Gloucestershire Hospitals NHS Foundation Trust

Patient Information

Radiotherapy for benign conditions

Contents

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Radiotherapy
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Patient Information

Introduction

It has been recommended that you have a course of radiotherapy for a benign (non-cancerous) condition. This leaflet gives you information about the planning, delivery and side effects that you may experience during and after treatment.

Please be aware that radiotherapy centres are training centres for doctors, nurses and radiographers. Students may be present in the department but they are supervised at all times. If you would prefer not to have students present during your treatment, please let a member of staff know.

You may find it useful to write down some questions before you start your treatment. A space is provided towards the back of this leaflet for you to do so.

What is radiotherapy?

Radiotherapy is the use of radiation to treat a disease, most commonly cancers, but can also be used to treat a small number of benign conditions such as Dupuytren's contracture, thyroid eye disease, heterotopic calcification, keloid scars, chondrocalcinosis and gynaecomastia.

Radiotherapy causes physical and chemical damage to the cells in the treated area which can stop the development of the cells causing the condition.

You may receive one single treatment, or the treatment may be divided evenly into a number of sessions (fractions), usually given during the week, with a rest at the weekend. Some departments work at weekends, or weekend treatments may be given around bank holidays or in the event of a machine breakdown.

The treatment delivered will be exactly the same every day and should take between 10 to 20 minutes. The number of sessions you have will depend on the disease you have been diagnosed with.

The radiotherapy will be delivered by a team of therapeutic radiographers, who will see you every day and can answer your questions about radiotherapy, as well as help look after you during your treatment.

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Planning your radiotherapy treatment

Before you can start your radiotherapy, your treatment needs to be planned. Everybody's treatment is planned individually to make sure that all of the area needing treatment is included and that other areas and organs are avoided as much as possible.

At your first clinic appointment with the oncologist, you will be asked to sign a consent form confirming that you wish to go ahead with the treatment. Your oncologist will explain any risks and answer any questions you may have about the treatment.

You may also have some non- permanent marks drawn on your skin. Do not worry if these marks fade as photographs will also be taken to help reproduce the area for treatment.

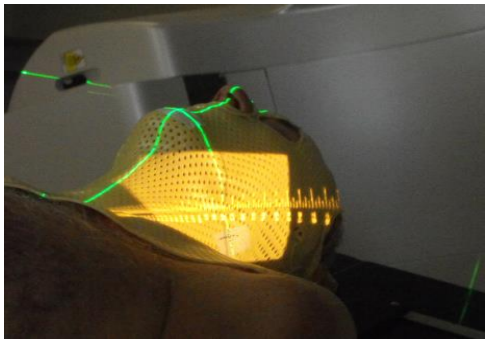
You will always be asked for your permission before any photographs are taken, and the images are protected by our confidentiality policy.

It is very important that we can target the radiotherapy as accurately as possible so it may be necessary for you to have a CT scan lying in the same position as for treatment. This will allow us to locate the area to be treated.

In addition to the non-permanent marks (temporary marks), the radiographers may mark the treatment area with black ink and a tiny pinprick using a sterile needle. This leaves a permanent mark no bigger than a freckle. The mark is used to help the radiographers position you each day and allows them to reproduce your treatment accurately.

It may be necessary for a mask to be made to help you keep your head still or to shield sensitive areas of your face. Your radiotherapy doctor or a radiographer will explain this to you if it is needed.

Depending on the treatment area, you might have lead shielding made for you. This is to protect nearby areas of the body from radiation.

