

Radiotherapy

Stereotactic ablative body radiotherapy (SABR) for cancer that has spread to other sites (oligometastases)

Information for patients, relatives and carers

Introduction

We have designed this leaflet to provide you with more information on stereotactic ablative body radiotherapy (SABR). It is specifically for people with cancer that has spread to a small number of other sites within the body (oligometastases).

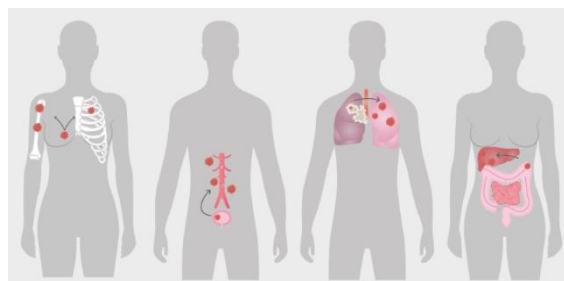
What is radiotherapy and how does it work?

Radiotherapy is the use of high energy x-rays to treat tumours.

What are the benefits of SABR?

SABR treatment is tailor-made for your specific needs. So, it may differ slightly from the description in this leaflet.

It may also be different to what another patient with a similar diagnosis may be having. If you have any questions, please do not hesitate to speak with the team. See contact numbers at the end of this leaflet.



Reproduced from Remy Kinj et al (2022)

[Cancers | Free Full-Text | Stereotactic Body Radiation Therapy in Patients with Oligometastatic Disease: Clinical State of the Art and Perspectives | HTML \(mdpi.com\)](#)

SABR is an effective way of giving accurate radiotherapy to small tumours in the body. It is given over fewer treatment sessions compared to conventional radiotherapy regimens and increases the chances of controlling the tumour. The aim is usually to eradicate the entire tumour.

Carefully calculated doses of radiation are directed precisely at the tumour(s) while sparing the rest of the normal tissue as much as possible. This can lead to a reduction in side effects. However, it can affect some healthy tissue and you may experience short-term side effects.

When recommending radiotherapy, your doctor has considered the risk of the tumour returning or growing if no radiotherapy is given. While the treatment may have some side effects, it is felt that the advantages for you will outweigh the disadvantages.

What are the alternatives?

You may decide that you do not want to have radiotherapy. This is an option you can choose. You can talk again with your doctor and let them know what you have decided.

You may request a second opinion on your diagnosis or treatment. You can do this at any time during your consultation or treatment process. Please speak to your clinical oncologist or GP about how to go about this.

Important information to let us know before starting radiotherapy

Pacemakers and implanted cardiac devices (ICDs)

- please tell us if you have a pacemaker or ICD but did **not** discuss this with your clinical oncologist when you signed the radiotherapy consent form. Use the number on this leaflet to phone the department.
- it is safe to give radiotherapy to patients who have a pacemaker but there are a few precautions we may need to take. You may need to attend some extra appointments.
- please bring your pacemaker ID card to your CT planning scan appointment

Pregnancy

- all female patients under the age of 55 will be asked if there's a chance they are pregnant
- it is crucial that you are not pregnant and do not become pregnant while undergoing radiotherapy planning and treatment
- if you think you may be pregnant at any time during your treatment, please tell your clinical oncologist or radiographer immediately
- if necessary, please speak to your doctor about contraception suitable for use during radiotherapy.

The radiotherapy process

We outline the process of having SABR at our hospital below:

- all patients give their consent to radiotherapy in an outpatient clinic. We provide radiotherapy information leaflets at this consultation

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- we book your radiotherapy appointments. We confirm these by letter. You may also get a phone call and an SMS (text) message to your phone.

1) Pre-treatment appointment and planning CT scan

You will need to attend the CT (computerised tomography) scanner for a pre-treatment planning CT scan appointment. This usually takes 40 to 60 minutes.

