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

Part of the NHS England Commissioning through Evaluation (CtE) programme

This information sheet will explain the background to SABR and will also explain the treatment process and possible side effects. Your doctor should have explained how the treatment is given and how many hospital visits you will need to make. Your doctor should also have explained the side effects that you may experience during and after your treatment, when you signed your consent for radiotherapy. If you need any further information regarding this, please let us know.

What is SABR?

SABR is a new type of radiotherapy. Radiotherapy uses X-rays to treat cancers. SABR allows the targeting of cancers with high accuracy and reduced radiation dose to surrounding normal areas. This means that a higher dose radiotherapy treatment can be given in relatively few sessions (typically 3-5 outpatient attendances). The aim of SABR is to completely destroy (or “ablate”) the treated tumour.

The potential benefits are:

- To reduce pain or other symptoms at the site of treatment
- To prevent further spread of cancer
- To delay the need for chemotherapy or hormone therapy
What is meant by “limited spread of cancer” and why is this important?

This means that your cancer has spread from its original location (metastasised), but is only visible at three or fewer sites on body scans. Current research suggests that people with this number of metastases may have some benefit from SABR.

What is the Commissioning Through Evaluation (CTE) programme?

The aim of the CTE programme is to provide patients with access to treatments not routinely available on the NHS. It is provided by NHS England, the body responsible for delivering new treatments in the NHS.

SABR for oligometastases is a relatively new treatment. Current research has shown promising benefit, and also that it can be given with relatively few side effects. This research includes information on hundreds of patients (mainly in Europe, the USA, and the Far East) who have been treated with SABR. However, there are no clinical trials comparing SABR with an established treatment. NHS England has provided funding for a limited time to allow assessment of whether SABR is beneficial to patients.

For this reason it is an essential part of the CTE process that we collect information on any side effects you may experience (this is done using questionnaires). It is also vital that we collect information on what happens with your cancer in the future (for example, scans and blood tests). This information will allow NHS England to decide whether to make SABR for oligometastases routinely available for NHS patients.

As part of this treatment, you and your doctor should agree that this information can be collected for a period of 2 years. It is the responsibility of the hospital where you are treated with SABR to collect this data. Therefore, if you return to your local hospital for follow up, this information may be collected by telephone. All information collected will be securely stored by NHS England and any data presented will always be anonymised.
What are the alternatives to SABR?

Alternative treatments include: surgery, chemotherapy or hormone therapy, and observation. Your doctor will discuss which (if any) of these treatments may also be suitable for you. Your doctor will also discuss the relative merits of these different approaches for you to consider and decide which is best for you.

What preparation is necessary for my treatment?

Radiotherapy machines delivering SABR treatment must be able to accurately determine the position of the tumour being treated. This may be done using external scans, but in some cases may require insertion of small markers into or around the tumour. The insertion itself requires a small operation.

Following marker insertion (if necessary), a radiotherapy CT planning scan is carried out as part of the preparation for radiotherapy. This CT (Computed Tomography) scan is only used to plan your radiotherapy and is not used for making a diagnosis. The scanner is a large doughnut shaped machine that produces x-rays. These can be used to give information about the structure and position of individual organs in your body. This information is used to produce an individual radiotherapy treatment plan for you. Some patients may also need an addition MRI (magnetic resonance) scan. This can provide more detail when planning, particularly for spinal treatments. In most cases, you will be positioned lying on your back. This position will be reproduced for your SABR treatment. You may have permanent reference marks (pin sized tattoos) on your skin.

At your first treatment visit, the radiographer will explain the treatment and answer any questions that you may have. The length of each treatment appointment is dependent on each individual patient’s treatment plan and will be confirmed on the first day.
The treatment itself

You will be alone in the radiotherapy treatment room while the machine moves around you and delivers treatment. The radiographers can see and hear you, using CCTV cameras and an intercom so that you can communicate with them if needed. It is important that you stay as still as possible during the treatment. You will not feel the treatment and nothing will come in contact with you during the treatment process.

Skin care during treatment

During your treatment you can continue to wash the area being treated:

• Use tepid water. Showering is ideal. Use mild, un-perfumed soap.

• Dab yourself dry with a soft towel and avoid rubbing the treatment area.

• If you enjoy swimming you can continue. Your costume or the chlorinated water may cause further irritation to your skin, so shower thoroughly afterwards.

• It is important to protect the treated area from exposure to the sun, during and after treatment by covering the area with clothing or using sunblock.

• You may be more comfortable wearing soft, loose clothing.

Skin dryness is common. You can moisturise the skin in the treatment area using either aqueous cream or E45 (if you are not sensitive to lanolin).
Side effects during treatment

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.

In general, current research shows side effects are uncommon. They may include the following:

Short-term side effects (usually settle within 6-8 weeks following treatment) which may affect over 20% of patients, and will depend on the area of your body that is treated:

Sore throat – you may experience this if you are having your neck or upper chest treated.

Nausea and vomiting – you may experience this if you are having your abdomen, pelvis, or lower spine treated. This can happen just a few hours after treatment or at any time during the treatment course.

Change in bowel habit – you may experience this if you are having your abdomen, pelvis, or lower spinal treated. Drinking plenty of liquid will replace lost fluids if this happens.

Increased pain – you may experience increased pain temporarily (<48 hours) in the area treated.

General tiredness – many patients feel generally tired while having radiotherapy.

Tell the radiographers if you experience any of these side effects or have any new symptoms. They will make sure that you receive the support and any medication you may need.
We recommend that you continue all your usual activities, as you are able. You may prefer to eat smaller meals more frequently. We suggest that you avoid rich, spicy and greasy foods. Side effects that occur as a result of radiotherapy may take several weeks to completely settle after the radiotherapy has been completed.

If you feel the side effects you are experiencing are more than anticipated, please contact your medical team for advice.

_Late side effects (may occur months to years after treatment):

These side-effects are rare, but may be permanent. Your doctors will discuss any side effects with you that are relevant to your treatment, and the risk of these happening.

**Bone fracture (break)** – this may occur when bony areas are treated and can cause pain, the commonest example being a rib fracture when a lung metastasis is treated.

**Liver and/or kidney damage** – this may occur for treatments in the abdominal region. It can be assessed using blood tests.

**Damage to bowel** – this may lead to a blockage in the bowel (gut) requiring an operation.

**Damage to nerves and spinal cord** – this is relevant to treatments of, or close to, the spine. We will be careful and keep the dose to these areas as low as possible while delivering an effective treatment.
**Additional information**

At the end of treatment you will be given an appointment for a follow up clinic. A doctor will see you to review the effects of the treatment. If the SABR treatment is not undertaken in your local oncology centre, you will have to decide if you want to have the follow-up visits at your local oncology centre or the SABR centre.

The information collected during this time will be stored anonymously and staff from NHS England and The National Institute for Health and Care Excellence (NICE). The database will functional for 3 years. At completion of the CtE programme, data from the database will be kept for no less than 5 years and at least 2 years post-publication for any further review and analysis that may be required. The exact period of data retention after the database completion will be stipulated by NHS England and NICE who will use it to make further decisions on how this treatment could be used in the future.

If you are unsure about anything please discuss it with the radiographers treating you. You can also call the hospital once your treatment is finished if you need advice.

**Our contact details:**