

**Patient
Information**

Stereotactic Ablative Body Radiotherapy (SABR) for limited spread of cancer (oligometastases)

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Introduction

Your oncologist has recommended that you have a course of radiotherapy. This leaflet aims to give you information about the radiotherapy and what will happen during treatment.

Please be aware that radiotherapy centres are training centres for doctors, nurses and radiographers. Students may be present in the department but they are supervised at all times. If you would prefer not to have students present during your treatment please let a member of staff know.

You may find it useful to write down some questions before you start your treatment. A space is provided towards the back of this leaflet for you to do so.

Useful contacts

Radiotherapy appointments: _____

Radiographers: _____

Clinical Nurse Specialist:

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What is meant by limited spread of cancer and why is this important?

Limited spread of cancer means that your cancer has spread from its original location (metastasised), but is only visible at three or less sites on CT, MRI or PET scans. Current research suggests that people with this low number of metastases may have benefit from SABR treatments. SABR can be used to treat metastases if they are found in the lungs, bones (including the spine), lymph nodes, adrenal glands or liver.

What is radiotherapy?

Radiotherapy is the use of radiation to treat a disease, most commonly cancer. Radiotherapy is the use of high energy X-rays and other types of radiation, to treat cancer. Radiotherapy itself is painless and does not make you radioactive. It is perfectly safe for you to be with other people, including children and pregnant women, during the course of your treatment.

Your treatment will be divided evenly into a number of sessions (fractions), usually given on alternate days, with a rest at the weekend. Some departments work at weekends, or weekend treatments may be given around bank holidays or in the event of a machine breakdown. The treatment delivered will be exactly the same every day. The number of sessions you have will vary depending on a number of factors. For this reason, each patient's treatment is specially tailored to them, and even those with the same type of cancer as you may receive different treatments.

The treatment will cause damage to the normal cells in the area too, but they can repair themselves much more effectively than the cancer cells. This damage is what causes the side-effects you are likely to experience during the treatment.

What is Stereotactic Ablative Body Radiotherapy (SABR)?

Stereotactic ablative body radiotherapy (SABR) is a radiotherapy technique used to deliver a high dose of radiotherapy to a small area of the body where there may be limited spread of cancer.

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Radiotherapy is delivered using a special type of X-ray machine called a linear accelerator, or 'Linac'. The staff operating these machines are therapeutic radiographers and have specialist training to carry out your SABR treatment.

SABR is an effective way of accurately targeting these areas while reducing the radiation dose to surrounding healthy tissues. This means that a higher dose of radiotherapy treatment can be given to a smaller treatment area in relatively few sessions or fractions.

The aim of SABR is to destroy (or ablate) the treated tumour. The potential benefits of this type of radiotherapy treatment are to reduce pain or other symptoms in the area to be treated and to prevent further spread of cancer to other areas of the body.

Who will I see during my treatment?

The radiotherapy will be delivered by a team of therapeutic radiographers who will see you every day and can answer any questions you may have about the radiotherapy, as well as help look after you during your treatment.

You may regularly see other professionals during your treatment, these may include:

- Specialist Therapeutic Radiographers
- Dosimetrists and Medical Physics Experts
- Mould Room Technicians
- Clinical Oncologists
- Oncology Doctors/Registrars
- Clinical Nurse Specialists
- Cancer Support Workers

There is a space at the front of this booklet to write down their contact numbers should you need them.

Planning your treatment

At your planning appointment you may be asked sign a form giving your consent to go ahead with the radiotherapy treatment, if this has not already been completed. It is a good idea to bring a list of any questions you may have and an up to date list of all your current medications. This visit may take up to 1 to 2 hours to complete, so you may wish to bring something to read, eat and drink.

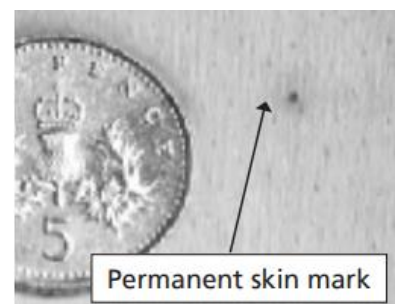
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During this appointment you will need to have a scan taken on a machine called a CT simulator. The team will work on the best position for you at this appointment. This may mean using a wing board, creating a custom bag which supports your back and arms with your arms up or a mask. Some patients find having their arms up uncomfortable, especially if they have arthritis. If you think that you might have difficulties keeping your arms above your head please discuss this with your oncologist.

Please take pain relief at least 30 minutes before your scan if you think this will make the experience more comfortable. Once you are in a suitable position the radiographers will take the required CT scans to accurately plan your radiotherapy treatment.

