Stereotactic Radiotherapy (SRT) to the Brain

Information for patients

Northern Centre for Cancer Care

Freeman Hospital
Introduction

This leaflet provides general information about Stereotactic RadioTherapy (SRT) for the treatment of brain tumours (benign and malignant). If you have any further questions relating to your treatment, please do not hesitate to ask your stereotactic radiographer or your oncologist at the Northern Centre for Cancer Care (NCCC). Contact details are at the end of this leaflet.

Our team approach

Prior to offering you this treatment your case will have been discussed by a number of specialists in the multidisciplinary team. This will always include your oncologist (Who manages your primary tumour) and an oncologist who specialises in SRT treatment (this may be the same person for some patients). Other specialists who contribute to the discussions are neuro-surgeons, neuro-radiologists and a stereotactic radiographer who you will meet and who will keep you fully informed.

Your consultant oncologist will be in overall charge of your care, but you will meet many members of the team during your planning and treatment. We will all work together to give you the best possible care.

What is Stereotactic Radiotherapy (SRT)

Radiotherapy is the use of X-rays to treat tumours. It works by damaging tumour cells in a way that may stop them from growing or cause them to die.
Stereotactic Radiotherapy is an accurate way of delivering standard radiotherapy to lesions in the brain which usually allows more sparing of normal brain tissue during treatment.

**Stereotactic Radiotherapy (SRT) what does it involve?**

- **Pre-Treatment visits**
  Preparing for your treatment involves a number of steps. The first step may require you to have an additional Magnetic Resonance Imaging (MRI scan) to check the location and shape of the lesion(s) to be treated.

  You will then need to have a **special mask** (or mould) made that ensures your head is perfectly still for the planning and delivery of treatment. This will involve you visiting the Mould Room (See attached Mould Room information)

  Once your mask has been made you will have a Computerised tomography (CT scan) wearing the mask. This involves the radiographers or mould room technicians positioning the mask on you. You will then have a scan which is painless and will take about 15 minutes. The scan enables us to accurately define the shape of your head and complete the planning calculations.

  Sometimes we may need to give an injection with the CT scan; this is given into a vein in your hand or arm. The radiographers will discuss this with you if necessary.
It is important that we have both sets of images (Planning CT and MRI) to decide exactly where we need to target the SRT treatment.

Throughout this process the stereotactic radiographer will be present to answer any additional questions you may have.

- **Producing your treatment plan**

Before you commence your treatment, the SRT team will need to design an individual plan for you. They will use all of the information from your scans and tests. The neuro-radiologist and oncologist will identify the area that we need to target with treatment and will also identify important structures that we want to avoid treating (such as the eye nerves and the brain stem).

All of your information will be entered into a planning computer and the SRT team will then design your individual plan and select the best way to treat you.

- **When will I start my treatment?**

Treatment will start approximately 1-2 weeks after your planning visit. On rare occasions we may need to make small changes to your treatment plan. If this is necessary the start of treatment may be delayed slightly.

- **Treatment Preparation – Steroid Medication (Dexamethasone)**

In some occasions it may be a requirement that you need to take steroid medication during your treatment. This
depends on the location we are treating and the size of the
treatment area. Steroid medication prevents swelling. If
this is the case your Oncologist will discuss this with you
prior to you starting treatment.

Treatment delivery

When you arrive in the department a member of the SRT
team will come and greet you and explain the treatment to
you.

You will have your SRT treatment on a machine called a
linear accelerator. This is a type of x-ray machine. The
staff who operate these machines are called therapy
radiographers.

Your first appointment on the treatment unit will be a
longer appointment as we have checks we need to carry
out prior to treating you.

In the treatment room you will be asked to lie on the
treatment couch wearing your mask and a frame will be
placed over you. The frame has special markers placed on
it. It helps us to reproduce the same position as you were
when you had your planning CT scan.
You will feel the couch move as we place you in the
correct position. When the radiographers are confident of
the treatment set up, they will leave the room and the
treatment will start. You will be closely monitored on the
CCTV cameras at all times.

The machine will move around you at different intervals,
the radiographers may come into the room to re-position
the machine for different beams. They will keep you informed throughout the treatment of what is going on.

The treatment will take approx 20-30 minutes. It is painless and you should feel no different immediately after treatment delivery.

**Effects of Treatment**

**Immediately and up to one Month:**

You can go home straight after your treatments and take your steroids (if needed) as directed. You may feel tired so don’t over exert yourself.

- **Headaches:** This can be a side effect from the treatment and can be settled with simple pain killers (e.g. paracetamol) if this continues then contact us as occasionally patients may need steroids a little longer due to the swelling in the brain.

- **Seizures** (Fit): There is a small risk of this occurring after your SRT treatment. However, this is most common in patients who have had seizures in the past. If they occur we will be able to treat you for this without additional complications in most cases.

- **Hair loss:** Some patients who have lesions close to the surface of their brain can temporarily lose a small amount of hair over the treatment area.
Long term effects

Long term effects are possible depending on the location of the treatment area in the brain and the amount of radiotherapy required. Your specific long term possible effects will be discussed during your appointment for consent. Long term effects may include the risk of pituitary loss of hormone production (we can test for this and treat this), formation of cataracts (treatable with small operation) and minor memory effects. Generally the risk of long term effects will be less with SRT then other forms of radiotherapy.

Follow Up

You will then be referred back to your original team (if different from your SRT team) and will be followed up 4-6 weeks after completing treatment. If you are worried about any of your treatment side effects after completing treatment then you can phone one of the numbers listed below:

Useful contact telephone numbers:

Stereotactic Radiographer: 01912448718 (9.00am – 5.00pm)

After the treatment has finished contact the SRT team’s secretary:
0191 2138471 (9.00am-4.00pm)
If there is an urgent problem within the first week, then contact the wards at NCCC at any time on:

Ward 34: 0191 2137034
Ward 35: 0191 2137035

Alternatively call the Freeman Hospital main switchboard on 0191 233 6161 and ask to be put through to ward 34 or 35

Newcastle upon Tyne Hospitals NHS Trust:
Main switchboard: 0191 2336161
www.newcastle-hospitals.org.uk

Northern Centre for Cancer Care
Macmillan Information and Support Centre
Direct line: 0191 2138611 (voicemail service if out of hours)
Open Monday to Friday from 9.00am to 4.30pm

Macmillan Cancer Support
Freephone 0808 808 0000
www.macmillan.org.uk

Maggies Centre (Newcastle)
0191 2336600
e-mail newcastle@maggiescentres.org

The Patient Advice and Liaison Service (PALS)
Can offer on-the-spot advice and information about the NHS. You can contact them on freephone 0800 032 02 02 or e-mail northoftynepals@nhct.nhs.uk
If you would like further information about health conditions and treatment options, you may wish to visit the NHS Choices website at [www.nhs.uk](http://www.nhs.uk). On this website there is an information prescription generator [www.nhs.uk/ips](http://www.nhs.uk/ips) which brings together a wealth of approved patient information from the NHS and charity partners which you may find helpful.

For other support services, please use the following link to NCCC’s webpage in order to access a directory of support groups, organisations and useful contacts. [http://www.newcastle-hospitals.org.uk/services/cancer_more-support-for-you.aspx](http://www.newcastle-hospitals.org.uk/services/cancer_more-support-for-you.aspx)

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