

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, usually X-rays, to kill cancer cells. Radiotherapy can damage normal cells in the treatment area too but they usually repair themselves, whereas cancer cells cannot. The damage to normal cells results in some side effects but radiotherapy is planned very carefully to avoid treating as much healthy tissue as possible in order to reduce these side effects.

Radiotherapy is delivered by highly trained staff called Therapy Radiographers on machines called Linear Accelerators, although some superficial skin treatments are given on smaller machines. 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.

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. 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).



Patient Information

Consent forms

Before you undergo 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.

Pacemakers

If you have a pacemaker please mention this to both your doctor and also the radiographers, before your first 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.

Planning your treatment

At your first visit you will have a planning CT scan, (computed tomography). This is not a diagnostic scan, (as you may have previously had), and is used by the oncologist and planning team to produce an individualised treatment plan.

You will be asked to remove your clothing from above the waist. Women might like to wear a small crop top which can then be pulled down when required. Please ask if you are unsure. You will be positioned as you will be for treatment, with arms up above your head and a customised bag will be moulded around you to provide support. It is important that you are comfortable and breathing normally throughout the scan and treatment so if you think you may find it difficult to keep your arms above your head please let us know.

Pen marks will be put onto your chest which can be washed off after your visit and some small plastic markers will be placed on to your skin with tape.

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Some people may be treated with arms down and will need to wear a mask made that covers their head, neck and shoulders, depending on the location of their tumour.

The mask is perforated so that you can breathe through it. The mask helps you keep very still and to make sure you are in the same position for each treatment. If a mask is required it will be made on your first visit to the Arden Centre and then the CT scan will be taken with you wearing the mask.

A small monitor will be placed on to your chest/abdomen which will monitor your breathing throughout the scan. You will not need to hold your breath and will preferably maintain a steady breathing pattern.

Once in position the radiographers will carry out the scan which will take approximately 10 minutes. You will be alone in the room during the scan, but the radiographers will be watching you at all times.

When the scan is complete, 3 very small, permanent tattoo dots will be applied to your skin – this is done by scratching the surface of the skin with a needle and ink. These dots will be used to accurately position your treatment on subsequent visits.

(If a mask has been made, no tattoos will be required).

After the scan, a period of planning is required before your treatment can start during which time doctors, physics staff and radiographers are preparing your treatment. Once the plan is near completion you will be contacted with your treatment start date. This can be up to four weeks from your planning CT scan.

Contrast

A contrast medium, often referred to as a dye, may be given to help the radiographers, doctors and physics team to see organs more clearly on the CT scan. This will be injected into a vein. You will be told if you need contrast and given information about it. This is only required for treatment planning.

Patient Information

Having your treatment

SABR is given in three, five or eight treatments, usually on alternate days. Your doctor will decide how many treatments you will be having.

The radiographers will deliver the treatment as prescribed by your consultant. Your treatment is given with you lying in the same position as you were in when you had your CT planning scan. At each session you will be asked to remove your clothing from the waist up, so that the radiographers can see the permanent tattoo marks on your skin. The bed is then raised so it is closer to the machine. The radiographers use laser lights to line up your tattoos. The radiographers will help you into the correct position by moving the couch and treatment machine and by manipulating your body position by tiny amounts. A team of radiographers work together in the treatment room and you will hear them giving each other instructions and information relating to your treatment.

Once positioned, the radiographers will leave the room to switch the machine on. **During treatment it is important for you to stay as still as possible and to breathe normally.** The treatment machine will move around you but will not touch you. You will not feel anything during treatment. You will be alone in the room during treatment but the radiographers will be watching you at all times on CCTV. The radiographers may come in and out of the room several times to change equipment – **it is very important to remain still during this time.**

Each treatment session will last approximately 45 minutes.

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.

Some days the radiotherapy department may be very busy and your appointment time may be delayed. We will keep you informed of any delays via the patient calling system in the waiting room.

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Your appointments may not all be at the same time each day and are subject to change, though we do try to accommodate specific needs where possible.

Side effects of treatment

As your treatment progresses you may experience 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. Please tell the radiographers how you are feeling, particularly if your symptoms worsen, so that you can get the care you need.

Side effects can be thought of as early (acute), and late (chronic), effects.

Early effects

Early side effects usually begin about halfway through the course of treatment and may last for several weeks after it has finished before slowly settling down.

Tiredness: It is common to feel more tired than usual towards the end of your treatment and in the weeks following radiotherapy. Ensure you drink plenty and rest when you feel necessary. Gentle exercise may also help the symptoms of tiredness and fatigue.

Coughing: You may develop a cough and possibly produce more sputum than normal which can be blood stained. Let the radiographers know if it changes colour or contains a lot of blood. A tickly cough may be relieved with frequent sips of fluid especially at night. Sometimes codeine linctus can help. Smoking may make your symptoms worse.

Breathlessness: You may feel more breathless than normal during treatment and for a short while afterwards but this should improve over the following weeks.