You may be asked to have a special contrast agent injected into a vein in your arm, commonly referred to as a dye. If so, you will be asked to fast for 2 hours before your planning appointment. The contrast agent is used to make specific organs, blood vessels and/or tissue types 'stand out', to assist the doctor when planning your treatment. You should let the radiographer know if you have any allergies, but they will go over this before they use any dye. The most common side-effects of the dye are; a warm or hot 'flushed' sensation during the injection, feeling like you need to urinate and a 'metallic' taste in the mouth. These do not last and there is no treatment necessary.

After the scan, and with your permission, 3 tiny permanent skin marks (tattoos) will be made, using a pinprick needle and permanent black ink. These permanent skin marks will be no bigger than a freckle, as shown in the image.



These marks will be used by the radiographers to get you into the right position for your treatment.

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Radiotherapy treatment



A team of radiographers will see you at each treatment appointment and ask how you are feeling. The radiographers work together in the treatment room to position you accurately, moving the treatment couch, you and the machine. You will hear them giving each

other instructions and information relating to your treatment.

During treatment the machine will move around you but the machine will not actually touch you. It is important for you to stay as still as possible but to breathe normally unless asked to breath-hold or follow a breathing pattern.

Once you are in the correct position the radiographers will leave the room to switch on the machine. The radiographers will be watching you on a closed circuit TV monitor (CCTV) to ensure your safety during the delivery of the radiation.

The CCTV allows the radiographers to see that you are keeping still and are not experiencing any distress during your treatment. The CCTV camera is not recording or saving any images. Each session takes about 30 to 45 minutes. During this time the radiographers may re-enter the room a number of times to move the treatment couch or the machine.

Some treatment machines make a high pitched noise when delivering X-rays. This is the only way that you will know that the machine is switched on. You will not feel pain, heat or any other sensation.

Some days the radiotherapy department may be very busy and your appointment time may be delayed. We will keep you informed of any delays. Your appointments for radiotherapy may not be at the same time each day and are subject to change. It is possible that during your course of treatment you may miss a day's treatment due to planned machine maintenance or bank holidays. It is therefore important to speak to a health care professional before booking a holiday immediately following your radiotherapy.

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Potential side effects will depend on the area of the body being treated.

Your doctor will discuss the relevant side effects for your particular treatment as the list below covers side effects for all treatment sites. In general, current research shows side effects are uncommon but may include the following:

- **Skin reaction**

The skin in the area being treated may become red, itchy and sore. Moisturisers can be used to relieve dry, itchy or red skin caused by treatment. Please ask your radiographers for further advice on skin care.

- **Tiredness and fatigue**

You may find that you feel tired and lack energy during treatment. If you are able to carry out gentle exercise this can help to ease fatigue. Gentle exercise includes walking, gardening and housework. If you feel that tiredness is affecting your quality of life, please let the radiographers know who can complete a referral to the fatigue clinic for you.

- **Sore throat**

If you are having SABR treatment to your upper chest or neck you may experience some discomfort in your throat. Eating soft food and taking pain relief can help to ease this discomfort.

Please let the radiographer know if you are experiencing a sore throat or are struggling to eat and drink as normal.

- **Nausea and vomiting**

If you are having SABR treatment to your abdomen, pelvis, or lower spine you may experience nausea or vomiting. This can happen just a few hours after treatment or at any time during the treatment course. The consultant will prescribe anti-sickness medication for you to take before each treatment if necessary.

A full explanation on how to take this medication will be given to you by the team.

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- **Change in bowel habit**
Your bowel habit may change if you are having treatment to your abdomen, pelvis or lower spine. Drinking plenty of fluids to replace those lost if you experience diarrhoea will help to prevent dehydration. Reducing the amount of fibre in your diet may also help to ease the symptoms of diarrhoea.

Please inform the radiographers if you experience changes in your bowel habits as advice regarding diet and medications is available.
- **Increased pain**
You may experience a temporary increase of pain in the area treated. The pain is usually mild and can be relieved by taking simple pain relief medication such as paracetamol. Please speak to the radiographers for advice regarding pain relief.

Side effects of treatment (long term)

- **Bone fracture (break)**
If you are having radiotherapy to an area of bone you may experience a higher risk of bone fractures in the area being treated, in the future. These fractures can cause pain and discomfort, the commonest example is a rib fracture when a lung metastasis is treated.
- **Liver/kidney damage**
If you are having SABR to your abdominal area there may be an increased risk of damage to your liver and kidneys. If this is the case, it can be assessed by taking regular blood tests.
- **Damage to bowel**
Rarely, radiotherapy can sometimes cause damage to the bowel which may lead to a blockage or perforation. To repair this you may require an operation.

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- **Damage to nerves and the spinal cord**

If the treatment is to your spine or close to the spine there is a risk that the radiotherapy may cause some damage to the nerves or the spinal cord in the treatment area. Treatment to these areas are carefully planned and monitored to make sure that the dose is as low as possible while delivering an effective treatment.

