Oxford University Hospitals
NHS Foundation Trust

Radiotherapy to the brain – short course

Information for patients



Radiotherapy Department

Introduction

This leaflet is for people who have been recommended a short course of radiotherapy to the brain.

The **general radiotherapy leaflet** will explain what having the treatment involves, common side effects and some general information about the department. This leaflet – **Radiotherapy to the brain (short course)** will give you information of what to expect during your treatment.

This leaflet is intended as a guide because the timing and effects of treatment may vary from one person to another. It will highlight the key points of the discussions you will have had with your doctor and treatment team. Family members and friends may also find it helpful.

What is radiotherapy treatment?

Radiotherapy is a treatment that can be used to treat brain tumours with high energy X-rays. The radiotherapy machines (linear accelerators) target the X-rays at the brain tumour, destroying the cancer cells or slowing down their growth with the aim of causing as little damage as possible to the surrounding normal brain cells in the area.

The treatment is given in small doses called "fractions". The number of fractions you receive will depend on the course of treatment you will be having. Your individual treatment will be based on your condition. Your clinical oncologist (the doctor overseeing your radiotherapy treatment) will discuss this with you in more detail.

Radiotherapy for symptom relief

Radiotherapy can be given to treat symptoms that are causing you problems. This can be used for brain tumours that start in the brain (primary brain tumours), or cancers that have spread to the brain (secondary brain tumours – also known as brain metastases). These symptoms are caused when the growth of the tumour presses on nerves and surrounding tissues. The radiotherapy helps to relieve symptoms by controlling the growth of the tumour(s) and sometimes, the tumour(s) may shrink for a while. However, short course radiotherapy is a type of palliative treatment and will not be able to 'cure' the tumour(s). Short-course radiotherapy involves 5 to 15 treatments over 1 to 3 weeks. Each treatment will last for about 10 to 15 minutes. You will be able to go home after every treatment.

Prophylactic Cranial Irradiation (PCI)

Some patients with cancers such as lung cancer or leukaemia are offered radiotherapy to the brain to try and reduce the chance of the cancer spreading to the brain in the future. You will normally have this treatment over 2 to 3 weeks.

Radiotherapy planning

Before you start your course of radiotherapy you will be asked to attend the radiotherapy department for your radiotherapy planning appointment so the team can begin to prepare your treatment.

At the planning appointment you will go to the mould room, where we will make a plastic mask for you. The mask is individually made to fit you and needs to be worn at each stage of your radiotherapy planning and treatment. The mask will keep your head still during the radiotherapy treatments to make sure the treatment is delivered accurately to the area the doctor has planned to treat.

To make the mask, the therapeutic radiographer will warm a flat piece of plastic until soft and then lay it onto your head so it shapes to your face exactly. It may be a little warm but this process isn't uncomfortable. There are holes in the plastic so you can breathe comfortably. Once the plastic has cooled and hardened (which takes a few minutes) the radiographer takes it off. The mask is then ready to be used. Any marks to guide the therapeutic radiographer can be drawn on the mask.

The mask



You will then have a **planning CT scan**. This scan will provide accurate information for your radiotherapy team so that they can plan your treatment.

During these scans, you may need to have an injection of contrast (a type of dye) to help show up the tumour more clearly. If you have ever had an allergic reaction to dye given during a scan before, please let the radiographer know when you come to this appointment.

The planning CT scanner

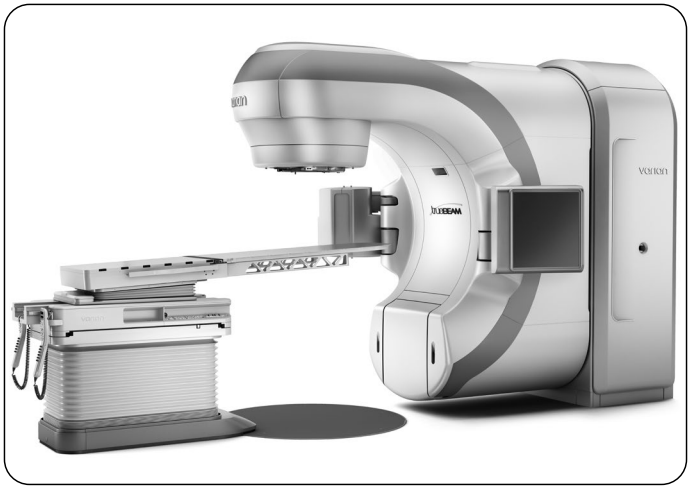


Treatment

On the first day of your radiotherapy treatment, a therapeutic radiographer will collect you from the waiting room and take you to a side room where there will be an opportunity for discussion before your treatment starts. We would encourage you to let us know about any particular problems or worries you may are experiencing so that we can best support you. During your treatment you will need to lie on your back on the treatment couch, wearing your mask.