Radiation pneumonitis (inflammation of the lung) can occur 6-12 weeks after treatment finishes. This can cause shortness of breath, fever and

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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.

Aches and pains: You may have aches and feel some discomfort in your chest area. Soluble painkillers can help to make you feel more comfortable. Your radiotherapy doctor or radiographer will be able to give you more advice.

Hair loss: You will only lose hair in the area being treated, e.g. Chest hair. This hair loss can be temporary however in some cases this may be permanent. Your consultant or a member of the team will be able to discuss this with you.

Difficulty swallowing and indigestion: Occasionally, you may experience some difficulty swallowing and heartburn. If this does happen please talk to the radiographers who will advise you on managing symptoms. This is uncommon in SABR compared to conventional radiotherapy.

Loss of appetite: Your appetite may vary during treatment. Eating little and often can help. Food supplements are available through your GP. You may be referred to a dietician if you are struggling with eating.

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. This may occur towards the end of treatment and during the first one or two weeks after treatment has finished.

We advise that you:-

- Wash treated area daily with your usual soap or shower gel and pat your skin dry with a soft towel.

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- Apply your usual skin moisturiser on the treatment area two or three times a day. Gently smooth it onto your skin until it is absorbed. Do not apply just before your treatment.
- If you need to, ask your GP to prescribe a suitable skin moisturiser, otherwise discuss this with your treatment radiographers at the start of your radiotherapy. They may be able to give you a sample moisturiser to try.
- Continue to use deodorants if desired, unless they are found to irritate the skin or the skin is broken.
- Wear loose-fitting clothing next to the skin (cotton is a good natural fibre).
- Avoid any perfumes, aftershaves, make-up, hair dye or other creams in the treated area.
- Avoid the use of sun lamps, spray tans or skin colouring lotions.
- Avoid using hot water bottles or ice packs 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.
- Drink plenty of fluids.

Swimming

You may continue to swim if your skin is not blistered or peeling, providing that you wash the treatment area before and afterwards and apply moisturiser. Care should be taken as chlorinated water can have a drying effect on the skin. Do not swim if you have an infection or your skin is irritated.

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Late side effects

Long term side effects can occur many months to years after you have completed your treatment. These side effects are hard to predict and if they occur can be permanent. We plan the treatment to avoid the areas around the tumour as much as possible in order to reduce these effects.

Lung scarring/collapse

Lung SABR treatment will cause scarring of the lung tissue in the area where the cancer was treated. This scarring is permanent and can cause a small portion of the lung to collapse. The precise planning of your treatment will keep this to a minimum. However in some patients this scarring and collapse can make you become more short of breath and in rare cases you may require oxygen.

Rib fractures/chest wall pain

Radiotherapy can make your bones more fragile in areas that are treated. For tumours close to the ribs there is a chance that the ribs will become weaker causing pain and possible fracture. For most patients, this is only discovered when you have a scan at a later date.

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. However, the risk of this is very small as great care is taken to avoid or minimise dose to these nerves.

Second malignancy

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

After Treatment

After finishing treatment, you will receive an appointment to see your consultant between four and six weeks later. If you haven't received this

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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.uhcv.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 near the main entrance and the Women's and Children's entrance which allow for 10 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.

Patient Information

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 call the traveline on: 0870 608 2608 or visit www.networkwestmidlands.com.

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)

Thames Ambulance Service (Leicestershire)

0345 241 3012

Northamptonshire Ambulance / NSL

0843 2086888

Worcestershire Acute Trust Transport Service

0121 307 911601926 310311 (for queries on day of travel)

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 ensure 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.

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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 or ask at the Health Information Centre

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.

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 occur 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 an alternative telephone number.

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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 call the National smoke free Helpline on 0300 123 1044 or contact the hospital's stop smoking service on 024 7696 4760

The Counselling and Complementary Therapy Service

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

Aromatherapy, reiki, massage, Indian head massage, reflexology and yoga are available to oncology patients. Therapists are volunteers and provide their services to patients free of charge. Complementary therapies are by appointment only, please ask a member of staff, or telephone 024 7696 7290.

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.

You may find these information booklets useful:

- Understanding Radiotherapy
- Understanding Lung Cancer
- Coping with Fatigue
- Coping with Breathlessness

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Useful telephone numbers:

Lead SABR radiographer, Marie Brown, 024 7696 7290

Arden Cancer Centre – Monday to Friday (9.00am – 5.00pm)

Radiotherapy reception: 024 7696 7 272 For queries concerning appointments, parking and ambulance transport

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

Cancer and Radiotherapy Information and advice: 024 7696 7290

Macmillan Radiotherapy Specialists Monday – Friday 9.00am – 5.00pm

NHS advice - use the 111 service

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 9.30am to 4.30pm and speak to the Macmillan Radiotherapy Specialist.

Written by Marie Brown (Lead SABR radiographer), 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.

Help to stop smoking can be obtained from your local NHS Stop Smoking Service: 0300 123 1044 or the hospital's Stop Smoking Service on 024 7696 4760

Document History

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