Stereotactic ablative body radiotherapy for lung cancer

Information for patients

This sheet answers common questions about stereotactic ablative body radiotherapy (SABR) for lung cancer. If you would like further information, or have any particular worries, please do not hesitate to ask your nurse or doctor.

In all cases, a doctor will explain the SABR treatment to you and answer any questions you may have.

In most cases it will be possible for a friend or relative to accompany you for all or part of the procedure. Please ask your nurse or doctor.

What is stereotactic ablative body radiotherapy (SABR)?
SABR is a very effective treatment technique for early lung cancer, giving a high dose of radiotherapy to the tumour. It is a very precise treatment which uses advanced imaging techniques to guide the radiotherapy. It uses higher doses of radiotherapy per treatment compared to standard radiotherapy. This means that the treatment can be completed in fewer visits to hospital.

How is SABR done?
SABR for lung cancer is given in 3, 5 or 8 sessions, depending on the location of your cancer. Your oncologist will tell you how many treatments you will be having. SABR is given on weekdays with at least 40 hours between sessions.

You may be in the treatment room for 30 minutes to an hour, but will only have treatment for a few minutes of that time. At each treatment session, the radiographers will position you, moving the treatment couch and machine to direct the treatment accurately. Once final checks are completed, the radiographers will leave the room. The radiographers will be observing and if necessary, will be able to talk to you from the next room where they will be able to hear you at all times.

During treatment you will need to stay as still as possible, but please breathe normally. Before and during the treatment, the radiographers will take scans to
check the accuracy of your treatment. The treatment machine will move around you, but will not touch you.

**Before your SABR treatment**
SABR is very accurately planned, so you will have at least two visits to the radiotherapy department before you start your treatment. You will be asked to lie on your back on a couch, with a support or mould to help you maintain the correct position. You will then have two CT planning scans and we will monitor your breathing pattern.

At the end of your scan, the radiographers will make a few tiny permanent marks on your chest, which will be used to aid with accuracy for each treatment. The CT scanning process will take one hour. You will also have a rehearsal on the treatment machine before your course of radiotherapy begins.

**After your SABR treatment**
Once your radiotherapy treatment has finished, you will be given a follow-up appointment to be seen in the oncology clinic in six weeks’ time. Follow-up CT scans usually start at 12 weeks after treatment. Please feel free to contact your lung cancer nurse specialist if you have any concerns during this period.

**Risks and side-effects**
Most patients tolerate SABR treatment very well. Side effects may develop during radiotherapy, last for a few weeks after treatment has finished, and then slowly settle down. Tell the radiotherapy review specialist if you experience any side effects. They will ensure you receive support and any medication required.

**Early side effects**

- **Skin changes**
  There may be temporary reddening of the skin in the area being treated. The radiotherapy review specialist will advise you on skin care during treatment.

- **Fatigue**
  Fatigue is a common side effect of radiotherapy, particularly towards the end of treatment. Tiredness may continue for several weeks after radiotherapy.

- **Cough**
  You may notice an increase in a dry or productive cough. This is due to the radiotherapy causing inflammation, but this reaction should settle down when your treatment is over. You may also notice blood in sputum.
• **Breathlessness**
  Radiotherapy may cause inflammation in the lung. Due to this inflammation, you may develop increased breathlessness and cough after treatment has finished. This should get better on its own within a few weeks. Some patients may require a short course of steroid tablets to manage this side-effect.

• **Chest pain**
  You may develop discomfort in the area being treated. This is usually mild and relieved with simple pain killers.

• **Hair loss**
  There may be a temporary loss of chest hair in the area treated.

**Potential late side effects**

• **Lung scarring**
  Lung SABR treatment will cause scarring of the lung tissue in the area where the cancer was treated. This scarring is permanent and could cause a small portion of the lung to collapse. The precise planning of your treatment minimizes lung scarring. However, in some patients, this scarring could cause shortness of breath.

• **Rib fractures**
  For tumours close to the ribs, there is a chance that the radiotherapy may weaken the ribs and cause pain or rib fracture.

• **Brachial nerve damage**
  For tumours close to the top of the lungs, there is a very small risk of the radiotherapy treatment damaging the nerves going to the arm. This could cause weakness or numbness in part of the arm. Great care is taken when planning your treatment to avoid or minimise the dose of radiation to these nerves.

• **Second malignancy**
  Very rarely, people who have received treatment for one cancer may develop another type of cancer around the treated area some years later.

**Alternatives to SABR treatment**

Alternative treatments may include surgery or radiofrequency ablation. These treatments may not be suitable for all patients. Your respiratory doctor or oncologist will discuss this with you.
Do you have any further questions?
Always let us know of anything worrying you. We are here to help. Please contact your lung cancer specialist nurse:

- Barnet Hospital – 020 8216 4488
- Royal Free Hospital – 020 7472 6483

Our contact numbers

- Radiotherapy review specialist: 020 7830 2919
- Radiotherapy department reception: 020 7830 2919
- Radiotherapy and oncology counsellors: 020 7472 6739

Other useful contacts and websites

Macmillan Cancer Support
- Macmillan cancer information and support centre at Barnet Hospital: 020 8216 4142
- Macmillan cancer information and support centre at the Royal Free Hospital: 020 7794 0500 ext 31337
- Macmillan’s support line: 080 8808 0000
- Website: www.macmillan.org.uk

For more information about cancer services at the Royal Free London, please visit our website at: www.royalfree.nhs.uk/services/services-a-z/cancer-services

If you have any feedback on this leaflet or for a list of references for it, please email: rf.communications@nhs.net

This leaflet is also available in large print. If you need this leaflet in another format – for example Braille, a language other than English or audio – please ask a member of staff.

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