NHS
University Hospitals Sussex
NHS Foundation Trust

Having stereotactic ablative radiotherapy treatment to the lung

Sussex Cancer Centre

Patient information

What is SABR?

SABR stands for **S**tereotactic-**A**blative **B**ody **R**adiotherapy. It can also be referred to as SBRT, or **S**tereotactic **B**ody **R**adio**T**herapy.

Your Oncologist has advised that you would benefit from a course of SABR treatment to an area within your lung.

Radiotherapy uses high energy x-rays to treat cancer. It destroys the cancer cells in the treatment area and aims to stop cancer cells growing by either shrinking the tumour or completely destroying it.

SABR is an effective way of giving focused radiotherapy to try to control the tumour whilst sparing normal healthy tissue by:

- Small precise beams of radiation
- High dose of radiation at each treatment.

It is a non-invasive treatment option and can be carried out as an outpatient procedure.

How often will I have radiotherapy?

You will have either 3, 5 or 8 treatments on alternate days over a period of 2 to 3 weeks. The rest days between treatments allow for normal cells to recover and repair.

Specific appointment times cannot always be adhered to due to the skills mix of the team that is required to deliver the treatment. We will try our best to accommodate where possible.

Your treatment will be planned around any bank holidays or scheduled maintenance on the machines during that time period, this will not affect your treatment.

It is very important that you attend all of your radiotherapy appointments. If you are feeling unwell or think that you may be unable to attend for any other reason, please contact the radiotherapy department as soon as possible on **01273 664901,** as you may require an urgent medical review.

How do I prepare for radiotherapy?

Computer Tomography (CT) planning scan

Your first appointment will be a CT scan, which will take around 30-40mins. It may be necessary for you to have an injection of special dye known as contrast to make some areas show up better on the scan. The CT staff will let you know if you need this.

The aim is to find a position that is comfortable and reproducible for the treatment sessions. If the position is too uncomfortable, let staff know as adjustments can be made.

Standard position: Lying on your back, with arms positioned above your head holding onto handles. To help you stay still, a vacuum bag can be moulded around you. Cushions under your knees +/- a mattress for comfort. We will need to use a small breathing monitoring device in the form of a belt linked to the CT scanner.

Alternative positions: If we are treating your upper lung, we may make a custom mask moulded to keep your head and shoulder still. Lying on your back with arms down by your sides and a cushion under your knees +/- a mattress for comfort.

If we are treating your lower lung, you may require an additional scan to check how much the lesion moves when you breath. If it moves significantly, we may opt to scan with an additional piece of equipment called an abdominal compression belt. This puts some pressure on your tummy to minimise how much the lesion moves when you breath.

After the CT scan, the radiographers will make some permanent tattoo dots on your chest. These allow us to position you accurately during treatment. They are about the size of a pinpoint. They are permanent and are only made with your permission. If you are concerned by this, please let the CT radiographers know, and they can discuss other options with you.

If you are taking any medication, please bring a list with you. If you take regular pain relief, **please bring it with you and aim to take a dose before the planning scan appointment (approximately 30 mins prior)** as this will make it more comfortable when we position you for the scan. You may wish to do this prior to your radiotherapy appointments too.

Pre-treatment information

A radiographer will ring you a day or so prior to your first appointment to explain the procedure and answer any questions you may have prior to starting.

Having your radiotherapy treatment

Please report to the radiotherapy reception when you arrive. On your first day the radiographers will have a brief discussion and answer any final questions.

The machine that delivered the radiotherapy is called a Linear Accelerator (Linac).

You may need to remove some clothing and will then be asked to lie down on the treatment bed. The radiographer will position you carefully and adjust the height and position of the bed to align the tattoo dots on our skin.

Using pen marks, we will monitor your position throughout. These will wash off. It is important that you remain as still and relaxed as possible and to breathe normally.