2) Planning your radiotherapy treatment

We use the CT scan to plan your treatment. This planning usually takes 3 to 4 weeks. You do not need you to attend hospital during this time.

3) Practice session

- you may need to attend for a practice run, called a simulated treatment session
- if this is the case you will be given an appointment
- this usually takes 1 hour
- no radiotherapy is given at this session
- we can use it to prescribe medications that might be necessary to make your treatment easier

4) Treatment

- you will need to attend for the prescribed number of treatments. This is usually 3 to 5 sessions.
- a CT scan is taken at every treatment session to confirm your position and ensure the accuracy of treatment delivery
- each session may take about 30 to 60 minutes.
- once your treatment is complete, you will be given information about follow-ups at the outpatient clinic.

Your pre-treatment appointment

- your pre-treatment appointment includes a CT planning scan. For this, you will need to go to the CT scanner that is in the radiotherapy department at Charing Cross Hospital. All the details will be in your appointment letters
- you are welcome to bring someone with you to this appointment. However, only you will be allowed in the CT scanner room
- a member of the pre-treatment radiotherapy team will explain what is going to happen

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- you will get another opportunity to discuss your treatment and side effects before going ahead with the treatment preparation
 - if you have questions for the oncologist, a radiographer can organise a meeting for you
 - we will also confirm that you still consent to have the treatment

Your pre-treatment planning CT scan

You may eat and drink as normal on the day of your scan and throughout your treatment appointments, unless told otherwise during your consultation.

How a CT scanner is used in your treatment

- a CT scanner is a specialised X-ray machine
- it produces a series of detailed pictures showing the area to be treated and surrounding tissues
- the scans are sent to a computer and used to reconstruct a 3D image
- the radiotherapy team will then use this image to accurately target your radiotherapy

How contrast agent may be used for your CT scan

- contrast agent is a fluid that shows up on X-ray images. It allows the tumour and surrounding tissues to show up more clearly on the images.
- your oncologist may ask for its use for your scan
- it is given through a needle in your arm
- it can cause side effects for a few people. The radiographers will assess you and highlight if you may be someone more likely to get these side effects
- the clinical team will then decide whether to go ahead with the contrast agent. **If they decide not to use the contrast agent, your treatment planning will still be accurate.**

Getting into position for your CT scan

- as this photograph shows, you will lie on the bed. (This will be with or without your arms up depending on which area will be treated)
- to help you keep this position during your treatment, a device called a vac-bag will be moulded to fit under your head, shoulders and arms



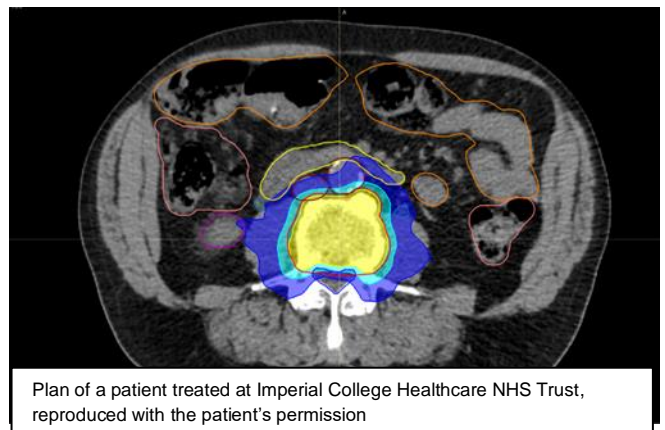
[Imperial College Healthcare NHS Trust | Accurate, safer, and faster radiotherapy treatment for cancer patients](#)

During your CT scan

- your breathing might be monitored during the scan. We do this using a small device placed on your lower chest. You are advised to breathe normally and as regularly as you can
- the radiographers will go in and out of the room several times during the procedure. You will hear them talking over you during the setting up process
- the radiographers can always hear and see you. So, if you need to communicate with them, call out or wave your arm

After your CT scan

- at the end of the session the radiographers will place two or three permanent ink dots (tattoos) under the skin around the area to receive treatment. They will ask your permission
- these marks will not come off your skin, but they may fade over time
- radiographers on the treatment units will use these permanent dots to make sure that you are correctly positioned on the couch on each visit. This will ensure an accurate treatment
- very occasionally, radiographers may take a digital photograph of you. This is to show clearly how you are positioned on the couch. They will get your permission before taking the photograph



Your CT scan appointment will take about 40 to 60 minutes.