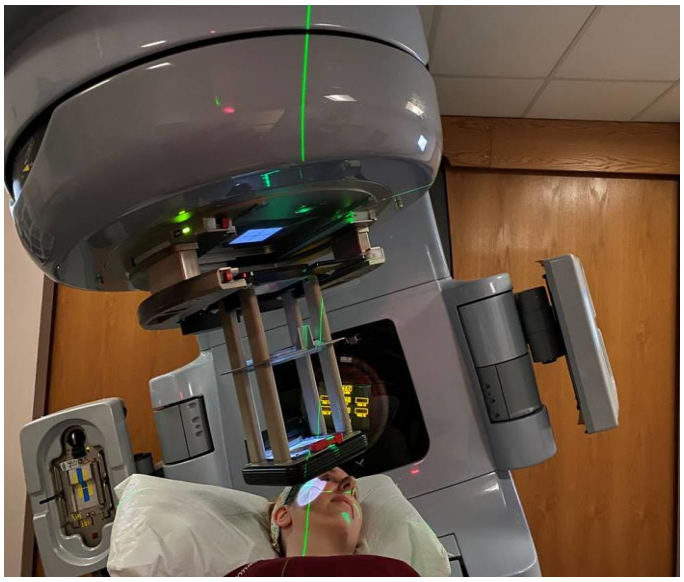


For example, if you are having an area on your face treated, your radiographer or mould room technician might make a lead shield to protect your eyes or other sensitive areas.

Once the area has been marked up, you will be contacted at home with a date and time to start the treatment.

Having your treatment

The first day of treatment is usually a little longer than the others, as the team carry out extra checks to make sure everything is correct.



You will be asked to lie on the treatment couch in the same position as you were when the treatment was planned. You will be asked to keep still and breathe normally.

The radiographers will help you get into the right position and put on any moulds or shields that you might need. They will use the photographs and measurements to get you in the correct position.

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If you need to wear a mask, they will put this on, which is then clipped to the bed in the same way as when you were scanned. Your mask may be a little tighter than it was originally as it can shrink slightly as it sets in the days after it was made.

If you feel you need to come out of the mask at any time, just wave your hand.

Once you are in the correct position, the radiographers will check some measurements and then leave the room, where they will operate the machine from outside. The radiographers will be watching you on a closed-circuit TV monitor (CCTV).

Treatment only takes a few minutes. You will not be able to see or feel the radiotherapy as it is not painful. The machine may make a buzzing sound. Please remember to stay still at all times so that your treatment is given in the right place.

Over the course of your treatment, images (scans or x-rays) may be taken regularly to confirm your position, and to evaluate any potential weight loss or change in shape that may affect your treatment plan.

Radiotherapy does not make you radioactive. It is perfectly safe to be with other people, including children throughout your course of treatment.

Please note that the treatment machines in your department may look slightly different to the ones in the pictures in this leaflet.

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Side effects

The majority of side-effects from radiotherapy are predictable, expected and temporary (short term side effects), while other side-effects can be chronic (long term). Everyone's healing is different so you may find you experience some or all of these symptoms. Likewise, you may recover very quickly or it may take a while longer.

Radiotherapy is a localised treatment so only the area that is to be treated will be affected. For example, hair loss will not occur unless there is hair in the treated area. Your doctor and radiographers will advise you about the side effects that may occur during your treatment, and how to manage them.

Side-effects do not appear suddenly, but develop over a period of time. Your side-effects may get worse 10 to14 days after your treatment has finished and then will slowly settle over the following few weeks.

You should be able to continue your usual activities or work throughout your treatment, but may feel a little more tired than normal. We suggest you try to eat a well-balanced, healthy diet and drink plenty of fluids during your course of radiotherapy, as this may help your body to cope with the effects of the treatment.

Skin reaction

You may notice that the skin becomes red and sore in the treatment area, and may feel itchy. To help minimise this, here are a few tips:

- Wash the area gently with warm water and your usual soap then pat dry with a soft towel. Do not rub.
- Wear loose fitting cotton clothing next to the skin.
- Moisturise the area using your own moisturiser or if you are buying a new product, one which is Sodium Lauryl Sulphate free. Avoid moisturising areas where there are any scabs or areas that bleed.
- Avoid using make-up, perfume or talcum powder in the treatment area.
- Protect the skin from sun or cold wind by covering the area with clothing/accessories where possible.
- Avoid scratching the treatment area.

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- Avoid wet shaving if possible.
- Avoid using a hairdryer (if the scalp is being treated).

If the area needing radiotherapy is close to your eyes, they may become sore and dry but your sight should not be affected. There is however, a small risk of cataract formation in later life.

If the treatment area is close to your nose, you may get some crusting inside the nose and experience some bleeding from the nostril. This will be temporary.

If the treatment area is close to your lip, a small area of the lining of the mouth will get sore or may crack and blister. It may also bleed a little, but this will settle in a couple of weeks.