When you are in the correct position the radiographers will leave the room. They will be watching on CCTV just outside the room whilst the treatment is delivered. They can always see you and can talk to you so if you need them, they can be back in the room very quickly. **Raise your hand if need immediate assistance.**

The radiographers will be in and out of the treatment room moving panels attached to the machine and adjusting the bed position, but we want you to remain still and in position. The radiographers take several scans to confirm treatment is being delivered accurately. They will inform you when treatment has beed completed and you are able to move freely again.

The treatment will take roughly between 30 and 45 minutes to complete.

Radiotherapy treatment is completely painless, you will not see or feel anything while it is being delivered, only a low buzzing can be heard. The machine will not touch you at any point.

The radiographers will monitor your side effects through the treatment. If you have any questions or queries, please discuss this with the team.

Possible side effects of SABR to the lung

Side effects can vary. Not everyone will experience all of the side effects but it is important you are aware of them.

If you are someone who smokes it is important to stop as this can increase the risk of side effects occurring. We can offer you help and support for smoking cessation. Please ask if this applies to you.

It is important to tell the radiographers how you are feeling when they ask, particularly if you feel symptoms worsen so we can get you the care that you need.

Side effects can be split into:

- Early/Short term (Can occur during radiotherapy or shortly after treatment) They are usually temporary and gradually resolve by themselves two to six months after finishing radiotherapy.
- Long term (months or years after treatment). Side effects that may require more long-term management strategies.

Early side effects of treatment

Tiredness (fatigue)

It is common to feel more tired than usual following radiotherapy. Your energy levels may take weeks or months to return to normal. To manage this, drink plenty of fluids and keep up nutritional intake. Try and stay active and take rest when necessary.

Skin reaction/soreness

It's uncommon. Your skin may look pink/red or darker, and becomes dry and itchy. When washing, avoid extremes of temperature and avoid vigorous rubbing with a towel. Instead, pat skin dry gently. Use your nomal washing products. If this causes a reaction, we may ask you to use something else (e.g. E45 or Aveeno). Wear loose-fitting, breathable clothing (e.g. cotton/ wool when possible. Avoid exposing the chest area to the sun or cold wind (If you are going to be in the sun, wear a high factor sun cream).

Shortness of breath, cough and/or raised temperature

After completing treatment, the lung tissue may become inflamed. This is called **radiation pneumonitis.** It can result in breathlessness, wheezing, cough or fever that may last up to 12 weeks following treatment. It can sometimes be mistaken for a chest infection. It is rare, but if you suspect your may have it, please let us / your CNS team know. Medication such as an oral steroid can be prescribed to help reduce inflammation and manage your symptoms.

Chest pain

If your tumour is close to the chest wall, you may experience some chest, rib and back pain post treatment. It's usually mild and often relieved with over the counter pain relief medication (e,g. Paracetamol). If the pain is more severe/ persists for a long period of time please seek advice from your radiotherapy team.

Late side effects of treatment

Lung scarring / lung collapse

There is a small chance that radiotherapy may cause scarring in the area that was treated. This is permanent and may cause a small portion of lung to collapse. The precise planning of your treatment keeps this to a minimum however those that experience this can feel short of breath and may require oxygen either temporarily or permanently.

Continued chest wall pain/rib fractures

If your tumour close to your ribs, there is a chance that the radiotherapy may weaken the ribs and cause pain and rib fracture. Usually this does not cause any symptoms and is only discovered when you have a scan after the treatment. A small number of patients with a rib fracture may require painkillers, sometimes for a long period of time to help manage the discomfort.

Upper arm nerve damage (brachial plexopathy)

If your tumour is located close to the top of the lungs, there is a very small risk of the radiotherapy damaging the nerves going into the arm. This may result in some weakness or numbness in part of the arm which could be permanent. Great care is taken in the planning process in order to avoid/ minimise the dose of radiation to these nerves.

Secondary malignancies

Any dose of ionising radiation the treatment does carry a small risk of causing another cancer in the area that has been treated, many years after treatment. The risk of this is small and if relevant the team will discuss this with you. For any side effects that may be specific to you, please refer to your radiotherapy consent form.

