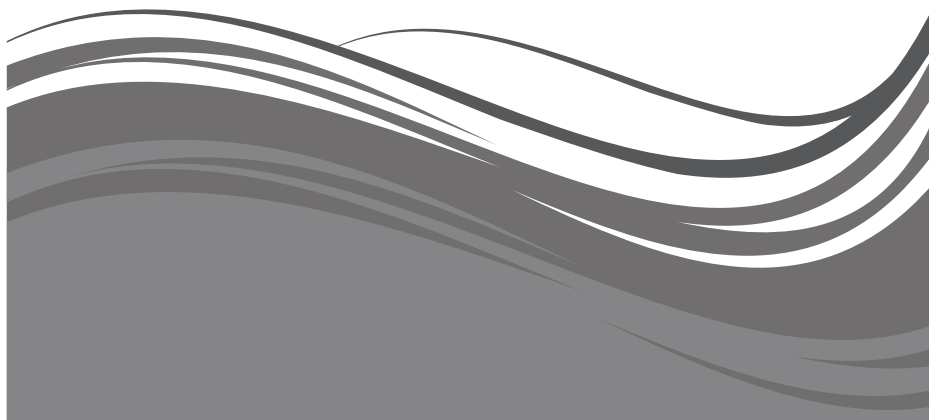


Information for Patients

Receiving Stereotactic Ablative Radiotherapy (SABR) for Oligometastatic Disease



This leaflet is for patients receiving a course of radiotherapy for oligometastatic disease. It is intended to be a guide to highlight important details that you have discussed with your treatment team. The details and side effects vary from person to person. If you have any questions or concerns, please ask us.

This leaflet describes:

- The radiotherapy planning and treatment.
- The effects that you may experience during and after treatment.
- How best to cope with these effects.
- Who to contact if you have any questions or worries.

What is Radiotherapy?

Radiotherapy is the use of carefully measured doses of radiation to treat cancer. Stereotactic ablative radiotherapy (SABR) is one method used to deliver high dose, focused radiotherapy. This treatment is used to increase the chance of controlling the tumour while sparing the normal tissues.

You will usually receive 1 - 8 treatments. You will not normally be treated over the weekend. Your treatment team will explain how many treatments you will have when you come for your consent appointment.

Your radiotherapy is delivered by therapy radiographers. We have both male and female radiographers. They are specially trained professionals.

Each day you will meet at least two radiographers. We are a teaching centre so student radiographers may also be present during your planning and treatment appointments. If you would prefer not to have a student present, please let a member of staff know. This will not affect your treatment or care.

If you are in doubt about anything or have any questions or problems, please let us know as soon as possible.

Pregnancy

It is extremely important that you are not pregnant or become pregnant during your radiotherapy. You must let the radiographers know at once if you think there is any possibility that you may be pregnant. If you wish to be sexually active during your radiotherapy, you must use an effective form of contraception.

Preparation for Treatment

Before you begin your treatment we must carefully plan it.

Depending on the area of your body we are treating, you may need to have an immobilisation shell made. The shell is often used if you are having your head, chest, spine or a limb (arm or leg) treated. It is important because:

- It enables your radiographers to give your treatment in exactly the same area each day.
- It helps to support the part of your body we are treating and keeps it from moving during treatment.

The shell is made for you in the **mould room**.

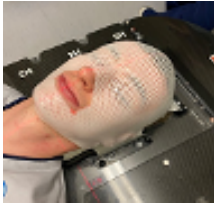
Mould Room

When you first arrive in the department, book in at the reception desk and they will explain where you need to go.

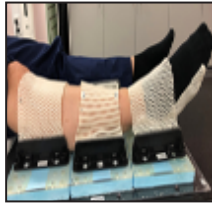
The mould room staff will warm a special sheet of plastic and mould it to the part of your body to be treated. The mould will then harden and set as it cools. The process of making the shell is completely painless and takes approximately 30 minutes.

If the shell is being made for treatment to your head, people with a beard are advised to shave it off before coming to the mould room.

Some examples of the shells are shown below -



Head shell



Limb shell



Chest shell

Planning your treatment - CT Simulator

When you first arrive in the department, book in at the reception desk and they will explain where you need to go. You will have a CT scan. This scan is used to plan your radiotherapy and there will be no results from it.

