Sheffield Teaching Hospitals NHS
NHS Foundation Trust

Information for patients

SIRTEX Microsphere Treatment

smoke-free hospitals

Vascular Surgery

You have been given this leaflet because you may be suitable for the SIRTEX Microspheres treatment. This leaflet explains more about the treatment and answers some frequently asked questions. If, after reading this leaflet, you have any questions or concerns, you should write them down and discuss them at your next appointment with your consultant, or the radiologist. It is important that you understand the treatment procedure, along with the potential benefits and risks before you agree to it.

Your treatment will take place in the Sheffield Vascular Institute, based at the **Northern General Hospital**

The Sheffield Vascular Institute is one of the largest vascular centres in Europe. We specialise in the treatment of all circulatory conditions affecting the arteries, veins and lymphatics. If you wish to find out more about the Sheffield Vascular Institute then look under the Guide to services of the Sheffield Teaching Hospitals NHS Foundation Trust website (http://www.sth.org.uk)

What are Sirtex Microspheres?

SIRTEX Microspheres are millions of little resin "beads" The beads are tiny and can only be seen under a microscope. Each bead is smaller than the width of a human hair and contains a radioactive isotope which emits radiation that travels only a very short distance. This treatment is also called "Selective Internal Radiotherapy" (SIRT) or "Radio-embolisation" (RE).

How will this treatment work?

SIRTEX Microspheres are a new method of treating malignant liver tumours. Millions of the "beads" are injected into the artery that supplies the liver, and these are carried into the liver by the blood. When the beads arrive in the liver, the radiation emitted by them treats the tumour cells. The radiation lasts for a period of days, but the treatment effect on the tumour can last much longer.

Who can have Sirtex Microspheres?

This treatment is only suitable for patients who have malignant liver tumours. Sometimes the tumours come from the liver itself, or sometimes they have spread to the liver from elsewhere in the body e.g. colon or rectal cancer. A multi-disciplinary team of cancer specialists will assess your suitability for the microspheres treatment by looking at the results of a range of tests and scans.

What tests will I need to have?

You will need to have a Liver angiogram to ensure you are suitable to have the microspheres treatment and a nuclear medicine scan will be part of this procedure. You will also have a CT scan before and after the treatment

Will I have time to discuss the treatment?

The treatment will be discussed with you in the clinic with the Vascular Radiologist. There will also be further

opportunities for discussion on the day of the liver angiogram.

We must seek your consent for any procedure or treatment beforehand. Staff will explain the risks, benefits and alternatives where relevant before they ask for your consent. If you are unsure about any aspect of the procedure or treatment proposed, please do not hesitate to ask for more information.

Liver Angiogram

- A narrow plastic tube (catheter) is inserted into the blood vessel in your groin, after the skin has been numbed with local anaesthetic. Contrast is injected into the blood vessel that supplies your liver, to allow us to see the blood flow to your liver.
- Even if you have had this procedure before, you will need to have this one as it looks closely at the blood flow within your liver.
- During this angiogram, the radiology consultant will block off ("embolise") any vessels that he/she thinks might be necessary to ensure that the beads only go to the right place. There is very little risk associated with blocking off these tiny vessels, but it can sometimes cause mild pain for a few hours after the angiogram. You will be monitored in the hospital for at least 4 hours before you can go home.
- As part of the angiogram you will be given a small amount of radioactive material that will be seen on a nuclear medicine scan

- You will be transferred to the Nuclear Medicine department for the scan of your liver, after the angiogram. The scan is performed on a gamma camera and you will be asked to lie still for about 1 hour and 30 minutes.
- The camera comes close to you but does not touch you, someone will be with you at all times.
- This scan will be used to calculate the correct dose that you will need for your treatment.
- After the scan you will be moved back to the Angio day ward before you can go home.

Is there any activity I should avoid doing after the angiogram?

For 48hours you will be asked to avoid strenuous activity, gradually returning to normal activities after 1 week or so.

You should avoid driving for 1 week and avoid bathing for I week until the groin wound has healed. You will be given a detailed booklet "Discharge advice following a vascular radiology procedure" with more information on do's and don'ts.

CT Scan

- You will need two CT scans, the first one a few weeks before the treatment and another one approximately 6 weeks after the procedure
- The CT scan will be very similar to ones you have had before, but it does have to be performed in Sheffield.

What happens next?

You will be kept informed by the team as to whether your results mean you are suitable for this treatment. You will be asked to give your final consent to proceed when you are seen in the Vascular Radiology clinic.

Once this has been completed and you are happy to proceed, arrangements will be made for your treatment the dose will be ordered from abroad so that it is ready for the day of your treatment. You will also be given tablets to reduce your stomach acid.

Do I need to do anything before the treatment?

You will be asked not to eat or drink for 2 hours before your treatment.

You will be asked to take an anti-acid tablet daily from the day you had your Angiogram for 8 weeks

What happens on the treatment visit? Injection of the Microspheres

- One or two weeks after the liver angiogram, you will have a very similar procedure, during which the Microspheres will be injected into the liver via a catheter.

What happens after the treatment?

- You will stay in hospital after the procedure overnight or possibly for longer
- ***It is important to drink plenty of fluids following this procedure***
- You will have the nuclear medicine scan the day after the treatment, it will be a similar scan to the one you had after the liver angiogram
- **The range of the radiation given off inside the body is only 1-2 centimetres. Very little of the radiation will leave your body, but as a precaution you will be given a yellow card telling you what not to do when you leave hospital.**
- Specific times given to you will depend on the amount of radioactive material you are treated with. You will be asked to carry the card for 4 weeks
- You may have visitors but they should be over 18 and no one who is pregnant may visit.

