The Shrewsbury and Telford Hospital NHS
NHS Trust

Radiotherapy Treatment of Brain Cancer

INTRODUCTION

Your Doctor has recommended that you receive a course of radiotherapy. This pack has been put together to back up the information and advice already passed onto you and will hopefully answer some of your questions. Take it home and dip into it when you feel you need to.

You may wish to share it with your family and friends, so that they can understand a little more about your treatment.

RADIOTHERAPY

What is Radiotherapy?

1. Radiotherapy treats cancer using high energy x-rays to destroy cancer cells, whilst causing the minimum amount of damage to normal cells.
2. Your radiotherapy will be very carefully planned using a plastic shell which you will wear during your treatment
3. Your treatment will be given by a team of Radiographers, who will help and support you if you have any problems. The Review Radiographer will also see you on a weekly basis to assess your side effects and offer advice.

How is it given?

Radiotherapy will be given to you over a number of weeks, usually as an out-patient, on a daily basis, Monday to Friday, with a rest at weekends.

What will I feel?

During your treatment you will not feel anything, or see anything. The actual treatment machine makes a high-pitched noise, and the treatment lasts for only a few minutes at each visit.

Will I experience any side effects?

You may get some side effects towards the end of your course of treatment; see separate. You will be seen regularly by the, Review Radiographer during your treatment and by the radiographers who will give you advice and support on a daily basis. A follow- up appointment

will be given at the end of your course of radiotherapy to see your Consultant Clinical Oncologist.

Will I be radioactive?
You will not be radioactive, and it is safe for you to be around other people and children.

How do I get to the hospital?
Friends and family often like to help. If there is a medical reason, then the hospital can arrange transport for you.

PREPERATION FOR RADIOTHERAPY

Prior to the start of your radiotherapy treatment, you will require a CT planning scan. The doctor, physicist and radiographers will use this scan to plan your radiotherapy treatment. The planning radiographer will contact you, normally via telephone, to arrange a date for you to come to the radiotherapy department to have this scan done.

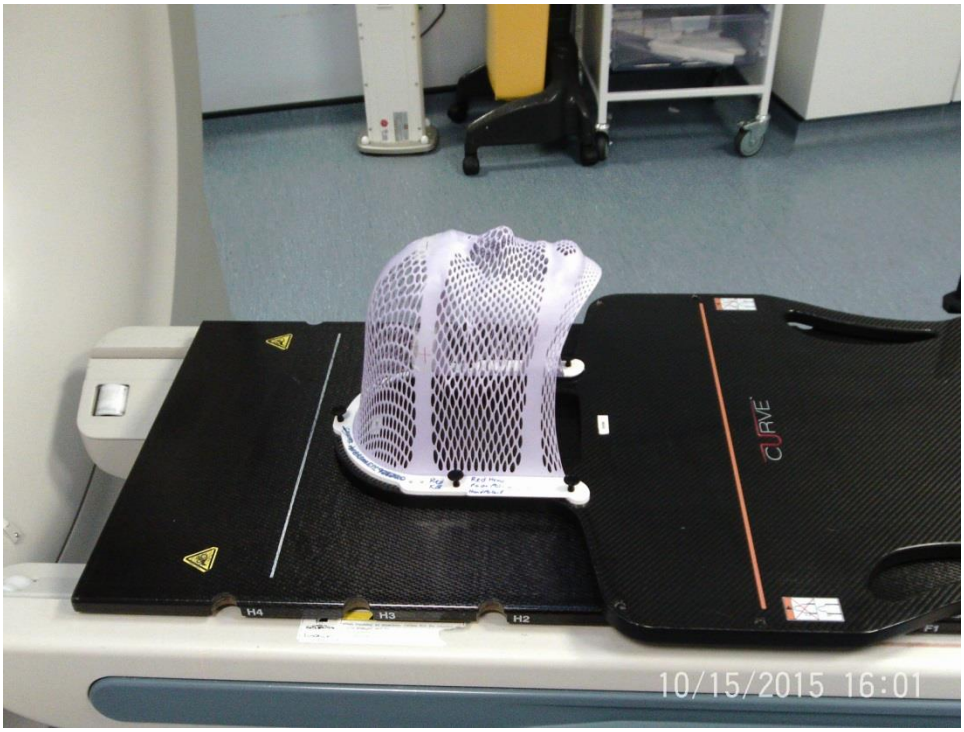
CT Planning

What is a CT scan?
A CT scanner takes images of your body using x-rays and processes them using a computer. The system uses several x-rays taken at different angles to produce detailed images of the inside of your body. We will use these images to plan your radiotherapy.

