



Information for
patients and
carers

Stereotactic Radiotherapy to the lung

Introduction

You have been offered a course of stereotactic radiotherapy (SABR) for the treatment of lung cancer. This leaflet will explain what this means and how we will plan your treatment.

What is SABR and what are the benefits of this treatment?

SABR is a very precise treatment for early stage lung tumours where an operation isn't recommended. It delivers high doses of radiotherapy from outside of the body to the lung, whilst reducing side effects to normal tissues as much as possible.

The benefits of this treatment are-

- Increased chance of tumour control compared to a curative course of standard radiotherapy alone
- Higher dose radiation delivered in each treatment, resulting in fewer treatment appointments (3, 5 or 8 treatment appointments compared with 2- to 33)

Are there any alternatives to this treatment?

The oncologist may have advised you about other possible treatments before referring you for radiotherapy. They will be happy to discuss any concerns you may have. An alternative to lung SABR is standard radiotherapy with 20 to 33 treatments over four to six and a half weeks.

If you choose not to have radiotherapy, the cancer may continue to grow. Symptoms may develop and worsen.

Planning your treatment

You will have two planning appointments in the radiotherapy department before starting treatment.

First planning appointment

On your first visit you will have a radiotherapy planning CT scan. During this appointment we will ask you to lie on the couch with either one or both arms above your head in a position that is as comfortable as possible. The radiographers will help you with this. We may make a cushion to support your back and arms (called a Vac Bag). If you think you may have difficulties lying in this position please inform the staff.

Once you are in a suitable position, a planning CT scan will be taken to accurately plan your treatment. You may be given an intravenous injection of contrast (iodine based dye) during the scan. This involves having a cannula (small plastic tube) inserted into your arm to inject the contrast. The dye shows up the organs more clearly on the scan. Please inform the staff if you have any allergies to iodine, if you are diabetic or if you have a hyperactive thyroid. The most common side effects of the contrast are a warm or hot “flushed” sensation during the actual injection; and a metallic taste in your mouth. These side effects usually only last a minute or so.

Second Planning Appointment

Your second planning appointment will be on the treatment machine (linear accelerator or linac) - this is referred to as “SABR Verification” on your appointment list. You will be asked to lie in the same position as you were at the time of your planning CT scan. This appointment is to carry out the final checks to ensure that you are as comfortable as

possible in the treatment position; and to check the radiotherapy plan on the treatment machine.

Each planning appointment may take up to an hour. Please bring any regular medication with you if you think you may need it whilst you are in the radiotherapy department. Please also bring any additional medication with you that your consultant may have requested you to take eg painkillers, inhalers etc.

Having Your Treatment

SABR is given over 3, 5 or 8 treatments, on alternate days Monday to Friday, usually on an outpatient basis.

For each treatment, you will be asked to lie in the same position as the planning appointments and to keep as still as possible. Scans are taken to check you are in the correct position for treatment. These scans enable us to adjust the position of the couch you lie on to ensure treatment accuracy. The treatment machine will move around you whilst delivering the radiotherapy. During treatment it is important for you to keep as still as possible, but to breathe normally.

The staff will be monitoring you at all times using a closed circuit TV monitor (CCTV). The treatment appointment will take approximately 45 minutes.

Side Effects of this Treatment

As your treatment progresses you may experience some side effects. For most people the side effects are mild, and not everyone will have all of these. Please tell us how you are- we are here to help.

Smoking during radiotherapy has been shown to reduce the effectiveness of the treatment and increase side effects. If you smoke, please discuss this with the staff so we can offer support.

Early Side Effects (during or up to 12 weeks after your treatment)

Tiredness

You may feel more tired than usual for several weeks until after the end of treatment. Rest if you feel tired. If you feel fit enough, gentle exercise can help

Shortness of breath and/ or raised temperature

Occasionally radiotherapy to the lung can produce inflammation in the lung tissue. The inflammation (or pneumonitis) can cause symptoms of increased shortness of breath, wheezing, fever or cough for up to 6 to 12 weeks after the treatment has finished. Do not be alarmed if you cough up a small amount of breath.

Pneumonitis is less common in lung SABR compared to standard radiotherapy. However, if you get these symptoms please contact your Clinical Oncologist or Lung Cancer Nurse Specialist as we would prescribe oral steroid tablets to help your symptoms and reduce your inflammation.

