



Royal Free London  
NHS Foundation Trust

# Stereotactic Ablative Body Radiotherapy (SABR) for lung cancer

Information for patients

This leaflet provides information regarding the use of Stereotactic Ablative Body Radiotherapy (SABR) in treating lung cancer. It includes details of the procedure and side effects that you may experience.

Although you may have heard about radiotherapy from friends, relatives and/or other patients, it is important to remember that their experience may not be the same as yours. In all cases, a doctor will explain your radiotherapy treatment to you and answer any questions you may have.

We are here to help, so if you would like further information or have any concerns, please do not hesitate to ask a Radiographer or a member of the Radiotherapy Review Specialist team.

In most cases, a friend, relative or carer may accompany you to your appointments. Please ask your doctor or a member of the radiotherapy team if this is possible.

## **What is SABR?**

Radiotherapy is the use of high-energy radiation to kill or damage cancer cells in the area being treated. SABR is a very effective treatment technique for early lung cancer.

It gives a high dose of radiotherapy to the lung tumour, while minimizing radiation to surrounding normal areas. It is a very precise treatment which uses advanced imaging techniques to guide the radiotherapy.

SABR uses higher doses of radiotherapy per treatment compared to standard radiotherapy. This means that the treatment can be completed in fewer visits to hospital.

Some normal cells in the area can also be damaged by radiotherapy. This can cause side effects. As the normal cells recover, the side-effects usually get better.

## **How is SABR given for lung cancer?**

SABR for lung cancer is given as a course of three, five or eight sessions depending on the location of your cancer. Your oncologist will tell you how many treatments you will be having. Treatment will be given two to three times per week. You will need to attend the radiotherapy department as an out-patient.

## **Your radiotherapy planning appointment**

Prior to your radiotherapy treatment starting, you will need to attend the radiotherapy department for a CT planning scan.

Depending on the area to be treated they may arrange for you to have a specially made mask to help keep your neck still during your treatment. They will explain this to you if it is needed.

Your planning CT scan may have two parts. One will take a little longer and will involve us recording your breathing using a box placed on your chest at the same time as taking the scan.

This allows us to build a moving picture of your chest to see how things move as you breathe so that we can take this into consideration when we plan your treatment. The other part will be quicker and will not involve monitoring your breathing.

## **Your radiotherapy treatment appointments**

The actual radiotherapy treatment is like having an x-ray/scan. Each session takes approximately thirty minutes, most of which is spent ensuring you are in the correct position. The actual delivery of the radiation lasts only a few minutes. The treatment may take

longer if additional scans are required to ensure accuracy of treatment.

## **Radiation induced side effects**

### **Short term side effects**

Short term side effects typically reach their peak about two to three weeks after you finish your treatment and take a further two to three weeks to reduce. However this will not be the case for all patients. Possible short term side effects from SABR for lung cancer are listed below.

- Your skin may become slightly discoloured over the treated area. Continue using moisturising cream and avoid rubbing the area. Cream is available from the radiotherapy review specialist if you need it. Wearing loose, natural fibre clothing also helps.
- Radiotherapy may make you tired. Gentle exercise can help with your recovery.
- You may notice a transient cough during treatment. Radiotherapy may also cause inflammation in the lung. Due to this, a small number of patients may develop increased breathlessness and cough after treatment has finished. Some patients may require a short course of steroid tablets to manage this side-effect.
- You may experience chest wall tenderness and/or rib pain depending on the location of your cancer. This can be managed with simple pain killers.

You may experience some or all these side effects. Please always let the radiotherapy team know of anything worrying you, as we want to help you recover as soon as possible.

## **Long term side effects**

Some side effects are long term. These usually occur more than three months after finishing your course of treatment but sometimes can start much later.

- 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 minimises lung scarring. However, in some patients, this scarring could cause shortness of breath.
- For tumours close to the ribs, there is a chance that the radiotherapy may cause pain or make it more likely that you break a rib in the future.
- 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 (brachial plexus). 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.
- There is a small risk of coughing up blood if the treated tumour is close to airways.
- Radiation could rarely increase the risk of a different cancer in the treatment area.

## **After your treatment**

Follow up from radiotherapy can vary depending on the treatment you have received. You should expect an out-patient appointment usually four to six weeks after completing your treatment. This may be a telephone/video appointment. Out-patient appointments will then continue on a three to six monthly basis.

## **Support available at The Royal Free Hospital**

We have several support services available for you to access. If you would like to know more about these, please read our leaflet titled: 'A Patient's Guide to Radiotherapy' or ask a member of the radiotherapy team.

## **Useful Contact Numbers**

- Radiotherapy Department Reception: 020 7830 2919, Monday to Friday 8:45am to 5pm.
- Radiotherapy Review Specialist: 020 7830 2919, Monday to Friday 8:45am to 5pm.
- Macmillan Cancer Support and Information Specialist: 0207 794 0500 extension 31337, Tuesdays to Fridays 10am to 4pm.
- Maggie's Centre: 020 3981 4840, Monday to Friday, 9am-5pm
- Radiotherapy and Oncology Counsellors: 020 7472 6739, Monday to Friday 9am to 5pm.

## **More information**

For more information about the Radiotherapy service at the Royal Free London, please visit our website:

[www.royalfree.nhs.uk/services/services-a-z/cancer-services/radiotherapy-services/](http://www.royalfree.nhs.uk/services/services-a-z/cancer-services/radiotherapy-services/)

## Your feedback

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

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