

Patient Information

## Arden Cancer Centre

# Radiotherapy Information for Patients Undergoing Stereotactic Ablative Body Radiotherapy (SABR) to the Lung

## What is Radiotherapy?

Radiotherapy is the use of high-energy radiation to kill cancer cells in the area being treated. Radiotherapy can also change normal cells in the treatment area which can cause some side effects. However, radiotherapy is planned very carefully to minimise treating as much healthy tissue as possible in order to reduce these side effects. The tissues usually heal, with an improvement in side effects and symptoms over time.

Radiotherapy is delivered by highly trained staff called therapy radiographers on machines called Linear Accelerators.

Both male and female staff will treat you. We are a teaching hospital and have student radiographers on placement in radiotherapy who are supervised by trained staff.

For more information about radiotherapy and to watch our department video go to:

<https://www.uhcv.nhs.uk/our-services-and-people/our-departments/radiotherapy/>

## What is stereotactic ablative radiotherapy (SABR)?

SABR is a way of delivering radiotherapy that allows us to give a higher dose of radiation to the tumour, increasing the chance of tumour control, without causing more side effects to normal tissue. Not everyone is suitable for SABR treatment. Your oncologist will discuss this with you. As we are able to deliver a higher dose of radiation each time, overall treatment time for SABR is much shorter than for standard radiotherapy.



## Patient Information

Typically patients will have 3, 5 or 8 treatments compared with 20 treatments for standard radiotherapy, (though each session will be longer than for standard radiotherapy).

## Consent forms

Before you have this procedure you will be required to sign a consent form which indicates that your doctor has explained the treatment procedure and any possible side effects to you and that you agree to go ahead with treatment.

## Pacemakers

**If you have a pacemaker, or implantable defibrillator, please mention this to both your doctor and the radiographers before your first appointment as the performance of your device can be altered by the treatment and it may need testing before and after treatment.**

## Pregnancy

If you are, or become pregnant at any time before or during your treatment, it is important to inform a member of staff as soon as possible. There is a significant risk to an unborn baby from radiotherapy.

For advice on contraception please speak to your consultant or GP.

## What is treatment planning?

Usually a period of planning or preparation is required before your treatment can start. This is to allow accurate “aiming” of the radiotherapy at your tumour and calculation of how to deliver the correct dose of radiation to it.

## CT Planning Scan

You will be given an appointment to attend the CT scanner in the Arden Centre to have your treatment planned. This is a normal CT scan, but it is used to show areas we need to treat and those we need to avoid. You will not be given any results from this scan.

## Patient Information

You will need to remove the clothing from your chest for the scan, women might like to wear a small crop top which can then be pulled down when required. You may be asked to lie with your arms up beside your head in a special individually made support. You will be positioned in the same way for all of your subsequent treatments.

Some patients with tumours near the neck may also be required to have a plastic face and neck mask made which you wear during treatment. This helps to keep your head and neck still so that we don't have to put pen marks on your neck. You will need to wear the mask for the CT scan and subsequent treatment. There is a separate booklet describing how the mask is made. Please ask for more information if this applies to you.

## Contrast

Sometimes an intravenous contrast medium is used to help the radiographers, doctors and physics team to see organs more clearly on the CT scan. This will involve having a needle put into your arm which will be removed after the CT scan. You will be told if you need contrast and given information about it. If you have had contrast before and had any kind of reaction to it please let your doctor or the radiographers know. This is only required for treatment planning and not whilst you are on daily radiotherapy.

## Skin Marks

During your CT scan you will have marks put onto your skin. These marks correspond to the area that will be treated. In most cases, with your permission, we can put tiny permanent dots of dye just beneath the skin which will not wash off, called tattoos. If we are unable to do this you will need to keep felt tip pen marks on your skin for the duration of your treatment.

After your CT scan there will be a gap of about 3 weeks before your radiotherapy treatment starts, during which time doctors, physics staff and radiographers are preparing your treatment.

## Patient Information

### Treatment

SABR is given in three, five or eight treatments, usually on alternate days.

The radiographers will deliver the treatment as prescribed by your consultant. To do this you will need to remove the clothing from your chest and lie in the same position as you were in when you had your CT planning scan. The bed is then raised so it is closer to the machine.

The radiographers will dim the lights and use laser lights to line up your tattoos. Once you and the treatment machine are in the correct position, the radiographers leave the room to switch the machine on, you need to remain as still as possible and breathe normally. The treatment machine will move around you during the treatment, but nothing will touch you. You will not feel anything during the treatment, but the machine will make a buzzing noise.

