

# Stereotactic Ablative Body Radiotherapy (SABR) for Oligometastatic Cancer

Information for patients

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## What is oligometastatic cancer?

When cancer spreads (*metastasises*) from its original (*primary*) site, it is called **metastatic**. For example, if someone's bowel (*colon*) cancer has spread to their lung, we would say they have **metastatic colon cancer**.

**Oligometastatic** means there are only a few, small new areas of cancer ("*oligo*" means little, or few). We would say someone has oligometastatic cancer if we can only see three or fewer new areas of cancer that we think have spread from the original (primary) site.

Most people who develop metastatic disease will not be cured of their cancer. The aim of treatment is to control the growth and spread of the disease and to help with symptoms. This may be with anti-cancer drugs (such as chemotherapy, immunotherapy or hormone treatment), short courses of radiotherapy or in some cases holding off on treatment until it is needed.

## What is SABR?

Radiotherapy is where we use high energy x-ray beams to treat cancer. **Stereotactic Ablative Body Radiotherapy (SABR)** is a newer method of delivering radiotherapy. It means we can treat small areas very precisely, allowing higher doses of radiotherapy to be delivered to the cancer, and smaller doses to your nearby organs and tissue.

There is some evidence that shows when people with oligometastatic disease have their new areas of cancer treated with SABR, their cancer is controlled for longer compared to those who don't. They may also have fewer side effects compared to people treated with "conventional" radiotherapy.

## **What does treatment with SABR involve?**

Once you agree that you would like to have SABR we will send you a list of appointments that will include all of your visits to the Edinburgh Cancer Centre for treatment. We will try to start your treatment as soon as possible.

### **Planning the treatment**

Your first visit is to have a 'planning' CT scan. This scan is used by the oncologists, radiographers and medical physicists to plan how SABR is delivered to the areas of cancer. This scan does not need to be seen by a radiologist, so you will not receive any results.

The planning scan is done in the radiotherapy department, next to our outpatient clinic area. You will need to report to reception, where you will be directed to the scanner. You will then have a CT scan which will focus on the areas where your cancer has spread.

- We may need to insert a needle into your arm or hand to inject a dye to make parts of your body clearer on the scan
- The radiographers will ask you to remove some of your clothes depending on the part of your body being scanned
- At the end of the scan, the radiographers will ask your permission to make small permanent dots on your skin using ink and a fine needle. These marks are about the size of a freckle and are used as a reference point to make sure you are in the same position for each day of your treatment
- The scan takes 20 – 30 minutes, however the entire visit to the department will take 1 – 2 hours

- If you are having cancer in your neck or upper chest treated, you may need to have a special mask fitted to ensure you are in the same position for each of your treatments. This uses a plastic which moulds to the shape of your head and neck. This takes approximately 1 hour.

Following this scan, your SABR treatment will be planned. This is a complex process which usually takes 2-3 weeks in order to be done properly and safely. You should expect to start your SABR treatment 3 weeks after your planning scan. The duration of treatment varies depending on where exactly the cancer being treated is located. It will likely last between 1 – 3 weeks, with treatment being given on alternate days, or in some cases daily. You will not usually need to be treated on weekends and it is not necessary for you to stay in hospital during the treatment.

### **What happens when I come for treatment?**

When you come for your treatment, you will be lying on the treatment couch in exactly the same position as you were for the CT scan. We will make sure you are as relaxed and comfortable as possible.

- The radiographers will then leave the room to start the treatment process. They will be watching you the whole time on a television screen. If you need help at any time, raise your hand and they will come in.
- Before each treatment starts the machine will rotate around you once. It is taking x-ray pictures to check that you are in the correct position for treatment. The radiographers compare these images with the planning CT scan and if necessary correct your position. You may feel the couch move; just try to stay as still and relaxed as possible

- Once you are in the correct position, the radiographers will switch the treatment machine on and the machine will move around you delivering your treatment. The machine will not touch you and you will not feel anything during the treatment. You will hear a buzzing noise when the machine is switched on and it switches off automatically when the treatment is finished.
- The whole process will take around 15 to 30 minutes. You shouldn't feel any different immediately after the treatment. The treatment does not make you radioactive and it is entirely safe to be around other people immediately afterwards.