Sore, red skin

You may experience a skin reaction to the area being treated. This reaches a peak after the end of the course of treatment. You can minimise this by following the advice of the radiographers (and our skin care leaflet)

Difficulty in swallowing

This is uncommon in lung SABR compared with standard lung radiotherapy. However, if you get these symptoms please try eating soft

foods. Drinking plenty of fluids can also help. We may prescribe painkillers and/ or other medication to enable you to continue eating and drinking normally.

Pain in the chest wall (rib cage)

If your lung tumour is close to the chest wall, you may have some pain after your radiotherapy treatment. This is usually mild and relieved with simple painkillers e.g. paracetamol. If the pain is more severe, please contact your Clinical Oncologist, Lung Cancer Nurse Specialist, or the radiotherapy department.

Muscular aches

Some patients find that they get some muscular aches caused by lying on the treatment couch and holding either one or two arms up for approximately 30-45 minutes. If you feel any discomfort please tell the staff.

Late Side Effects

Lung scarring/ fibrosis

A possible effect can be scarring or fibrosis of part of the treated lung. This can lead to long term increased breathlessness, cough and reduced ability to exercise. Every effort will be made to reduce the risk. A few patients may need permanent oxygen therapy, although this is rare.

Chest wall pain/ rib fractures

For tumours close to the ribs, there is a small risk that the radiotherapy may weaken the ribs and cause pain which normally settles with painkillers. There is also a possibility of a rib fracture.

Skin

There may be some skin change and swelling underneath as a result of scarring. These effects do not usually require any treatment, although it is best for this to be checked by your doctor/ oncologist.

Nerve damage

For tumours close to the top of the lungs or close to the spinal cord, there is a very small risk of damage to the nerves going to the arm or down the spine. This may cause long term paralysis, numbness or pain in part of the arm. The possibility of this happening is very small and great care is taken to avoid or minimise the radiation dose to these nerves.

Long Term Follow Up

Appointments

These may be every 3 months in the first year and then 6 months for the following 4 years (or at the clinician's discretion)

CT Scans

These may be carried out at 6 and 12 months, and then yearly for 5 years (or at the clinician's discretion).

Contact details

Should you require further advice or information please contact:

Radiotherapy Reception/Transport queries (01772) 522900

Radiotherapy Appointment queries (01772) 522931

Sources of further information

www.lancsteachinghospitals.nhs.uk

www.nhs.uk

www.patient.co.uk

www.accessable.co.uk

www.macmillan.org.uk

All our patient information leaflets are available on our website for patients to access and download:

www.lancsteachinghospitals.nhs.uk/patient-information-leaflets

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If you want to stop smoking you can also contact the Quit Squad Freephone 0800 328 6297.

Please ask if you would like help in understanding this information. This information can be made available in large print and in other languages.

Gujarati:

આ માહિતીને સમજવામાં સહાયતા જોઈતી હોય તો ફપાલકરીને પૂછો. આ માહિતી મોટા છપાણામાં અને અન્ય ભાષામાં ઉપલબ્ધ કરી શકાય છે.

Romanian:

Vă rugăm să întrebați dacă aveți nevoie de ajutor pentru înțelegerea acestor informații. Aceste informații pot fi puse la dispoziție în format mare și în alte limbi.”

Polish:

Poinformuj nas, jeśli potrzebna jest ci pomoc w zrozumieniu tych informacji. Informacje te można również udostępnić dużym drukiem oraz w innych językach

Punjabi:

ਜੇ ਤੁਸੀਂ ਇਹ ਜਾਣਕਾਰੀ ਸਮਝਣ ਵੱਲੋਂ ਮਦਦ ਲੈਣੀ ਚਾਹੋਗੇ ਤਾਂ ਕਰਿਪਾ ਕਰਕੇ ਇਸ ਬਾਰੇ ਪੁੱਛੋ। ਇਹ ਜਾਣਕਾਰੀ ਵੱਡੇ ਪ੍ਰਿੰਟ ਅਤੇ ਹੋਰਨਾਂ ਭਾਸ਼ਾਵਾਂ ਵੱਲੋਂ ਮੁਹੱਈਆ ਕੀਤੀ ਜਾ ਸਕਦੀ ਹੈ।

Urdu:

دو سر ی زبانوں او ر بیڑ ی اگر آپ کو ہی معلومات سمجھنے کے یئل مدد یك ضرورت ہے تو یی چھپا یں یی ای دست بو یسکت ہے براے مہر یان یو یی چھ ہی معلومات

Arabic:

مطبوعه بأ ح ر ف ك ب ي ر ة و بلغات إذا كنت تر يد مساعده في فهم هذه لمعلومات يُر جى أن تطلب آخرى يمكن تو فير هذه المعلومات

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