Radiotherapy is a very accurate treatment. To achieve the best results you will need to lie very still. This is especially important for treatment to the brain. To help you to keep your head still we will make you a "shell" which you will wear each time you attend for treatment

What is a Shell?

The shell is made from a plastic material and will cover the part of your body being treated and the surrounding area. The shell is covered in tiny holes so you will be able to breathe through your nose at all times.



How is the Shell made?

Once you are lying comfortably on the CT scanner bed, the radiographers will adjust your position to make sure you are nice and straight. A special piece of plastic will be placed into a hot water bath to soften and become flexible. Once it is ready, it is removed from the bath and placed over your face and head and attached to the bed. The plastic will feel warm, but it will not hurt. You may feel a pulling sensation across your nose and pressure being applied by the radiographers. It will take about 15minutes for the shell to cool and harden. During this time, the CT scan will be performed.

What happens during the scan?

You **may** require an injection of contrast media. CT contrast media is a colourless liquid, often referred to as a dye. It contains iodine and is used to make certain parts of your body more visible on the x-ray images. It is given by injection through a fine plastic tube called a cannula. The cannula is placed in your hand or arm using a small needle by a radiographer who is specially trained to do this. The contrast media flows through the bloodstream and is removed from the blood by the kidneys and liver.

If this is required you will need to have a blood test prior to the CT scan, you will be informed of this when you are contacted about the CT appointment.

Once the contrast media has been give the radiographers will do the CT scan. The scan itself is painless. The bed will move in and out of the scanner whilst the images are gathered. There will be no one in the room with you due to the radiation from the scanner. You will not be

radioactive after the scan. Once the scan is done, the radiographers will remove your shell and you will be free to go home.

Pregnancy and radiotherapy

All female patients of childbearing age (12-55 years old) will be asked prior to CT scanning and the first treatment of radiotherapy to confirm that they are not pregnant. If you are unsure or think that you may be pregnant then the procedure will not take place until pregnancy has been excluded by a negative pregnancy result. It may seem insensitive to ask, but law requires radiotherapy staff to exclude this possibility before proceeding with any procedure that uses radiation for treatment. These regulations are designed to protect the unborn child as radiotherapy may seriously affect their growth and development. You will be asked to sign a form to show that this question has been discussed. It is very important that you **are not** and **do not become** pregnant whilst undergoing radiotherapy planning and treatment. If you think you may be pregnant at any time during your course of treatment please tell your clinical oncologist or radiographer immediately.

RADIOTHERAPY TREATMENT

Your radiotherapy treatment will be carried out on a machine called a linear accelerator.

When you come into the treatment room, we will ask you to lie on the treatment couch and the radiographer's job will be to get you into the same position you were when you had your radiotherapy CT scan.

Once you are comfortable and lying straight the radiographers will move the bed closer to the treatment machine. We will then place the shell you had made onto your face and ensure that it fits correctly. This shell will be used each time you come for your radiotherapy treatment. The treatment shell may feel tight to ensure accuracy of the treatment, however if it feels uncomfortable, let the radiographers know. Once the shell is fitting, the radiographer will get you into position for your treatment.

Once you are in the correct position the machine will move around you. It will not touch you. Once the radiographers are happy, they will inform you that they are leaving the room and the treatment will begin. During the treatment the machine will move around you, the treatment radiographers will be watching you at all times, using the cameras in the room.

The radiotherapy treatment will not hurt and you will not feel a thing. You may hear the machine moving around you, or a buzzing noise when the machine is giving the treatment. Once the treatment has been given, the radiographers will come back into the room, remove the shell and you will be free to go home.