The therapeutic radiographers will move the couch and the treatment machine into position. They will use lights lasers and X-ray equipment to position you accurately. Your treatment will be specific to you and may not be like the treatment of a fellow patient. The treatment machine may come close to you but it will not touch you.

The treatment machine



When you are in the correct position, the therapeutic radiographers will leave the room to start your treatment. The machine makes a buzzing noise when it is switched on. You will have to lie still and breathe normally. The team will be watching you on cameras from outside the treatment room. If you want them to come back in just raise your hand. You will not feel any pain or discomfort during treatment.

Possible short term side effects

Radiotherapy treatment is painless. However, there are some side effects which are associated with radiotherapy and you may notice one or more of them gradually developing over the course of treatment.

Please note that it is rare for one patient to experience all of these side effects.

If anything is worrying you, however small, during your treatment, please tell your therapeutic radiographer or radiotherapy specialist nurse, either at your visit or by phoning the radiotherapy department.

Tiredness (fatigue)

You may feel a build up of tiredness during your radiotherapy treatment and for a few weeks after the treatment has finished. This can often be made worse by a combination of other things, such as recovering from surgery, chemotherapy or other medications and travelling for hospital appointments. Patients often notice that this tiredness worsens and is at its most severe at around 6 to 8 weeks after finishing the treatment.

Tiredness is the most common side effect of radiotherapy. You can help yourself by keeping well hydrated and taking frequent rest. We encourage you to maintain a healthy, balanced diet and continue with your usual activities and light exercise if you are able. Please do tell us if you are experiencing tiredness or any other side effects. It will help us to provide you with the correct advice and support.

Skin reaction

Radiotherapy may cause the skin around the area being treated to become red, itchy and dry. Your treatment team can advise you on where this is likely to happen as they skin reaction can differ from person to person.

If you have had surgery to this area less than 6 weeks ago and your wound has not completely healed, we advise that you do not use any skincare products on this area at all.

If you have had surgery to this area more than 6 weeks ago and your wound is completely healed, you may wish to gently apply a moisturiser on this area to relieve the dryness or itching caused by your radiotherapy. We do not recommend you use any other skincare products on this area.

During your radiotherapy and until 3 months after your radiotherapy has finished:

Wash your hair with your normal shampoo and lukewarm water. Do not use hair dye or any styling products such as hairspray and avoid excessive heat from styling equipment such as hairdryers.

During your radiotherapy and in the future:

The skin in the area receiving radiotherapy will always be more sensitive to the sun, even many years after your treatment has finished. We recommend that you wear a hat or cover up in the sun and/or use a high factor sunscreen on the area. Do not apply sunscreen if you have had surgery in this area less than 6 weeks ago or if your surgical wound has not completely healed.

If you are taking chemotherapy alongside your radiotherapy treatment, the skin all over your body will be extremely sensitive to the sun. We recommend you use high factor sunscreen all over your body and stay out of the sun where possible during the course of your treatment.

It is very important that if you notice any discharge, swelling or redness at the site of your surgical wound, you tell your treatment team as soon as possible.

Hair loss

There is a possibility that you may lose some hair close to the area that is receiving the radiotherapy treatment.

Your doctor or therapeutic radiographer will explain where to expect some hair loss. Hair loss starts around 3 weeks after the start of radiotherapy. Any hair re-growth usually starts 4-5 months after you have finished treatment. It is unlikely you will have significant permanent hair loss, although hair regrowth after treatment may be patchy or a different colour or texture to the hair that was there before.

Your nurse or therapeutic radiographer can give you information on how to cope with hair loss after radiotherapy. You may wish to arrange to wear a wig and your team can help to organise this. Your team can also talk you through other options such as headscarves which you may like to consider.

Other side effects

You may have already experienced headaches, nausea and changes to your vision or limb weakness and you may have been given a course of dexamethasone (steroid) tablets to help these symptoms.

However, the radiotherapy may cause some of these symptoms to return or to become worse. This is because radiotherapy can cause some temporary swelling of the brain.

If you experience these side effects during the treatment then please tell your therapeutic radiographer or contact the oncology triage service outside of radiotherapy department opening hours.

They may arrange for you to see a doctor. Your medication may need to be adjusted to control these symptoms during your treatment.

