Stereotactic ablative body radiotherapy (SABR) to the lung

Information for patients
You have been given this leaflet as you have been recommended treatment with Stereotactic Ablative Body Radiotherapy (SABR) to your lung. Family members and friends may also find it helpful.

The leaflet 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 and can answer any additional questions you may have. The general Radiotherapy leaflet will explain what having the treatment involves and information about the department.

**What is SABR?**

Radiotherapy 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 causing 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 is a specialised form of radiotherapy that 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
- being given over fewer treatment sessions (either 3, 5 or 8)
- treating smaller radiation fields (i.e. for small tumours less than 5cm in size).

SABR differs from conventional forms of lung radiotherapy which can involve up to 33 treatment sessions over 6 and a half weeks.
Planning your treatment

You will need to come for a planning appointment in the Radiotherapy Department before starting your treatment. This is to decide the position you’ll need to be in for the radiotherapy treatment and then take a CT scan that we will use to plan your treatment.

Radiotherapy planning CT scan

You will be asked to lie flat on the CT couch, usually with your arms supported above your head. A CT scan will be taken of your chest and upper abdomen. You can breathe as you normally do during the scan and you will not need to hold your breath.

You will be given permanent tattoos around your chest (3 small dots). There will be one in the centre of your chest and one on each side of your chest. These are used to make sure we can put you in exactly the same position you were scanned in for your treatment appointments.

Delivering your treatment

This will take approximately 45 minutes for the first treatment and then 30 minutes for the remaining treatments.

SABR is given at 3, 5 or 8 treatments on alternate days (for example 5 treatments would be given on days: Monday, Wednesday, Friday, then the next Tuesday and Thursday).

Images will be taken in the treatment room before the treatment to make sure the radiotherapy is delivered accurately.
Early side effects of treatment

Radiotherapy treatment itself is painless. Early reactions to SABR tend to occur during treatment 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. You will be given skin care advice by the team caring for you.

**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 beginning 6-12 weeks after completion of treatment.

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

If pneumonitis is suspected, your clinical oncologist may prescribe you high-dose oral steroid tablets to reduce the inflammation and help to relieve your symptoms. Rarely, you may need inpatient care in hospital for this.

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

**Swallowing difficulties**
SABR can rarely cause your oesophagus (food pipe) to become inflamed resulting in discomfort and difficulty swallowing. This is not common with SABR compared to conventional radiotherapy. It can be managed with painkillers and choosing soft and bite-sized foods (soft, tender and moist) and will gradually get better.
Possible long-term side effects

Long term side effects can occur many months to years after radiotherapy has finished. These late side effects are hard to predict and unfortunately, if they do occur, can be permanent. We plan the treatment to avoid the areas surrounding the tumour as much as possible, to reduce these side effects.

Chest wall pain or rib fracture
There is a 10% chance (10 in 100 people) that treatment of tumours close to the chest wall may weaken the ribs, causing pain and possibly rib fractures. This risk is increased in patients with osteopenia and osteoporosis. This may require regular treatment with painkillers for a long period of time.

Lung scarring
The risk of permanent lung damage is very small. If it does occur, you may need high-dose steroids and oxygen therapy in the long term.

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 follow-up with your oncologist. Radiotherapy takes time to work and so it is at this appointment that your doctor will assess and discuss your progress. They will also talk with you about any continuing side effects and will plan future appointments.

It is common to feel tired after cancer treatment. Try to eat healthy balanced meals, drink plenty of fluids, rest as needed but aim to be physically active every day.
How to contact us

QUERIES DURING YOUR TREATMENT COURSE
If you have any queries during your radiotherapy, please do not hesitate to ask your therapeutic radiographer treating you.

You can also contact us on the two numbers below:

Radiotherapy specialist nurses (preferred)
Tel: 01865 235 465
(8am – 6.30pm, Monday to Friday)

Emergency assessment helpline
Tel: 01865 572 192
(Open 24 hours a day, 7 days a week)

QUERIES AFTER YOUR TREATMENT COURSE
Please contact your lung cancer nurse practitioner team from your local hospital:

Oxford Lung Cancer Nursing and Practitioner Teams
Tel: 01865 226 119
(9am - 4.30pm, Monday to Friday. Messages left after 3pm will be returned the next working day.)

Great Western Hospital, Swindon, Lung Cancer Nursing team
Tel: 01793 604 456 or 01793 604 351
(8.30am – 4.30pm, Monday to Friday. Answering machine available.)

Stoke Mandeville Hospital Lung Cancer Nurse Specialists
Tel: 01296 315 649
(9am - 4pm, Monday to Friday. Messages left after 4pm will be returned the next working day.)

Milton Keynes Lung Cancer Advanced Nurse Practitioners
Tel: 01908 997 334
(8.30am – 4.30pm, Monday to Friday. Answering machine available.)
Useful websites

The contact details of helpful organisations can be found in the general Radiotherapy leaflet. The following organisation may also have useful information:

**The Roy Castle Lung Cancer Foundation – Research – Prevention – Support**
Website: www.roycastle.org
Helpline: 0333 323 7200

Dietary terminology is compliant with the International Dysphagia Diet Standardisation Initiative 2016.
If you need an interpreter or would like this information leaflet in another format, such as Easy Read, large print, Braille, audio, electronically or another language, please speak to the department where you are being seen. You will find their contact details on your appointment letter.