## **What are the side-effects of SABR?**

Although SABR is generally very well-tolerated, we would expect you to experience some side effects during and after your treatment. The majority of these are temporary. Some require medications to help ease them, and some can be permanent, causing lasting problems. It is extremely rare for SABR to cause any life-threatening problems (less than 1% chance).

The side-effects associated with SABR will vary depending on what area of your body is being treated. However there are some more general side-effects we would expect to see regardless of what area of the body is being treated.

- **Tiredness:** You will probably start to feel tired towards the end of your treatment and this can last for up to 4 – 6 weeks after the treatment is complete. This will gradually improve by itself.
- **Skin reaction:** The area of skin where the radiotherapy beams pass through may become red and irritated. Use simple non-perfumed soaps when washing and let the team know if you develop a reaction. They will provide creams to use on the area.

The other side effects you may experience depend on what area of your body you are having treated. You will be looked after by a team of experts who are here to support you with these side-effects if they do develop. The following contains the most common side effects, but your oncologist will go over these with you in detail at your clinic appointment.

- **Spine (back):** if you have back pain, this can become worse during treatment. This is known as “pain flare”. We will give you a short course of steroids to take during your course of treatment to reduce the risk of this. There is a risk of weakening the bones in your spine, which can lead to stress fractures in the future. There is also a risk of causing damage to the nerves that travel down the spine.
- **Neck:** SABR may cause you to have a dry mouth, some difficulty swallowing, thickening of saliva/phlegm, and potentially increase the risk of dental problems in the future.
- **Lungs (chest):** in rare cases SABR can cause damage to your lung, causing breathlessness and a dry cough. In unusual severe cases this can make you unwell during treatment and for a small number of people result in permanent lung damage. It may also cause pain when swallowing, weakening of rib bones, and there is a very small risk of damage to the heart.
- **Abdomen (tummy):** you may experience mild to moderate nausea. In some cases SABR can cause diarrhoea, and abdominal cramps. There is a small long-term risk of damage to the bowel causing scarring or a leak from the bowel, and damage to nearby organs such as your kidneys and liver.

- **Pelvis (lower tummy and groin):** this may also cause short-term diarrhoea and bladder irritation, meaning you may have to go to the toilet more often during and in the period of time after your treatment. You may also experience some mild to moderate nausea. There is a small risk of permanent damage to your bladder and bowel, causing scarring or a leak.
- **Bones:** the side effects you see will depend on which bone is being treated, but in general radiotherapy to the bones can cause them to become weaker, and can increase the risk of them being broken if you were to injure yourself in the future. If you have pain in your bones because of the cancer, this can worsen during treatment. You may need to take painkillers or a short course of steroids to help with this.
- There is a very small risk of radiation treatment itself causing cancer, however if this does develop, it will do so several years after receiving treatment.

## What happens after treatment?

If you have any questions about your treatment or any side effects you are experiencing, call the SABR answer machine number on **0131 537 1068** (Monday - Friday, 9am - 5pm) and a member of the team will contact you. If you need more urgent advice you can call the **Cancer Treatment Helpline** number on **0800 917 7711** (available 24 hours a day, 7 days a week).

You will be seen by an oncologist 6 weeks after your treatment to check you are recovering from your treatment. Depending on your type of cancer, you may have a scan 12 weeks after your treatment to assess the effect. You will be seen in clinic to go over the results of this scan.

Your usual oncology team will also continue to see you. We are unable to treat the same area twice with SABR, but having this treatment does not stop you from having other treatments in the future such as chemotherapy or radiotherapy to elsewhere in your body.