



Stereotactic Ablative Body Radiotherapy (SABR) to the Liver

Introduction

This information is for patients who are going to receive stereotactic ablative body radiotherapy (SABR) to their liver. Please read this leaflet alongside The Christie booklet 'Radiotherapy – A guide for patients and their carers'.

This leaflet will explain:

- what SABR is and what the benefits of this treatment are
- general information about the planning of your treatment
- general information about what happens on the day of your treatment
- general information about side effects of treatment
- who to contact when you need advice

What is SABR and what are the benefits of this treatment?

SABR to the liver involves the precise delivery of high dose radiotherapy. SABR is given over fewer treatment sessions than conventional/standard radiotherapy which increases the chances of controlling the tumour and reducing symptoms more effectively than standard radiotherapy.

Ensuring accuracy of treatment

To give accurate treatment we need to ensure that your liver is in the same position each day when you come for treatment planning and treatment delivery. The position of your liver is affected by many things; the two that have the most impact are breathing motion and the movement of the digestive tract.

- We have a device which attaches to the treatment couch and is then adjusted to create some pressure on your abdomen. This is to try to minimise the amount of movement of your liver caused by breathing motion. Using this device should not be painful and you will still be able to breathe freely.
- Filling and emptying of the stomach and digestive system can cause distortion (alteration of the original shape) of the liver. To minimise this we ask that you do not eat or drink anything immediately before having your scan or treatment. It is important that you have eaten on the day as prolonged fasting causes a build-up of gas. We ask you to eat breakfast as normal and then have a light lunch/snack 2 hours before your scan or treatment time which will be in the early afternoon.
- Just before your scan or treatment, we will give you a measured cup of water to drink. This will help us to see your liver better.

The planning of your treatment:

You will have 2 appointments in the radiotherapy department before actually starting the treatment.

At your first appointment:

- We will ask you to lie on a treatment couch in the position you will be treated in – this will be with your arms above your head resting on a board.
- We will take some images to see how much your liver is moving.
- Then we will fit the device over your abdomen and take some images of your breathing motion to ensure that the device is adequately limiting your motion.
- Following this you will have 2 CT scans in the same position with the device in position. You will be given a contrast injection to enable the doctor to see clearly the area of treatment.
- The first scan will be taken whilst holding your breath.
- The second scan will be taken whilst breathing normally.
- In order to reproduce your position for each treatment we would like to give you some permanent reference marks (pin sized tattoos) on your skin.

At your second appointment:

- This will be about 2 weeks after your first appointment.
- At this appointment we will carry out the final checks. The checks are performed for two reasons, firstly to ensure that you are comfortable in the treatment position and secondly to check the radiotherapy plan on the treatment machine.

Each of these appointments may take up to 2 hours. Please bring your regular medication with you. It may be beneficial to take painkillers 30 minutes before each session if you have pain.

When will I start my treatment?

Treatment will usually start within a few days after your second appointment. You will be given a list of treatment appointments when you attend for your CT planning scan.

What happens on the day of your treatment?

SABR is normally given over three or five treatments, usually on alternate working days. A team of radiographers, physicists and clinicians work together in the CT scanner and treatment rooms, and you may hear them sharing information and giving instructions relating to your treatment.

A scan of the area you are having treated will be taken before, after and sometimes during each treatment. These scans are purely to check that you are in the correct position and not to check how the tumour is responding to treatment.

You will be alone in the radiotherapy treatment room while the machine moves around you and delivers treatment. A closed circuit television on the control desk gives the radiographers a clear view of you and they will be watching you all the time. If you feel the need to cough or sneeze the radiographers will tell you beforehand how to let them know this. They will switch off the machine and come in immediately. You will not feel the treatment and it is important that you stay as still as possible during the treatment process. The treatment is normally given from a number of different directions (beams) depending on your individual treatment plan. Treatment can take between 30 and 60 minutes.

Side effects of treatment

As your treatment progresses you may experience some side effects or reactions. Not everyone will have all of these reactions. These are normal reactions and usually temporary. Please tell us if your symptoms are troublesome.

Short term side effects These usually settle within 6 - 8 weeks following treatment). They may affect over 20% of patients.

- **Nausea and vomiting:** this can happen just a few hours after treatment or at any time during the treatment course.
- **Change in bowel habit:** you may experience some changes in bowel habits such as diarrhoea. Drinking plenty of liquid will replace lost fluids if this happens.
- **Pain:** you may experience increased pain temporarily in the area treated.
- **Tiredness (fatigue):** you may feel more tired than usual for several weeks after your treatment has finished.
- **Skin reactions:** the skin where you are having the radiotherapy may change. Skin reactions can vary but the common symptoms are redness, dryness and itchiness.

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 that you may need.

Late side effects (may occur months to years after treatment).

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

- **Liver and or kidney damage:** this can be monitored using blood tests.
- **Damage to bowel:** this may lead to a blockage or perforation in the bowel (gut) requiring an operation.

Follow-up

You will be seen by your SABR consultant 4 - 6 weeks after your SABR treatment has finished. After this, you will not routinely be seen by your SABR consultant but will continue with follow-up appointments under your referring doctor.

Contact details:

- SABR radiographer
Michelle Bewley **0161 446 3000 (Bleep 12325)**
- Contacts (via your consultant's secretary):
Dr Vivek Misra **0161 446 3641**
Dr Lubna Bhatt **0161 446 8580**

If you need information in a different format, such as easy read, large print, BSL, braille, email, SMS text or other communication support, please tell your ward or clinic nurse.

We try to ensure that all our information given to patients is accurate, balanced and based on the most up-to-date scientific evidence. If you would like to have details about the sources used please contact **patient.information@christie.nhs.uk**

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