NHS
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Having radiotherapy treatment to the brain

Neuro Oncology

Patient information

What is this information about?

This information is about what to expect when you have radiotherapy treatment to your brain.

This information explains what radiotherapy is, how your treatment will be planned, and what to expect when your treatment starts. It also tells you about any early or late side effects that you may experience.

Why have I been given this information?

You have been given this information because your doctors have recommended that you have treatment using radiotherapy.

Please read this information carefully. It is important that you know what the treatment involves and what the possible side effects are. If you have any questions or concerns, please contact your clinical nurse specialist, your oncologist (specialist cancer doctor), or a radiographer. They will be able to offer you further information and support.

We will ask you to sign a consent form that confirms that you agree to receive this treatment.

Can I change my mind?

Yes. You can change your mind at any time, but it is best to complete a course of treatment once you have started. There is a risk that the radiotherapy would not work as well unless the full course is completed.

What is radiotherapy?

Radiotherapy is a type of radiation treatment using x-rays. The treatment is given using a machine called a linear accelerator or Tomotherapy.

The treatment is completely painless and takes 10 to 20 minutes.

Radiotherapy can be given alongside other treatments, such as chemotherapy. Our clinical oncology (radiotherapy) team will talk with you about what the aims of the radiotherapy treatment are.

How does radiotherapy work?

Radiation damages cells that grow and divide rapidly.
Only the cells in the part of the body that is being treated are affected. Modern treatment methods mean that we can avoid damaging normal cells as much as possible.

The healthy, normal cells can repair themselves. The aim is that the abnormal cancer cells die.

Planning your radiotherapy treatment

What is an immobilisation mask and how is it made?

Before you can begin a course of radiotherapy you will have an immobilisation mask made in the mould room. You will wear this during your treatment. This mask is made from a lightweight plastic, which is closely fitted around your face. This helps you to remain still and in the correct position.

You will be lying down while you are fitted for your mask.
You will need to take off:

- Your clothes on the top half of your body
- jewellery
- glasses
- hearing aids
- wigs or hair pieces
- removable prosthetics.

If you have a thick beard or moustache you may want to shave this off before the appointment to improve the fit of the mask. You do not have to do this if you do not want to, but we do recommend it as it means that the mask will fit tightly and accurately.

The mould room staff will give you information about what to expect and will explain what they are doing as they work.

What happens after the mask is made?

After the mask is made, we will do a 'planning' CT scan. Using this scan, we will design the radiotherapy treatment so that it is tailored to your body and cancer.

You will lie in the treatment position for this. It usually takes about 30 minutes. You may need to have an injection of special dye known as contrast to make some areas show up better on the scan. The CT radiographers will let you know if you need this.

The treatment will be planned specifically for you. This makes sure that the treatment area is accurately targeted with the least amount of normal tissues included. This planning can take some time to complete.

After your planning session, we will confirm a time and date to start the radiotherapy treatment. Your treatment start date will be the earliest time that we can safely get the treatment ready.

How often will I receive radiotherapy treatment?

You will receive your radiotherapy treatment every day, Monday to Friday (your treatment may not start on a Monday).

If your treatment is due during a bank holiday, you may need to be treated at the weekend. We will let you know if this is the case.

What happens during my radiotherapy treatment?

You will need to report to the receptionist in the Radiotherapy Department every day when you arrive. The receptionist will let the radiographers working on your machine know that you have arrived.

At each visit, the radiographers will take you into the treatment room and position you on the treatment couch as you were for the planning scan. The radiographers will explain what they need to do and may ask you to make small movements so that the mask fits well. When they are happy with the position, the staff will leave the room to deliver the treatment.

You will be alone in the room for a few minutes while the radiotherapy machine is switched on. The radiographers can see and hear you all the time when you are in the treatment room. If you have any problems, raise your hand, and they will come in to help you.

Some treatment machines have background music playing to help you feel more comfortable.

The radiotherapy machine will move around you but it will not touch you. Although you can hear a buzzing noise when the treatment is being delivered, you will not be able to feel anything happening.

Who will care for me during my treatment?

The radiographers who you see each day can give you advice if you have any problems. They can also contact someone from your oncology team for specialist advice.

There may be times when you feel anxious, depressed or generally more emotional. This is quite normal. If you feel you would like extra support, please ask for help.

What are the side effects of radiotherapy?

Side effects can happen during the treatment and last for a few weeks after the course is finished (early). They can also appear several months or years after the treatment (late).

Not everyone will have the same side effects, or at the same intensity. If you notice any changes, please tell the radiographers. They will give you advice or contact a doctor.

Early side effects (during and straight after your course of treatment)

- **Tiredness:** Fatigue (feeling tired) is common. The tiredness will slowly improve after your treatment has finished. Research shows that gentle exercise helps fatigue but take care and rest when you feel you need to. Speak to the radiographers if this is becoming a problem.
- **Skin reaction:** Your skin in the treatment field may become pink or, if you have more pigmented skin, it may become darker. You may develop dry and itchy skin. It is important to keep the area protected from the sun or cold winds by wearing a hat or cotton scarf.
- **Head hair loss:** Hair loss can happen about two to three weeks into treatment. This loss may be temporary or permanent. Your doctor will advise you if the lost hair is likely to re-grow or not. Please let your oncologist or nurse know if you would like information on wigs.
- **Headache and nausea (feeling sick):** Radiotherapy can cause swelling in the brain which can cause headaches and nausea. Please tell your radiographer, oncologist or specialist nurse if you have this so that they can review the medicine you are taking.

Other less common side-effects may happen, such as seizures, which will need advice from your oncology team.

Long term (late) side effects

These side effects can occur some months or years after completing treatment.

- **Skin:** The skin in the treatment area will always be more sensitive to the sun. It is best to use a high factor sun cream or sun block and cover the area if you are outside.
- Changes to your memory, thinking, reasoning, balance and mobility which can worsen over time.
- **Hormone changes:** If your treatment involves the pituitary gland or part of the brain called hypothalamus you may experience a decrease in hormone levels. This can cause irregular periods, fertility or sexual problems, constipation or severe tiredness. Your oncologist will let you know if this applies to you and will monitor your blood levels. You may need to see an endocrinologist (doctor who specialises in the thyroid).
- **Stroke (CVA):** there is a small increased risk of having strokes after radiotherapy to the brain.
- **Vision loss:** there is a small risk of damage to your eyesight after brain radiation.
- **Second malignancy:** The use of radiotherapy does carry a very small risk of causing a new different cancer in the treated area. This is something that rarely happens decades later.

Remember, these are possible side effects. You may not experience any, or only a few.

Can I drive while I am having radiotherapy treatment?

You must contact the DVLA and inform them of your diagnosis. Patients are not permitted to drive a car. If you drive a car, you are breaking the law and can be fined.

Who can I contact for more information and advice?

Sussex Cancer Centre Radiotherapy reception: 01273 664901

Eastbourne Radiotherapy Unit: 01273 938900

Macmillan Clinical Nurse Specialists:
uhsussex.neuro.oncology.nurses@nhs.net
01273 696955 Ext. 68466

For emergencies out of hours contact your GP or call NHS 111

Other useful information sources

Macmillan Cancer Support:
Call **0808 8080000** or visit **www.macmillan.org**

Cancer Research UK:
Call **0808 8004040** or visit **www.cancerresearch.org**

Macmillan Horizon Centre Brighton:
01273 468770
www.macmillan.org.uk/information-and-support/coping/getting-support/local-information-centres/horizon-centre.html

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