Planning your radiotherapy treatment

After your planning scan, your oncologist will review the detailed images. They will define the exact area that needs to be treated. Planning radiographers and physicists do the rest of the planning.

Advanced planning technology

We use RapidArc™ radiotherapy technology. This is an advanced method of planning and delivering your treatment. It allows us to use precise radiation beams that conform to the shape of your tumour, while limiting the amount of radiation that reaches the surrounding healthy tissues.

The plan will then go through an extensive checking procedure.

Your clinical oncologist will then check and sign off the plan. The entire planning process can take up to four weeks.

Your practice session

A couple of days before your treatment starts, we may need to arrange a practice session in the radiotherapy department. Not everyone will need to attend a practice session, however your clinical team think this is required in your case this will be explained to you and an appointment will be made for you to attend for this session.

For some patients this additional check may be required to ensure you can maintain the treatment position and staff can complete the final safety checks.

We will also discuss your treatment with you. You will get a list of all your appointment times and instructions for further treatment sessions.

This appointment also provides an opportunity to ask any questions that may have come up since your last appointment. You can use space at the end of this leaflet to write down anything you want to ask.

Please note, staff cannot take responsibility for patient belongings brought into the hospital. So, **always keep all your personal belongings with you. Leave valuables at home.**

If you are not required to attend a practice session you will have an opportunity to ask questions and receive your appointment times before the treatment is started.

Your treatment

- the radiographers will call you into the treatment room. (This is a different room to the CT scan)
- they will introduce you to the team members who are there and ask you to lie on the treatment couch
- the radiographers will then begin to line you up into the same position you were in for your CT scan. Your permanent ink dots will help them do this
- imaging will be done frequently to check you position and small adjustments may be made to deliver precise treatment. As a result, the treatment couch may move slightly during the treatment process
- the radiographers can always see you. So, if you need to interrupt the treatment and communicate with them, raise your arm
- when you are positioned correctly, the treatment couch will be raised. It will be quite high up (about 1.4 metres or 4' 7" ft). So, it is very important you do not move or attempt to get off the couch

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- the radiotherapy treatment machine rotates around you in an arc to deliver your treatment. This allows the radiation treatment to be delivered quickly and precisely
 - you should not experience any pain during the treatment delivery. But if you are uncomfortable in the treatment position, please tell the radiographers
 - the whole procedure will take about 30 to 60 minutes. Getting you into the correct position takes up most of this time. Though you will need to stay still for a lot of this time, most people find they can manage this. You will be supported by the vac-bag.
 - once the treatment has completed, the couch will be lowered. The radiographers will tell you when it is safe to sit up and get off the couch

Are there any side effects?

- modern planning techniques have helped us to reduce treatment reactions. But some people may experience side effects from the radiotherapy
- radiotherapy side effects are closely related to the exact area of your body where you are treated. The doctor will explain them to you in clinic
- as your treatment progresses the radiographers will be talking to you each day to find out how you are feeling. This is so they can offer help and support if the treatment gives you any problems. Please feel free to discuss all issues that may be concerning you
- short-term side effects may start to develop during your treatment and can continue for up to 12 weeks after the end of your radiotherapy. After that they should begin to slowly improve. If you remain concerned at any time, please contact the Macmillan cancer navigator service using the telephone number below

What happens after completing your radiotherapy?