Who to contact if you have concerns

SABR Specialist Radiographer

It is the role of the SABR specialist to support you throughout treatment and to give practical advice and information. They will be your key worker and your main point of contact with the hospital.

They can be reached by calling through to reception numbers:

Sussex Cancer Centre Radiotherapy **01273 664901**

Eastbourne Radiotherapy Centre **01273 938900**

Monday to Friday 9:00am to 5:00pm

Review Radiographer

The review radiographer might see you or speak to you during or following treatment to discuss any side effects you may be experiencing and give you support and advice on how to manage these. They can be reached though radiotherapy reception.

Clinical Nurse Specialists (CNS)

Your CNS is there for you to discuss any aspect of your treatment and will usually see them during the consultation period. They can offer advice, help on the practicalities of your treatment and they can sign-post you to other support services that may benefit you.

Brighton
uhsussex.maclungcancercns@nhs.net
01273 696955 Ext. 63803

Worthing
uhsussex.worlungcns@nhs.net
01903 205111 Ext. 84339

Eastbourne and Hastings
esht.oncolung-edgh@nhs.net
esht.oncolung-cq@nhs.net
01323 417400 Ext. 4617

Chichester
uhsussex.lungcarenurses-srh@nhs.net
01243 831754

Consultant clinical oncologist

If you have questions relating to your medical care you can contact your consultant oncologist.

Dr. Anna Britten
Dr. Joanna Stokoe
Dr. Edward Chandy

They can be contacted via the CNS team numbers above.

Student radiographers / staff training

We are a teaching hospital. Sometimes we may have students or other members of staff observing or taking part in your treatment to learn the technique. Please tell the treatment staff if you would prefer not to have an observer with you.

How do I know if the treatment has worked?

The radiotherapy treatment continues to work for weeks or months after treatment ends so your oncologist won't be able to tell you straightaway how the cancer is responding. However, they can help you manage any side effects.

After treatment finishes, you will have regular check-ups. Your oncologist will do a physical examination and arrange tests or scans to check whether the cancer has responded to treatment. You may not know the full benefit of having radiation therapy for some months.

What happens after radiotherapy?

You will be reviewed approximately 2-6 weeks after completing your treatment. This may be a telephone call initially at 2 weeks with our review radiographer and then a face to face appointment with your clinical oncologist at 4-6 weeks post treatment. Your doctor will request an up to date scan to take place about 12 weeks after the end of your treatment. You will generally be seen at 3 monthly intervals for the first year after treatment and if all is well this will become less frequent over subsequent years (most likely annually).

Using your information / clinical trials

To keep improving our radiotherapy services, audits are regularly carried out in the department. This may involve using patient notes. Any data collected will have all personal and identifiable details removed to ensure patient confidentiality.

However, if this is unacceptable to you, and you would prefer that your notes are not seen, please let your consultant know and your wishes will be respected.

Clinical trials are undertaken within the department, which you may be eligible to take part in. If necessary and appropriate, your doctor will discuss this with you.

Useful contact numbers

Sussex Cancer Centre radiotherapy reception

01273 664901

Eastbourne Radiotherapy Unit

01273 938900

For emergencies out of hours, contact your GP or call NHS 111

Get more support from:

Macmillian Horizon Centre (opposite SCC entrance):

Services on offer:

- Cancer information
- Complementary therapies
- Professional counselling
- Benefits advice
- Self-help and support groups
- Sign-posting to other services.

01273 468770

horizoncentre@macmillan.org.uk

www.macmillan.org.uk/cancer-information-and-support/get-help/macmillan-services/macmillan-horizon-centre

Get more support from

Macmillan Cancer Support

0808 808 0000

www.macmillan.org.uk

Cancer Research UK

0808 8004040

www.cancerresearchuk.org

Roy Castle Lung Cancer Foundation

03333 237200

www.roycastle.org

Asthma Lung and UK

0300 2225800

www.asthmaandlung.org.uk

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This leaflet is intended for patients receiving care in Brighton & Hove or Haywards Heath

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