The treatment times are around 45 minutes, images are taken beforehand to check that the treatment is correct before it is given. The radiographers watch you all the time on a monitor and will turn the machine off and enter the room if you move or call for assistance.

**Occasionally on your first appointment we may need to carry out additional checks on the images we take meaning this session will be classed as a 'practice' session and you will not receive any treatment on this day. Your treatment will then begin at your next appointment.**

Once the machine has switched off there is no radiation present, you will not be radioactive and are safe to be near children and pregnant women.

### Side effects of treatment

Treatment is painless but can cause some side effects. Treatment affects people in different ways and it can be difficult to predict which side effects will affect you and how severe they will be. Most side effects will last 2-4 weeks after radiotherapy has finished. The full benefit of the treatment is not usually reached until some weeks after the last treatment session. Side effects can be thought of as early (acute) and late (chronic) effects.

### Early effects

These occur during your treatment and for a short while afterwards.

## Patient Information

### **Tiredness:**

- Most people feel tired as a result of having radiotherapy treatment. Tiredness will often come on gradually as the treatment progresses and may persist for some weeks after treatment has finished.
- If you feel tired try to rest or sleep. If you are feeling up to it, regular exercise can help, such as taking a short walk.

### **Coughing and breathlessness:**

- You may develop a cough and possibly experience some sputum which may change in colour or contain some blood.
- A tickly cough may be relieved with frequent sips of fluid especially at night. Sometimes codeine linctus can help
- You may also feel more breathless. .
- Continuing to smoke may make your symptoms worse.

### **Hair loss:**

- You will only lose hair in the area being treated, e.g. Chest hair.
- This is likely to occur about two weeks into your treatment.
- This hair loss is usually temporary; however in some cases this may be permanent.

### **Effects on the skin**

The effects of radiotherapy on the skin are usually minimal for this type of treatment.

However, radiotherapy may cause a skin reaction similar to exposure to the sun in the area treated towards the end of treatment and during the first one or two weeks after treatment has finished. Rarely moist patches can develop.

We advise that you:-

- Wash treated area daily with your usual soap or shower gel;
- Don't have the water too hot or soak for too long;
- Use a soft towel to pat your skin dry;

## Patient Information

- Avoid wearing tight clothes in the area being treated;
- Do not use sunbeds;
- Do not swim if your skin is blistered or peeling;
- Use a moisturising cream to soothe and moisturise the skin;
- Avoid extremes of temperature – hot or cold;
- Continue to use deodorants if desired, unless they are found to irritate the skin or the skin is broken.
- Avoid any perfumes or aftershaves in the treatment area;
- Keep the treated area out of the sun during treatment and care should be taken in the future by using a high factor sun cream – factor 30 or above.
- Avoid shaving in the area being treated (if you have to shave then use an electric razor for dry shaving only. When the skin becomes visibly red, stop shaving). No wet shaving, hair removal creams, lasers or wax should be used.
- Avoid using sticky tape in the treatment area such as Elastoplast or Micropore.

## Late side effects

Late side effects can happen many months to years after you have completed your treatment. They are determined by many factors, your consultant will discuss with you any late effects that may be relevant to your treatment, and these may include:-

### Breathlessness

- Radiation can cause inflammation of the lungs (radiation pneumonitis) 6-12 weeks after finishing treatment. This can cause shortness of breath, fever and cough. It can be mistaken for a chest infection but does not resolve after a course of antibiotics. It can be treated with steroids to reduce the inflammation. This is rare, but do contact your Lung Specialist Nurse if you have these symptoms.
- Scarring (fibrosis) of the lung can happen after 6 months. This scarring is permanent and can cause a small portion of the lung to collapse.

## Patient Information

- Please discuss these side effects with your specialist lung nurse who can advise you on techniques to help make breathing easier. You may need to see your GP for antibiotics or other drug treatment to help.

### **Damage to the bones**

- Radiotherapy can make your bones more fragile in areas that are treated, such as the ribs, and can lead to osteoporosis.

### **Heart damage**

- Occasionally, radiotherapy to the chest can cause inflammation of the lining surrounding the heart (pericarditis) or some weakening of the heart muscle (myopathy) resulting in chest pain and shortness of breath.
- This is rare and may require further investigation and treatment.

### **Spinal cord damage**

- This is extremely rare but radiotherapy near the spinal cord carries a risk of nerve damage.

