk to you.

If you would like to listen to music during your treatment, please let us know.

The treatment only takes a few minutes but you will be in the treatment room for approximately 30 minutes per session. The machine stops automatically after your prescribed dose of treatment has been given. The radiographers can stop the machine at any time if needed. The radiographers may need to come in and out part way through each treatment.

After the treatment is complete the radiographers will come back into the room and help you off the couch.

If you have any concerns or queries throughout the treatment course, please tell the radiographers.

The radiographers will monitor your side-effects throughout your treatment course and arrange for you to see a doctor in the Princess Royal Suite if needed.

On some days the radiotherapy department may be busy and there may be a delay before your treatment. We will keep you informed of any delays, please see the delay signs in the waiting areas. It may be a good idea to bring something to eat and drink with you, including any supplement drinks you have been asked to have and any medication you may need. There is a restaurant and café available on Level 0.

Your appointments for radiotherapy may not be at the same time each day and may be subject to change. We will try to give you times that suit you, but this may not always be possible.

Your treatments will generally be on the same machine, although there may be days when this machine is being serviced and your treatment will be in a different room.

It is possible that during your course of treatment an appointment may be cancelled due to machine maintenance work, bank holidays or in rare cases, machine breakdowns.

It is very important that you do not miss treatment days as it may make your treatment less effective. If you feel you are unable to attend for any reason please telephone us so that we can discuss this with you. If you have any queries about your appointment times please discuss these with the radiotherapy co-ordinators on your treatment unit.

For appointment queries please telephone the radiotherapy reception desk 0113 206 8940 for further advice.

As the date of your final treatment may be changed it is important that you speak to the radiotherapy team before booking a holiday immediately following your treatment.

Side-effects of treatment

Side-effects can be divided into short term (acute) effects, that happen during or soon after treatment, and long term effects occurring months or years later. Some side-effects are common, whilst others are rare. The area and amount of treatment given to you will affect which side-effects are most likely to happen to you. Your oncologist will discuss this with you. If you develop any radiotherapy side-effects you will be given advice and support by your healthcare team.

Early Reactions (during or up to 12 weeks after your treatment)

The side effects which you experience during or after treatment will depend on which part of your body is being treated. Your doctor will discuss which side effects are most likely to affect you before you start your radiotherapy.

Skin reaction

10 to 12 days after starting your treatment, the skin where you are having your treatment may redden or darken. It may become dry and itchy. Avoid hair removal where possible, including shaving, waxing, cream and lasers unless advised otherwise by your consultant, nurse or radiographer.

Before you start your treatment, a radiographer will explain what could happen to your skin and how to look after it. They will also give you a leaflet to take home. If you are concerned about your skin reaction please talk to your radiographers or contact the nursing staff in Princess Royal Suite on **0113 206 7587**.

Tiredness (fatigue)

Nearly all patients having radiotherapy will feel tired. Be prepared to take things easy during treatment and allow for extra rests. There is a Macmillan information leaflet available and if you would like a copy, or support with your fatigue please ask a member of staff. Fatigue usually improves in the weeks to months after treatment.

There are things you can do to help yourself:

- Gentle exercise can help reduce the symptoms of fatigue.
- Having enough to drink can prevent tiredness from dehydration.
- Small meals or snacks eaten more often than three times a day may be easier to face.
- Try to get a good night's sleep where possible, a daytime nap may help.
- Try to 'pace' yourself, listen to what your body is telling you, rest if you need to.
- Pick out the things that you enjoy, and try to ask for help with daily tasks if needed.
- Little and often is the rule of thumb.

Loss of appetite and nausea (feeling sick)

Your appetite may vary during your treatment. Try to eat well and drink about two litres of fluid every day during your treatment. There are leaflets available about eating well during treatment. Please ask a member of staff if you would like a copy. If you are experiencing significant nausea, please let us know as anti-sickness tablets can be prescribed.

Bowel symptoms

Radiotherapy may irritate your bowel. It is important to tell us if you have loose motions (poo) or diarrhoea. You may develop the urge to open your bowels without passing anything.

Urinary symptoms

Radiotherapy may irritate the bladder and cause a burning feeling when you pass urine (when you have a wee) and you may need to pass urine more frequently. If these symptoms develop we recommend drinking up to two litres of fluid a day until the symptoms settle. Fruit juices, alcohol and strong coffee or tea can worsen these symptoms.

Bone Pain

Some patients who are having SABR for a problem in the bone may experience pain in the bit of the bone being treated after this type of radiotherapy. It may be necessary to take painkillers such as Paracetamol to ease this pain before it settles down.

If you experience severe pain despite taking pain killers,

- If already here: please speak to your radiotherapy treatment team.
- From home: 8.00 a.m. to 6.00 p.m. Monday to Friday: please call 0113 206 7587.
- From home: out of hours, weekdays, weekends and bank holidays: please call 0113 243 3144 and ask to speak to the oncology nurse bleep holder.

Later Reactions (after three months)

Bone pain and bone fracture

SABR can weaken a bone, making it more likely to fracture (break). Bone fractures can be very painful. Some bone fractures will need to be repaired with an operation. Other bone fractures do not need an operation, but it may be necessary to take painkillers to control the pain.