Are there any side effects?

As with many treatments, you may experience side effects from the procedure, but not all patients will get them.

The most common side effects are:

- Fatigue - this is the commonest side effect. It is usually mild, but it can last for 4-6 weeks.
- Mild fever - can last from a few days to a week and usually does not cause concern
- Abdominal pain for a few hours after the procedure and sometimes several days. This will be controlled with painkiller tablets or injections.
- Nausea, usually mild and easily controlled with tablets.
- Diarrhoea, usually mild and not requiring treatment

If you do experience any side effects, they will be treated with medications during your stay and you will be given tablets to take at home.

Rarer Side Effects (less than 1 in 10 patients treated)

- If a few microspheres reach the stomach or intestine, they may cause symptoms of indigestion, gastritis or abdominal discomfort similar to having a stomach ulcer. To prevent this from happening, you will be asked to take an anti-ulcer treatment once daily from the day you have the liver angiogram for a minimum of 8 weeks.

Very rare Side Effects (less than 1 in 100 patients treated)

- Lung - if a few of the microspheres reach the lungs, you may experience some shortness of breath and a cough for 2-3 months after the treatment. This is very rare, but if it occurs, it may be treated with steroids tablets.
- Liver -radiation treatment to the liver may cause abnormalities of blood tests of liver function. This may appear weeks after the treatment. You will have regular blood tests to monitor your liver function. Should this occur, you may be treated with steroids or you may just be monitored until it subsides.
- Cholecystitis - inflammation of the gallbladder can result from the radiation, although this is very unusual. Normally this will resolve without treatment, but if it persists, it is possible to remove the gall bladder in an operation 2-3 months after the Microsphere treatment.

The potential long-term risk from these radiation doses is uncertain; however, as long as the radiation is confined to your liver, the side effects are usually mild. Any exposure to radiation has the potential for long-term damage such as scarring of the liver or a small risk of other malignancies developing many years later, but this risk is small and cannot be measured.

What if I need an interpreter?

Please contact us before your appointment if you need an interpreter, as we are not able to use members of your family as interpreters.

Training staff in the Hospital

Hospitals in Sheffield are teaching hospitals and we are involved in training staff. There will be students under training in the department who may be observing scans or carrying out the scans under supervision. Please inform us if you do not wish to have a student present.

Frequent questions:

I am going on holiday after my treatment
Radioactivity will remain in your body for a period after your treatment. There is a possibility that this will be picked up by the sensitive radiation detectors at some airports, train stations and seaports. This is no cause for concern, but we suggest that you carry the card you will be given, with you when travelling abroad during the months following your treatment.

What follow-up care will I need?
You will not need any special care after the scan or treatment and your oncology consultant will follow you up with regular blood tests and a follow-up CT scan performed 6 weeks after treatment.

Is there a weight limit on the scanner?
There is a weight limit on some of our equipment. Please contact the department if you weigh more than 180kg (28 stone).

Will I glow in the dark?
No. The radiation will be emitted from your body without you being aware of it.

Should I have any concerns relating to my religious beliefs?
If you feel that there are any aspects of your scan or treatment procedure that conflict with your religious beliefs, please let us know as soon as possible.

Where can I find more information?
If you need to know more about your appointments please contact the reception on the number given on your appointment letter

If you have any question about your clinical condition or this treatment, please contact your oncologist via switchboard (office hours) or on-call oncology registrar via switchboard (out-of-hours).

Switchboard (0114) 276 5000

Further information can be found on the following websites:

http://www.sirtex.com

http://guidance.nice.org.uk/IPG401

http://www.touchoncologicaldisease.com/emerging-synergy-between-radioembolisation-a7374-2.html

You may also like to view the Nuclear Medicine website at: www.sth.org.uk.

The hospital team responsible for this treatment consists of:

Dr Trevor Cleveland, Consultant in Vascular Radiology
Dr Jon Wadsley, Consultant in Clinical Oncology
Dr Jo Hornbuckle, Consultant in Medical Oncology
Ms Rachel Cottam, Superintendent Radiographer
Dr Eleanor Lorenz, Consultant in Radiology (Nuclear Medicine)
Ms Anna Hallam, Medical Physicist, Nuclear Medicine
Mrs Sally Walton, Chief Clinical Technologist, Nuclear Medicine

Contact details

For the Oncologist
Weston Park Hospital
Reception Tel: (0114) 276 5000

Angio day ward
Tel: (0114) 271 6972

Firth 2
Tel: (0114) 271 4602

Nuclear Medicine Department:
Northern General Hospital (0114) 271 4374
Royal Hallamshire Hospital (0114) 271 2779

Car parking: allow extra time before your appointment as parking is limited.

Northern General Hospital:
A number of pay-and-display car parks are available. However, these do get full quickly. Remember to bring some change to pay for parking.

Sheffield Teaching Hospitals operate a no smoking policy in and around all its premises

Sheffield Teaching Hospitals supports organ donation.

Do you?

organdonation.nhs.uk

This information can be made available on request in alternative formats including Braille, large print, audio, electronically and other languages. For further details email: **alternativeformats@sth.nhs.uk**

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