### **Brachial Plexopathy:**

- For tumours close to the top of the lung there is a very small chance of damage to the nerves in the upper arm. This could result in weakness or numbness to part of the arm.

The risk of both spinal cord damage and brachial plexopathy is very small as great care is taken to avoid or minimise dose to these structures.

### **Second malignancy**

- There is a very small risk of developing a second cancer in the area treated beyond 10 years after treatment.

## Patient Information

Please discuss any new symptoms that you experience after your treatment, with your consultant in the follow up clinic.

If you are concerned about the late effects of radiotherapy treatment, or would like more information, please speak to your Consultant, your Clinical Nurse Specialist or the Macmillan Radiotherapy Specialist on 024 7696 7290.

## After Treatment

The early side effects from the treatment will continue for several weeks after the treatment course has been completed. After finishing treatment, you will receive an appointment to see your consultant between four and six weeks later. At this appointment any further treatment or investigations will be discussed with you.

If you haven't received an appointment within three weeks of completing treatment, please telephone radiotherapy reception on 024 7696 7272.

If you have any problems concerning your radiotherapy treatment you can contact the Macmillan Radiotherapy Specialist on 024 7696 7290.

## Where is the Arden Centre?

The Arden Centre is situated in the west wing of University Hospital Coventry. Please ask or visit the University Hospital web site for up to date maps and directions: [www.uhcw.nhs.uk/](http://www.uhcw.nhs.uk/)

## How shall I travel?

### By car

You can drive whilst having radiotherapy treatment unless you have been advised not to for another reason.

Sat Nav postcode: CV2 2DX

At busy times it can be very difficult to park so please allow extra time. There are several visitor car parks across the site and there are drop-off points by the Arden Centre and near the main entrance which allow for 10

## Patient Information

minutes of free parking. Disabled car parking facilities are located near the main entrance. Charges apply in all car parks and Automatic Number Plate Recognition (ANPR) is live across all visitor car parks, this means that our car parks no longer issue tickets at barriers and instead read your number plate as you enter. Payment is then required at one of the payment machines before exiting the car park and can be made using cash, card or contactless. Payment can also be made by telephone or online before midnight, see the trust website for details.

**However, you are entitled to free parking whilst on radiotherapy treatment, you will need to give your registration number to the Arden Centre receptionist on arrival, if you don't know your registration number we suggest you make a note of it or take a photo of the number plate. Please note that free parking does not include clinic appointments, complementary therapy and counselling appointments, all of which must be paid for.**

## Public transport

Many bus routes include the hospital with buses driving onto the site, stopping close to the main entrance. For more information about bus services to University Hospital see the Transport for West Midlands website: <https://www.tfwm.org.uk/>

## Hospital transport

Hospital transport is available where there is a medical need, not for social or financial reasons.

If you receive Disability Living Allowance Mobility Component or have a vehicle under the mobility scheme you may not be entitled to access hospital transport.

If you need hospital transport and feel that you are eligible you will need to book it yourself, giving 48 hours' notice. You will need to telephone:-

## West Midlands Ambulance Service

01926 310312 (for bookings only)

01926 488410 (for queries on day of travel only)

## Patient Information

### **Thames Ambulance Service (Leicestershire)**

0345 241 3012

### **Northamptonshire Ambulance / NSL**

0843 2086888

### **Worcestershire Acute Trust Transport Service**

0300 0110017

In most cases you will not be able to bring anyone with you. Whilst your transport will be booked to get you to the hospital for your appointment time this cannot be guaranteed but you will be treated as soon as possible after you arrive. Due to the demand on the hospital transport service patients will often be waiting at the Arden Centre to be taken home for some considerable time. We advise that, where possible, patients make their own travel arrangements. If you have to rely on the hospital transport service, please make sure that you bring food, drinks and any medication that you may need for the day with you. There is a refreshment kiosk where you can buy snacks and drinks which is open from 10am-4pm.

## **Transport Schemes**

There are volunteer transport schemes operating in some areas. These schemes will charge a mileage rate which varies. For more information please ask to speak to the Macmillan Radiotherapy Specialist.

## **Travel Costs**

The NHS Hospital Travel Cost Scheme enables people in receipt of certain benefits or who are on a low income to claim back some of their travel costs. Please ask to speak to the Macmillan Radiotherapy Specialist for more information.

## **Prescriptions**

All cancer patients are entitled to free prescriptions. If you haven't already got an exemption card please ask a member of staff for an application form.