- the radiographer will make sure you have a follow-up appointment. This will usually be a phone call in the 4 to 6 weeks following treatment
- an appointment with your treating team will be scheduled at 3 months. A CT-scan is usually requested before this
- in due course, your GP or referring consultant will be sent a letter by post summarising your treatment in more detail.
- **please remember: you can contact the radiographers at any time after your treatment has finished if you have any concerns or questions.** See contact numbers for the radiotherapy department below
- please do not book a holiday too close to the end of your treatment. This is in case the treatment does not finish on the date originally listed on your appointment schedule. This

also allows you time to recover from any side effects you may experience any during this time

Useful telephone numbers

Radiotherapy reception: 020 3311 1737

Radiotherapy bookings: 020 3311 1612

Further sources of support and information

Macmillan cancer navigator service at Imperial College Healthcare NHS Trust

This is a single point of contact for cancer patients at Imperial College Healthcare NHS Trust, and their family, friends and carers. The service is here to help you to navigate your care and resolve queries that you may have. Our Navigators can access information about your appointments, connect you to appropriate services and signpost you on to further support. They can also book you in for a telephone call back from your Clinical Nurse Specialist (CNS) if you have a question that needs clinical input.

The service is open Monday to Friday 08:30 to 16.30 excluding bank holidays. (The service is closed for training between 14.00- 14.45 on Thursdays.)

Call: **020 3313 0303**

Macmillan cancer information and support service at Imperial College Healthcare NHS Trust

The Macmillan cancer information and support service offers free support and information to anyone affected by cancer, including family and loved ones. The service has physical centres at Charing Cross and Hammersmith Hospitals, and also offers virtual and telephone support. When you call or visit you can speak to one of the Macmillan cancer team one-on-one about whatever matters most to you. You can sign up to a range of weekly virtual groups that provide the opportunity to connect with other people with cancer in a relaxed environment. You can also speak to our Macmillan welfare and benefits adviser, who can offer patients of the Trust tailored advice on additional financial support.

The service is open Monday-Thursday (excluding bank holidays), with various drop-ins available within our physical centres. For more information please call us on **020 3313 5170** or email imperial.macmillansupportservice@nhs.net

Maggie's West London

Maggie's is a cancer charity that provides the emotional, practical and social support to people with cancer and their family and friends.

The centre offers a calming and beautiful space, a professional team of support staff, and the opportunity to talk and share with a community of people who have been through cancer too.

Maggie's centres are warm, friendly and informal places full of light and open space, with a big kitchen table at the heart of the building. Maggie's West London is located in the grounds of Charing Cross Hospital but is independent of our hospital.

The centre is open Monday to Friday, 09.00-17.00. For more information please call **020 7386 1750**.

Macmillan Support Line

The Macmillan Support Line offers confidential support to people living with cancer and their loved ones. This support line is a national line provided by Macmillan and is independent of our hospital.

The Support Line is open every day, 08:00 to 20:00. Please call: **0808 808 000** or visit www.macmillan.org.uk

How do I make a comment about my visit?

We aim to provide the best possible service and staff will be happy to answer any of the questions you may have. If you have any **suggestions** or **comments** about your visit, please either speak to a member of staff or contact the patient advice and liaison service (**PALS**) on **020 3312 7777** (10.00 – 16.00, Monday to Friday). You can also email PALS at imperial.pals@nhs.net The PALS team will listen to your concerns, suggestions or queries and is often able to help solve problems on your behalf.

Alternatively, you may wish to complain by contacting our complaints department:

Complaints department, fourth floor, Salton House, St Mary's Hospital, Praed Street
London W2 1NY

Email: ICHC-tr.Complaints@nhs.net

Telephone: **020 3312 1337 / 1349**

Alternative formats

This leaflet can be provided on request in large print or easy read, as a sound recording, in Braille or in alternative languages. Please email the communications team: imperial.communications@nhs.net

Wi-fi

Wi-fi is available at our Trust. For more information visit our website: www.imperial.nhs.uk