Everyone is a different shape and your planning scan is used to make a personalised treatment plan for you. Your radiographers will carry out the scan, explain the procedure to you and answer any questions you may have.



CT scanner

- Your radiographers will show you in to the scanning room and explain what will happen.
- You may need to remove some items of clothing. We will cover you whenever possible.
- We will help you into the correct position for your scan and treatment. If you are uncomfortable, let us know and we will do our best to make you more comfortable.
- If you had a shell made, you will wear it for this scan.
- It is very important that you stay as still as you can during this time and try to relax.
- Once you are in the correct position, we will place temporary pen marks and stickers on your skin or shell.
- The scan will take 2-3 minutes.
- When the scan is finished, we will need to make the marks on your skin permanent. We will give you some permanent marks called tattoos, which look like tiny freckles on your skin. These tattoos will be used every day to ensure you are in the correct position. If you have a shell, you may not need tattoos as the marks may be on your shell.
- This planning appointment will take about 40 minutes.

Contrast injection

You **may** need to have an injection of contrast (dye) that will help us to see the area we want to treat more clearly. Your doctor or radiographer will put a small hollow tube (cannula) into a vein. It is inserted using a fine needle which is removed once the cannula is in place. We will tape the cannula in place to keep it in position during the scan. We will inject the dye through this. It may feel a little cold but you should not feel any discomfort. You may also feel as though you need to or have passed urine, but this feeling will settle quickly. If you feel any discomfort or swelling during the injection please let your radiographers know immediately.

Some people can have an allergic reaction to the contrast. This is rare but we will ask some questions before beginning to ensure it is unlikely to happen to you. Your radiographers will keep a close check on you during the injection and scan, so if you feel anything unusual please tell us.

It is important to be well hydrated before you receive the contrast. This helps your body to get rid of the contrast after the scan. For the 48 hours before and after your appointment we advise you to:

- Try to drink at least 2 litres (4 pints) of fluid each day.
- Avoid caffeinated drinks - tea, coffee, energy drinks and some fizzy juices. Try decaffeinated options.
- Limit your alcohol intake.

Although you may need this dye for the CT planning scan, you will not need it for your treatment appointments.

MRI scan

Your doctor may request for you to have an MRI scan on the same day you attend for your CT scanning appointment. Your doctor or specialist radiographer will discuss this with you.



MRI scanner

You will lie in the same position as you did for your CT scan.

Preparation for pelvis/abdomen treatment

If you are having your pelvis or abdomen treated, it **may** be necessary to follow some instructions before your planning scan and treatment. You **may** have to fast (not eat) for 2 hours, drink water or a flavoured water before your appointment(s), or follow certain breathing instructions during the scan and treatment itself. Your doctor or radiographer will explain this to you in more detail if required.

Radiotherapy Treatment

The machine used to deliver your radiotherapy is called a linear accelerator or linac. Your appointment list will tell you which machine you are going to. Book into the reception when you arrive so the staff know you are here. The receptionist can direct you to the correct waiting area.



Linear accelerator

- Your radiographers will explain the treatment process to you before they start.
- You may be asked to remove some items of clothing. We will cover you whenever possible.
- You will lie in the same position you were in for your CT scan.
- If you had a shell made, you will wear it for every appointment.

- The lights are dimmed for a short time while we position you and the treatment machine. The machine moves around you but it will not touch you.
- We will leave the room to operate the machine, but we are monitoring you at all times on CCTV from outside the room. We can also speak to you through an intercom.
- We will take a scan to check your position before we start the treatment. You may feel the couch moving slightly while we do this. It can take a few minutes to look at this scan, but it is essential to ensure that you are treated accurately.
- The actual treatment only takes a few minutes and is painless.
- You should not feel any different immediately after your treatment is finished. If you have any questions or concerns please speak to your radiographers.
- Your radiographer will let you know how long your appointment will take, but as a guide it can be between 25 and 60 minutes.

If you have any questions please ask.

Effects of treatment - early and late

We treat each person as an individual and the effects of treatment may vary from one person to another. Your doctor and specialist radiographer will explain specific aspects of your treatment.

Potential side effects from radiotherapy depend on the area being treated. Early (acute) side effects occur during treatment or up to 12 weeks after completion. These are usually temporary and resolve fully. It is important to report any issues to your medical team, or to your GP if you have finished treatment. There may be something that can be done to improve your symptoms.