Damage to the spinal cord, cauda equina or sacral plexus

SABR can damage the nerves in the spinal cord, the cauda equina ('tail' of the spinal cord) or the sacral plexus (nerves running through the pelvis). We take great care when planning and delivering your treatment to minimise this risk. The risk is small (affecting fewer than 10 people for every 1000 treated) but it would be very serious if it were to happen. Symptoms depend on which part of the spinal cord and which nerves are damaged. Symptoms can include limb weakness, difficulty walking, numbness, loss of bladder and bowel control and death.

Damage to the bowel

SABR can damage the bowel. The risk is small but it could be serious if it were to happen. Possible symptoms of damage to the bowel include a permanent change in bowel habit, bleeding from the bowel or diarrhoea. Other rare but potentially serious or life threatening complications include a stricture (permanent narrowing), perforation (hole) in the bowel or severe bleeding from the bowel. An operation may be needed to treat any serious damage to the bowel.

Damage to the bladder

SABR could cause damage to the bladder. The risk is small but could be serious if it were to happen. Possible symptoms include a permanent reduction in the amount of urine that the bladder can hold. This means that you have to pass water more often or have to rush to the toilet when you do need to pass water. Occasionally radiotherapy can cause bleeding from the bladder. This might result in a bladder doctor needing to look inside the bladder.

Re-irradiation

If stereotactic radiotherapy is to be given to an area of your body which has received radiotherapy before, this is called 're-irradiation'. Re-irradiation increases the risk of developing long term or severe side effects following treatment. Your oncologist will talk through these risks with you before you start treatment. Sometimes these risks only become apparent whilst your treatment is being planned. If this happens your oncologist may change the number of radiotherapy treatment sessions, or may change the dose of radiotherapy. Your oncologist may decide that it is not safe to go ahead with treatment if the risks cannot be reduced to an acceptable level.

Research at Leeds Cancer Centre

Leeds Cancer Centre is a major centre for cancer research. You may be asked if you would like to help with some of the clinical studies. You are under no obligation to take part in any trials, and your treatment will not be affected in any way if you do not wish to take part.

If you do take part in a clinical trial you may meet a research nurse or radiographer who will be helping to run the trial.

Further information and support

If you have any questions please ask your hospital team. We all have our own ways of coping with difficulties.

Some people have a close network of family and friends who provide emotional support. Others would rather seek help from people who are not involved with their illness.

The following are also available as sources of information and support that you may wish to use.

Clinical Nurse Specialists (CNS)

Your CNS is available to discuss any aspect of your treatment with you. You will be seen by a CNS before your treatment. This is to offer support and advice about the practicalities and effects of your treatment and answer any questions you may want to ask.

Your CNS will also assess and discuss any physical, psychological, social, occupational and spiritual needs that you may have. They can refer you to other services if needed, for instance, benefits advice.

You should be given a 'key worker' as a contact for support through your treatment; this is usually your CNS.

Macmillan Specialist Radiographer and Macmillan Radiotherapy Nurse Specialist

Sometimes people need more help if they are feeling depressed, very anxious or are having problems with their treatment. If this is the case you may benefit from seeing the Macmillan radiographer or nurse specialist.

Your oncologist, radiographer or nurse can refer you at any point before or during your treatment.

Local Support Services

Leeds Cancer Support

Leeds Cancer Support complements care provided by your clinical team. We offer access to information and a wide range of support, in a welcoming environment for you, your family and friends.

We can be found in the information lounges in Bexley Wing and also in the purpose built Sir Robert Ogden Macmillan Centre (behind the Thackray Medical Museum).

The Sir Robert Ogden Macmillan Centre

The Centre offers a variety of free health and wellbeing and supportive therapies for patients, their family members and carers. These include Hypnotherapy, mindfulness coaching, acupuncture (for hot flushes) and pilates.

Contact numbers for Leeds Cancer Support

Information Lounge Level -2 Radiotherapy Department

Open from 8.00am - 6.00pm Tel: (0113) 206 7603

Information Centre Level 1 Outpatients Department

Open from 9.00am - 4.00pm. Tel: (0113) 206 8816

Sir Robert Ogden Macmillan Centre

Open from 9.00am - 4.00pm. Tel: (0113) 206 6498

All the above services can be emailed on:

leedsth-tr.cancersupport@nhs.net

Maggie's Centre

If you or someone you love has cancer you may have lots of questions. Maggie's is a warm, welcoming place where you can meet people who are experiencing similar things to you.

You may also be able to find support groups specific to your needs and get advice and information from their professional staff.

You don't need an appointment and all support is free.

Open Monday to Friday 9.00 am - 5.00pm. Tel: (0113) 457 8364

Address: St James's Hospital (next to the multi storey car park), Alma Street, Leeds LS9 7BE

Email: leeds@maggiescentres.org

Website: maggiescentres.org

National Support Organisations

Macmillan Cancer Support:

Freephone: 0808 808 0000, 8am - 8pm seven days a week.

Website: www.macmillan.org.uk

A textphone service for deaf and hard of hearing people is available on: 18001 0808 808 0000.

Live Through This

A cancer support and advocacy charity for LGBTIQ+ community.

Email: contact@livethroughthis.co.uk

Website: <http://livethroughthis.co.uk>



St James's University Hospital

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|----------|---------------------|---|------------------|
| 1 | Gledhow Wing |  | Entrances |
| 2 | Lincoln Wing |  | Visitor parking |
| 3 | Bexley Wing |  | Disabled parking |
| 4 | Chancellors Wing |  | Staff parking |
| 5 | Robert Ogden Centre |  | Bus stops |

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