## Patient Information

### **Appointments**

The department is usually open from 9.00am – 5.00pm Monday to Friday and is closed at weekends and on public holidays.

Radiotherapy treatment machines are very complex; they are maintained by a team of in house physicists and technicians. Delays in treatment can happen due to machine breakdowns and servicing.

Breaks in treatment due to public holidays and machine maintenance do not affect most people's treatment. However, some patients may be asked to come in for treatment on these days, when a different treatment machine could be used.

It is not advisable for you to miss any other appointments, but if it is unavoidable please talk to the radiographers who are treating you.

It is important that we have a contact telephone number for you as we often have to telephone patients at short notice about appointments or with other information.

If your telephone is set to bar incoming calls from withheld numbers, please give us a different telephone number.

### **Counselling**

There is a counselling service available at the Arden Centre, for more information speak to your specialist nurse, doctor or radiographer, or telephone 024 7696 7478

### **Complementary therapy – maybe unavailable due to Covid 19 restrictions**

Aromatherapy, reiki, massage, Indian head massage and reflexology are available to oncology patients. Therapists are volunteers and provide their services to patients free of charge. Yoga sessions are available once a month.

## Patient Information

The counselling and complementary services are by appointment only, please ask a member of staff, or telephone 024 7696 7290.

## Smoking

It is strongly recommended that you **stop smoking** completely whilst undergoing radiotherapy. Smoking can make treatment side effects more severe, the treatment harder to tolerate and less effective.

For help to stop smoking contact the hospital's stop smoking service 0800 122 3780 or 07377 558478.

## Information and Support

**Macmillan Cancer Information Centre** 024 7696 6052

We can offer free support, practical advice and information to anyone affected by cancer. No appointments are required and an answering machine facility is available. Open Monday to Friday 9.00am to 4.00pm, the Centre is located on the ground floor in the main entrance.

## Useful telephone numbers:

**Lead SABR radiographers, Becky Hawkesford, Alysha Forrest**  
024 7696 7290

**Arden Cancer Centre** – 024 7696 7272 Monday to Friday 9.00am-5.00pm

**Oncology Ward 35:** 024 7696 5525 or 024 7696 5528 or 024 7696 5531  
(24 hour emergency advice only please)

**Radiotherapy Information and advice:** 024 7696 7290

Macmillan Radiotherapy Specialists  
Monday – Friday 9.00am – 5.00pm

**Planning Radiographers:** 024 7696 7454

## Patient Information

**NHS advice** - use the 111 service

**Macmillan Cancer Support:** 0808 808 00 00

[www.macmillan.org.uk](http://www.macmillan.org.uk)

**Cancer Research UK:** 0808 800 4040

[www.cancerresearchuk.org](http://www.cancerresearchuk.org)

**British Lung Foundation:** 03000 030 555

[www.blf.org.uk](http://www.blf.org.uk)

**The Roy Castle Lung Cancer Foundation:** 0333 323 7200

[www.roycastle.org](http://www.roycastle.org)

## Patient Satisfaction

We hope that you have found this booklet helpful. We welcome your comments on the care that you experience and the service that we offer within the Arden Cancer Centre.

We ask that specific complaints be addressed to a member of staff so that, in line with University Hospitals Coventry and Warwickshire NHS Trust's complaints policy, they can be dealt with quickly and efficiently.

If you need help, information or advice, either during, or at any time after your course of treatment has finished, please telephone: 024 7696 7290, Monday to Friday 9.00am to 5pm and speak to the Macmillan Radiotherapy Specialist.

Written by Becky Hawkesford, Alysha Forrest (Lead SABR radiographers), Julia Biggs & Alison Crichton (Macmillan Radiotherapy Specialists) with help and advice from the medical staff of the Arden Cancer Centre, University Hospitals Coventry & Warwickshire NHS Trust, Coventry CV2 2DX

## Patient Information

The Trust has access to interpreting and translation services. If you need this information in another language or format, we will do our best to meet your needs. Please contact 024 7696 7272.

This Trust operates a non-smoking policy on the hospital site. Please respect other patients and staff and refrain from smoking whilst visiting the hospital. Thank you.

To give feedback on this leaflet please email [feedback@uhcw.nhs.uk](mailto:feedback@uhcw.nhs.uk)

<b>Document History</b>	
Department:	Oncology
Contact:	27290
Updated:	January 2022
Review:	January 2023
Version:	3
Q-pulse:	V6
Reference:	HIC/LFT/2336/18