Late side effects can occur 3 months or more after your treatment has finished. Some of these effects may be long lasting or permanent, although these are uncommon.

Below is a list of some of the known side effects. **Please remember radiotherapy only affects the area being treated. You will not experience all of these effects.** Your doctor will discuss specific side effects with you individually.

☐ **Chest:**

- Dry cough
- Sore throat or painful / difficulty swallowing
- Heartburn
- Chest wall/rib pain- may feel like bruised or tender ribs
- Shortness of breath on exertion
- Tiredness (fatigue).

Late effects may occur including:

- New or persistent difficulties with swallowing
- Shortness of breath
- Cough
- Heart attack or fluid collection on the heart
- Nerve tingling/pain in the shoulder or down the arm/ hand (brachial plexopathy)
- Rib fracture
- Perforation (a small hole) in the large blood vessels in your chest
- Stenosis (a narrowing) of major airways and major blood vessels in your chest.

☐ **Abdomen (including liver):**

- Diarrhoea or cramping of the bowels
- Nausea
- Vomiting
- Reduced appetite
- Tiredness (fatigue)
- Discomfort or pain in the area treated e.g. stomach or liver
- Altered liver function blood tests
- Heartburn/acid reflux.

Late effects may occur including:

- Persistent cramping, diarrhoea or bleeding from the bowel
- Bleeding or perforation (hole) or fistula (abnormal connection between one organ and another organ)
- Radiation damage to the liver or kidneys.

☐ **Pelvis:**

- Diarrhoea or cramping of the bowels
- Discomfort or frequency of urination (can be helped by keeping up fluid intake to avoid infection or dehydration)
- Urinary or bowel incontinence
- Inability to pass urine (urethral obstruction) which may require catheterisation
- Bleeding from the bladder or bowel
- Vaginal bleeding or discomfort
- Nausea
- Tiredness (fatigue).

Late effects may occur including:

- Persistent cramping, diarrhoea or bleeding from the bowel
- Frequency or discomfort with urination or bleeding from the bladder
- Bleeding or perforation (hole) or fistula (abnormal connection between one organ and another organ) affecting bladder, bowel, rectum or vagina
- Damage to nerves affecting function of bowels, bladder or legs.

☐ **Bone:**

- Increased pain in the treated area
- Risk of broken bone
- Tiredness (fatigue).

☐ **Spine:**

- Tiredness (fatigue)
- Vertebral fracture and chronic pain
- Heartburn/reflux symptoms
- Discomfort on swallowing
- Nausea
- Spinal cord injury resulting in paraplegia (paralysis of legs and lower body).

Your doctor has recommended this treatment because they feel that the benefits of your radiotherapy treatment far outweigh any risks involved. However there is a small risk of serious side effects.

These may show up months to years after your treatment has finished. In very rare instances, some side effects can result in death.

A very rare but potential effect is that radiation can cause tumours. Although this is a serious possible consequence of your radiotherapy, it is important to bear in mind that it is extremely rare.

Your doctor or specialist radiographer will discuss any potential side effects with you.

Skin care

This treatment may cause skin irritation in the area being treated. It may make your skin red, dry, itchy or blistered. Some people describe it as being similar to sunburn. Follow these instructions during your radiotherapy and until any skin reaction settles:

- Wash your skin with lukewarm water and pat dry with a soft towel.
- Sometimes it is possible to use your own creams and lotions, but please check with your radiographers first.
- If part of your face or forehead is in the treatment area, avoid using make-up on this area.
- You can use your normal deodorant. If your skin becomes irritated and uncomfortable we may advise you to stop.
- Use an electric razor for hair removal in the treated area.
- Avoid sun exposure, swimming, saunas and jacuzzis.
- Do not use heat packs or ice packs to soothe the treated area.
- The area treated will always be more sensitive to the effects of the sun. When treatment has finished, we advise you use sunscreen with both UVA/UVB protection and minimum SPF 50.

General advice during treatment

There are some things you can do to help yourself:

- Try to continue normal daily activities.
- Gentle exercise and fresh air can help tiredness and mood.
- Drinking 1.5-2 litres of fluid a day helps to avoid dehydration and can help with tiredness.
- Small meals and snacks more regularly can help if your appetite is reduced or you feel nauseous.
- Try to get enough rest and sleep.
- Pace yourself, and if needed ask friends and family for help and support.

What do I do if I feel unwell?