Your consultant will explain these long term side effects in detail when you speak to them at your clinic appointment but please ask the treatment radiographers or your specialist SABR review radiographer if you have any questions.

Self-care during radiotherapy

Try to allow time for rest. Everyone reacts differently, and as treatment progresses you will get an idea of the effect it is having on you.

Skin care in the treatment area

- Moisturise frequently; gently smooth it onto your skin until it is absorbed. Do not rub.
- Continue to use the moisturiser you prefer and like to use – if you do not currently use one, speak with your radiographer or CNS and they will be able to suggest some options.
- Do not apply moisturiser immediately before treatment.
- If a moisturiser is causing irritation, stop using it and discuss with the radiographer or your CNS.
- If your skin blisters or peels, stop using moisturiser in that particular area and ask the radiographer or your CNS for advice.
- Avoid sun exposure to the treatment area – wear a brimmed hat and/or cover up with clothing.
- **Please avoid rubbing the treatment area, using sticky tape, wet shaving, wearing make-up and using wax, hair removal cream or lasers.**

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Information****Health and wellbeing**

- Keep well hydrated – aim to drink 2 litres (4 pints) of water a day.
- Avoid drinking alcohol.
- Eat a nutritionally well-balanced diet. If you are struggling to eat, a dietitian can advise you on how to add extra nourishment to your food, adapting the texture of your diet and high energy and high protein options. They can also arrange a prescription for nutritional supplements, such as high calorie drinks to help keep your weight up.
- It is important to try to maintain your weight during treatment. This will help to ensure that your mask fits well and should minimise any interruptions to your treatment.
- Keep active if you can – activity helps to improve outcomes and help you cope better with side-effects.

What can I expect after treatment has finished?

Radiotherapy has a delayed effect in which the side-effects will continue even after your treatment has finished. They tend to reach their peak around 7 to 14 days after your last radiotherapy session, so don't be alarmed if they worsen. Recovery times vary from person to person, but side-effects should gradually improve over the following 6 to 12 weeks.

In the weeks following your treatment, you will be reviewed by the specialists that have been looking after you. This will vary depending on your diagnosis and treatment regimen, but you will be advised on this by your treatment team.

Everyone is different and may react differently to treatment. If at any point, after you have finished treatment, you are concerned about anything please contact your radiotherapy team or GP – you will be given contact details for the radiotherapy department. It is not unusual for people to be anxious and it might be better to seek advice rather than worry.

If you need urgent help out of normal working hours please contact NHS 111 for advice.

**Patient
Information****What support is available?**

Many people, quite naturally, feel emotionally upset and frightened following the diagnosis of cancer. It may be difficult to adjust to what is happening. Finding out as much as you can, about your treatment, may help to calm your fears and help you to cope better.

The therapy radiographers, and other healthcare professionals you may meet, will all be willing to listen to your worries and support you in any way they can. They may be able to refer you to support services offered in your hospital.

Questions

Please use this space to write down any questions you have, to help you remember to ask them at your first radiotherapy appointment.

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Radiotherapy summary

This page is intended for your health care professional to use when they talk to you about your radiotherapy. It is not an official document or consent, but to help summarise everything in one place for you.

You are having radiotherapy delivered to:

Your radiotherapy consultant is: _____

Treatment intent

<input type="checkbox"/> Radical radiotherapy – aiming to give long term benefits and cure in some patients – and may be in combination with chemotherapy given before, during or after the radiotherapy	<input type="checkbox"/> Palliative radiotherapy – aiming to improve symptoms. While a cure is not likely, palliative radiotherapy may also prolong life
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You will be having ___ treatments' over ___ days, not including weekends.

Side-effects

The ticked boxes below are potential side-effects that will arise from your radiotherapy treatment and depend on the area being treated. This is a guide, and will not be experienced by all patients.

Frequently occurring short term side-effects

- Fatigue
- Skin reaction
- Nausea
- Shortness of breath and/or raised temperature
- Bony pain
- Diarrhoea

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These may occur many months to years after treatment

- Fracture/compression of treated bones
- Temporary or permanent damage to the spinal cord
- Bowel damage
- Liver/kidney damage

Further information

The QR code below will direct you to further resources relating to your radiotherapy treatment. You can use your smartphone camera to scan the code:

Further information is also readily available online.

Macmillan Cancer Support

Tel: 0808 808 0000

Website: www.macmillan.org.uk

**Cancer Research UK**

Website: www.cancerresearchuk.org

Further support will be available locally, please speak to your oncology team who can advise what local charities are there to help you, and which support groups are available near you.

Your data

All personal images and photographs taken during your radiotherapy will be used in accordance with the local Trust policy on the protection and use of patient information.

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