Seizures

Radiotherapy can cause some swelling of the brain as the treatment works. If you have already experienced a seizure as a result of your brain tumour, radiotherapy may cause the return or increased frequency of seizures, even if they are being controlled by medication. If you have never had a seizure before, the swelling caused by radiotherapy may trigger one to happen. Your doctor, nurse or therapeutic radiographer can tell you if this is likely to happen.

Usually a seizure will last a few minutes and does not need emergency help. However if:

- the seizure lasts more than five minutes without any sign of slowing down
- the seizure is unusual in some way
- you have trouble breathing afterwards
- you are injured / in pain
- or recovery is different from usual

then call for emergency help – dial 999.

It may be helpful if you or someone with you is able to tell the doctors what you were doing just before the seizure began, what happened during the seizure, how long it lasted, and how quickly you recovered afterwards. You may wish to make family and friends aware that you might experience a seizure and let them know when they should call for emergency help.

Psychological Wellbeing

The radiotherapy team are here to support you with the psychological and emotional impact of your diagnosis and treatment.

A member of the team would be happy to chat to you about your emotional wellbeing at any time.

A list of resources to help support you and your family can be found at the end of this leaflet.

After treatment

4-6 weeks after completing your treatment you will be reviewed by your clinical oncologist or a member of their team. Radiotherapy takes time to work and so it is at this appointment your doctor will assess and discuss your progress and how you have been feeling since your treatment finished. Your doctor will also plan future appointments with you, if needed.

We ask that you speak with a member of the team before booking any kind of holiday or trip following your radiotherapy treatment so that you receive the appropriate advice.

If you have a brain tumour, or have had surgery to remove a tumour and you drive any type of vehicle; you must contact the DVLA and inform them of your diagnosis. The DVLA also has strict guidelines if you have suffered from seizures (fits) either before, during or after your radiotherapy treatment.

Failure to comply with these regulations is illegal and potentially dangerous; your insurance will be invalid and you may be fined up to £1,000.

The DVLA can be contacted at:

Website: **www.gov.uk/contact-the-dvla**

DVLA Driver's Medical Enquiries Helpline

Tel: **0300 790 6806**

By Post:

Driver's Medical Enquiries

DVLA
Swansea
SA99 1TU

Mobility:

Your radiotherapy team can help you to access the following schemes to help you get around.

- Access to work government programme – **www.gov.uk/access-to-work**
- Disability bus pass – apply to your local council
- Disabled persons railcard – **www.disabledpersons-railcard.co.uk**
- Blue parking badge – **www.gov.uk/apply-blue-badge**

How to contact us

If you have any queries **during** your radiotherapy treatment, please do not hesitate to contact us by telephone or speak to use when you come for treatment.

Radiotherapy Review Team

01865 235 465 (Oxford) Mon-Fri, 8am to 6:30pm
01865 220 680 (Swindon) Mon-Fri, 8:30am to 5pm
01865 857 570 (Milton Keynes) Mon-Fri, 8am to 4:30pm

Brain Tumour Senior Nurse Specialists

Tel: **01865 234 372**
Monday to Friday, 9:00am to 5:00pm – answer machine available outside of these hours)

Oxford Triage Assessment Unit

(24 hour helpline)
Tel: **01865 572 192**

For patients with brain metastases – contact your tumour site oncology nurse

Helpful Information

The Brain Tumour Charity

Website: **www.thebraintumourcharity.org**

Support & Information Helpline: **0808 8000 004**
Monday to Friday, 9:00am - 5:00pm

Email: **support@thebraintumourcharity.org**

Macmillan Cancer Support

Website: **www.macmillan.org.uk**

Support & Information Helpline: **0808 808 0000**
Monday to Friday, 9:00am - 8:00pm

Maggie's Centre at the Churchill Hospital

Located opposite the main entrance to the Cancer Centre.
No appointment needed.

Website: **www.maggies.org/**

Tel: **01865 751 882**

Email: **oxford@maggiescentres.org**

Further information

If you would like an interpreter, please speak to the department where you are being seen.

Please also tell them if you would like this information in another format, such as:

- Easy Read
- large print
- braille
- audio
- electronic
- another language.

We have tried to make the information in this leaflet meet your needs. If it does not meet your individual needs or situation, please speak to your healthcare team. They are happy to help.

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Oxford University Hospitals NHS Foundation Trust
www.ouh.nhs.uk/information

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charity@ouh.nhs.uk | 01865 743 444 | hospitalcharity.co.uk

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