It is important that you attend each appointment. If you manage to come for your radiotherapy but feel unwell, let your radiographers know as soon as you arrive. They can arrange for someone to see you. However, if you suddenly feel unwell and are unable to come for treatment, contact your GP and also let your treatment room know.

The treatment may at first make your symptoms slightly worse. However any symptoms that have developed because of the treatment will gradually settle down. If you feel they aren't improving 2-4 weeks after finishing your treatment, please contact your GP.

If you are unwell and have completed your treatment, you must contact your own GP. Please also see below for urgent symptoms, where contacting the Cancer Treatment Helpline may be more appropriate.

After Treatment Ends

Your doctor will arrange to see you at a follow-up appointment after your treatment is completed. They may wish you to have scans or tests prior to this appointment. They will send you information and appointment details.

Where can I Get Help?

Information and Support

All our staff are here to make sure your treatment goes as smoothly as possible and will try to help with any questions or problems you may have.

Further specialist help is available from:

- Consultant Radiographer - Karen Moore
☎ 0141 301 7421
- Specialist Radiographer - Alex McDonald
☎ 0141 301 7210

The Macmillan Information & Support Centre is on Level 1 at the main entrance of the Beatson. They offer emotional support, information and signposting to services within and near to The Beatson and in your own local area.

Open Monday to Friday 8:15am to 4:15pm.

Please visit or phone on ☎ 0141 301 7390.

The Beatson Cancer Centre has a **Radiotherapy Advice Line** available for patients who have completed treatment. This is an answer phone service, available Monday - Friday. Please leave your name, date of birth and telephone number and a radiographer will call you back as soon as possible.

☎ 0141 301 7432

The Cancer Centre also has a **Cancer Treatment Helpline** for urgent calls. This is for patients on or within 6 weeks of treatment who have **urgent or severe symptoms** such as:

- Shivering or flu-like symptoms.
- Temperature greater than 37.5°C.
- Gum/nose bleeds or unusual bruising.
- Worsening or sudden breathlessness.
- Leg weakness/difficulty walking.
- Severe nausea/vomiting/diarrhoea/constipation.

- Sudden increased or uncontrolled pain.
- Other concerning symptoms associated with your cancer treatment.

The line is available 24 hours for emergencies, although it would be helpful if you called early in the day if this is at all possible.

For Urgent Calls:

Beatson 8am-8pm ☎ 0141 301 7990

National 8pm-8am ☎ 0800 917 7711

Counselling and Clinical Psychology

This leaflet deals with the physical aspects of your treatment, but your emotional well-being is just as important to us. Being diagnosed with cancer can be a deeply distressing time for you and those closest to you. Within the department we have a counselling and clinical psychology service that can help with worries and difficulties you might be having. If you think this may be helpful to you, please ask staff to put you in touch.

- Macmillan Information Radiographer and Counsellor
☎ 0141 301 7423
- Information and Support Radiographer
☎ 0141 301 7427

There are also voluntary organisations providing information and support. These include:

- **Macmillan Cancer Support. ☎ 0808 808 0000**
🌐 www.macmillan.org.uk
Providing practical, medical, emotional and financial advice for those affected by cancer.
- **Maggie's Gartnavel: ☎ 0141 357 2269**
- **Maggie's Lanarkshire, Monklands Hospital**
☎ 01236 771199

- **Maggie's Forth Valley:** ☎ 01324 868 069

🌐 www.maggies.org

Maggie's Centre provides a comprehensive cancer support programme for people and their families affected by cancer.

- **Cancer Support Scotland - The Calman Centre, Gartnavel Complex.**

Freephone ☎ 0800 652 4531.

Provides emotional and practical support on a one-to-one basis and through community based groups.

Complementary therapies available.

🌐 www.cancersupportscotland.org

- **Macmillan Benefits Team**

Provides free and confidential financial advice for people affected by cancer and their carers. Please speak to your health care professional who can refer you.

- If you are interested in finding out about becoming more active, please visit:

🌐 www.nhsggc.org.uk/getactive

- **The Beatson West of Scotland Cancer Centre** - if you want to find out more about our Centre please visit

🌐 www.beatson.scot.nhs.uk

- **NHS 24** ☎ 111

Care Opinion

We welcome your comments and feedback about our service. If you would like to give us feedback please go to:

🌐 www.careopinion.org.uk or ☎ 0900 122 3135
or scan the QR code:

