

Stereotactic ablative body radiotherapy to the lung

Information for patients



Introduction

This leaflet aims to provide information for patients and relatives about stereotactic ablative body radiotherapy (SABR) in lung cancer treatment.

It explains:

- General information on SABR
- Planning and delivery of treatment
- The side effects you may experience during and after treatment
- Who to contact for advice

Your Clinical Oncologist will discuss your treatment in detail with you answering any additional questions you may have.

What is SABR?

Radiation is a treatment for cancer which uses high energy radiation in the form of x-rays. It works by either damaging tumour cells to stop them growing or causes them to die. The aim of radiotherapy is to destroy the cancer cells whilst causing as little damage as possible to the surrounding normal cells.

SABR increases the chance of getting rid of the tumour whilst avoiding damage to the normal surrounding tissue by

- Delivering higher doses of radiation per treatment
- Delivering a small number of treatment sessions (usually 3-5)
- Treating smaller radiation fields (i.e. small tumours less than 5cm in size)

Conventional conformal fractionated radiotherapy is the alternative to SABR and usually consists of 20-33 treatments delivered daily (Monday to Friday) over 4 to 6 ½ weeks. Other alternative treatments include radiotherapy to help control symptoms (palliative radiotherapy) delivered over 1 to 12 treatments.

Planning your treatment

You will attend two appointments in the radiotherapy department before starting your treatment.

Appointment 1: Radiotherapy planning CT scan

You will be asked to lie flat on a couch, usually with your arms supported above your head. A CT scan will be taken of the chest and upper abdomen after your breathing has settled down into a regular pattern. You will be given permanent tattoos on the chest wall (3 small dots) to make sure we can put you in exactly the same position you were scanned in for your next appointments. The tattoos are about the size of a small pinhead or freckle. There will be one in the centre of your chest and one on each side of your chest in line with the one on the front.

Appointment 2: Pre-treatment run

This will take approximately 30 minutes and is usually on a Tuesday morning.

This is a final check on the treatment machine the day before your treatment starts. You will be positioned on the treatment couch as if you are having treatment and a CT scan will be taken to make sure the tumour is still suitable for SABR. A team of radiographers, physicists and doctors will be on hand to review the whole process. No treatment will be given to you at this appointment.

Delivering your treatment:

This will take approximately 45 minutes each time.

SABR is given over 3-5 treatments on alternate days (Mondays, Wednesdays and Fridays). Scans will be taken in the treatment room before the treatment so the radiographers can make sure the radiotherapy treatment is delivered accurately.

Early side effects of treatment

Early reactions to SABR tend to occur during or up to 3 months after completing your treatment. They are usually temporary and include:

Tiredness

This is common especially towards the end of treatment. Listen to your body and allow time to rest and sleep. You will gradually feel less tired.

Skin reactions

Your skin may become red, itchy or dry in the treated area. Rarely the skin may break down. You will be given skin care advice, please see the General Radiotherapy information leaflet. This will be given to you either by your doctor or a radiographer when you come for your radiotherapy planning CT scan.

Shortness of breath and cough

Sometimes, following radiotherapy to the chest, the lung may become inflamed. This is known as "radiation pneumonitis". It causes shortness of breath and a dry cough usually 6-12 weeks after completion of treatment.

This is uncommon and is less likely to happen after SABR than if you had conventional fractionated radiotherapy.

If pneumonitis is suspected your Clinical Oncologist may prescribe you oral steroid tablets to reduce the inflammation and help to relieve your symptoms.

Chest pain

If the tumour is close to the chest wall you may experience some chest pain following SABR. This can be managed with painkillers such as paracetamol.

Swallowing difficulties

SABR can occasionally cause your oesophagus (food pipe)

to become inflamed resulting in discomfort and difficulty swallowing. This is not common with SABR compared to conventionally fractionated radiotherapy. It can be managed with painkillers and a soft diet and will gradually get better.

Late side effects of treatment

Late reactions occur after 3 months following completion of SABR and may be permanent.

Lung scarring

The risk of permanent lung damage is very small. If it does occur you may need oxygen therapy in the long term.

Chest wall pain / rib fracture

There is a small chance that treatment of tumours close to the chest wall may weaken the ribs, causing pain and possibly rib fractures. This may require regular treatment with painkillers for a long period of time.

Upper arm nerve damage

For tumours close to the top of the lung, there is a very small chance of the radiotherapy damaging the nerves (brachial plexus) going to the arm. This may result in weakness, numbness or swelling of part of the arm. The risk of this is very small as great care is taken to avoid or minimise radiation doses to the nerves.

After treatment

After your treatment has finished you will return to the Outpatient clinic for regular follow-up with your Clinical Oncologist. Radiotherapy takes time to work and so it is at these appointments where your doctor will assess and discuss your progress and future follow-up.

How to contact us

If you have queries during treatment do not hesitate to speak to the therapy radiographer and doctor treating you.

They are available on **01865 235 472** during normal working hours.

Out of hours – contact the Oxford Triage Assessment Unit on **01865 572 192**.

After your treatment has finished you can contact the Lung Cancer Nurse Practitioner Team on **01865 226 119**.

If you need an interpreter or need a document in another language, large print, Braille or audio version, please call **01865 221473** or email **PALSJR@ouh.nhs.uk**

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