RADIOTHERAPY SIDE EFFECTS

It is important to remember that everyone is different, and the way you react to radiotherapy may be different to somebody else. Radiotherapy side effects normally start to occur about 2 weeks into the radiotherapy treatment and tend to peak about a week or two after the treatment has finished, before they start to improve.

If you have any side effects described below or any other problems, please inform the treatment radiographers. You will be seen weekly by our specialist review radiographer, who will be able to offer support and advice in dealing with these side effects.

If you are one any steroids or anti-seizure medication, these may need to be adjusted during you treatment to help manage these symptoms, but this will be discussed with you if needed.

Tiredness

Tiredness can occur as a result of the radiotherapy, as well as the travelling back and forwards for treatment. It is important that you listen to your body and rest as and when needed. Drink plenty of fluid and try and eat a nice balance diet. Evidence has also shown that mild exercise, such as going for a walk can also help with the tiredness that you may feel.

Hair Loss

Hair loss can occur where ever the radiation beam enters or exits the head. In some cases hair loss can be permanent, if your hair does return it may be thinner. Hair loss can sometimes be distressing for patients and referrals for a wig can be made by the NHS if you wish.

Skin Reaction

As your radiotherapy treatment progresses you may notice that you skin in the treatment area may become pink and tender. In some cases the skin can break down. We recommend the following advice in looking after you skin during treatment:

Skin care and reactions.

1. You should treat your skin in the treatment area gently. Wash with "Simple" soap. Use lukewarm water and gently pat the area dry using a soft towel. Do not rub. When washing your hair use a baby shampoo.
2. Apply moisturising creams onto the skin such as E45 up to three times a day, continue this throughout your treatment and for up to 4 weeks post treatment.
3. As you progress through your treatment, the skin in the area being treated may become slightly red and may darken towards the end of your treatment. The skin may even blister or break. The radiographers will give you advice about care of your skin if this happens.
4. During treatment do not use any heat produce such as a hair dryer, straighteners or curlers on your hair, as this can irritate the skin.
5. Protect your skin from the sun or cold winds during and after treatment. The treated area will always be more sensitive to sun and should be protected from sun light for several years after your radiotherapy using a high factor sun block, UV protective clothing or by sitting in the shade.
6. We do not recommend taking holidays in hot climates for at least six months after completion of your radiotherapy.
7. Wear loose clothing around the treatment area.

Headaches and Nausea

Radiotherapy can cause some slight swelling of the brain; this can sometimes cause pressure within the head, causing some nausea/ vomiting, headaches, and dizziness, changes in vision or limb weakness. If any of these side effects occur please let the radiographers know. Sometimes a change in the dose of your steroids or pain killers could help with these symptoms.

Seizures or Fits (epilepsy)

You may have already experienced these, but sometimes the radiotherapy can make these symptoms return, this is again due to some swelling of the brain. There are medications that can help with this so do let the radiographers or your clinical nurse specialist know, if any of these side effects occur.

Cognitive function

Radiotherapy to the brain can sometimes affect the way the brain functions or processes information. This may mean that you temporally find it difficult to remember things, solve problems, make decisions or learn new things. Again if any of these problems occur, please let us know as there are things that can be done to help.

At the end of your radiotherapy

Once you radiotherapy treatment has been completed, you will be continued to be followed up by the neuro-oncology team. Your first follow up with the oncologist will normally be around six weeks after the end of your treatment. This follow up will normally be to assess any side affects you may be experiencing following the completion of your radiotherapy. At this follow up appointment they may discuss any further scans or treatment.

FURTHER INFORMATION

More advice/information is available from your neuro-oncology team including your Cancer Nurse Specialist, the Radiographers and Review Radiographer during your radiotherapy treatment, the as well as the Chemotherapy team should you be having chemotherapy.

HELPFUL TELEPHONE NUMBERS

Ward 23, RSH	01743 261423
Radiotherapy Treatment	01743 261179
Review Radiographer	01743 261319
Hamar Centre	01743 261035
Macmillan Home Care Team	
Shrewsbury	01743 244222
Telford	01952 222609
Consultant Clinical Oncologists sec	01743 261000 ext 1106
Clinical Nurse Specialist	01743 492354

www.thebraintumourcharity.org/support-info