If you have radiotherapy to a part of the body that has hair, you may have some hair loss. The hair will start to grow back some time after treatment has finished.

Any side-effects you experience will be monitored regularly by a radiographer who can give you advice on how to manage them. Please report any symptoms that cause you discomfort. Side effects are expected, but medication can be prescribed that will ease your discomfort.

After radiotherapy

At the end of your course of treatment, the radiotherapy staff will advise you about continuing skin care, as the treatment will continue to work for 10 to 14 days.

Most reactions should be starting to settle within a month of the treatment finishing. Again, this could differ depending on your skin type and area treated. You will be given the contact details of the department or radiographer review team if you have any concerns about healing after treatment.

The area of skin treated will be more sensitive than usual for at least a year after radiotherapy. Be careful in the sun and use a sun screen of SPF 50 or above – wear a wide brimmed hat if the facial area was treated.

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Although all patients are glad to have finished their course of radiotherapy, it is quite normal to feel anxious as to what happens next. Please do not feel abandoned; if at any time between appointments you are concerned about anything, please contact your radiotherapy department or GP. They will be able to discuss any concerns you may have and make an earlier follow up appointment if necessary. If you need urgent help out of normal working hours, please contact **NHS 111** for advice.

Follow up

You will be sent details of a follow-up appointment with your oncologist. This may be several weeks or even up to 3 months after your treatment has finished. This will vary according to the area you have had treated and the consultant caring for you.

Long term side effects

The skin in the treated area may look paler than the surrounding skin and feel quite thin and papery. Sometimes the skin may develop superficial thread veins in the treated area. There is a small risk of cartilage damage if the area treated is near the nose or the ear. Scarring from radiotherapy is usually mild. Over time, scars tend to fade.

A very rare but potential side effect is that radiation can cause tumours. Although this is a serious possible risk of your radiotherapy, it is important to bear in mind that the effect is very rare. If it does happen it is likely to be many years after treatment.

What can be treated?

The most common benign conditions treated by radiotherapy are:

- Dupuytren's Contracture
- Thyroid Eye Disease
- Heterotopic Ossification
- Keloid Scars
- Chondrocalcinosis
- Gynaecomastia

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Dupuytren's contracture

Dupuytren's is a benign condition of the hands. It often presents as dimpling, thickening or tenderness of the palms of your hands and as it develops small lumps, called nodules, can form. It can affect one or both of the hands and mainly affects the third, fourth and fifth fingers. Over time the thickening can harden, causing your finger to curl inwards. It can make it difficult to straighten the finger and affect simple activities such as shaking hands.

Radiotherapy can soften tissue affected by early-stage Dupuytren's in order to slow, stop or reverse the progression of the condition. Radiotherapy treatment is generally offered if the disease has been getting noticeably worse over 6 to 12 months.

Treatment for Dupuytren's contracture is often given in 2 blocks of 5 treatments (10 in total) with a 6 to12 week gap in between. Alternatively, 7 treatments can be given every other day over the space of 15 days. Your consultant will discuss with you which is the best option for you.

Thyroid eye disease

Thyroid eye disease is a benign condition that causes the fat and muscles behind and around the eyes to become swollen. This causes the affected eye to be pushed forward. It occurs in people who develop either an overactive or underactive thyroid gland.

The radiotherapy dose needed to treat thyroid eye disease is much lower than the doses needed to treat cancer and is usually highly effective.

You will need to wear a mask for the treatment each day to make sure the treatment is targeted accurately.

The skin in the treatment area is likely to become dry and red. The radiographers will advise you of what products to use on your skin. Your eyes may feel sticky in the mornings and gritty during the day. You may feel some stiffness of the muscles that move your eye. In severe cases, this can cause a squint to develop. There may be some disturbance of your vision if there is pressure on the optic nerve. Let your radiographers know if you are in any discomfort.

Ten treatments are given, every day Monday to Friday.

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Heterotopic ossification

Heterotopic ossification is a benign condition that happens when bone starts to develop outside of the skeleton. It often occurs following surgery or trauma to a bone or joint.

It can be corrected with surgery and then a low dose of radiotherapy is given to prevent it from coming back. Radiotherapy is effective in preventing extra bone growth by not allowing the cells to grow and divide.

Treatment is usually done within 24 to 48 hours following your surgery and just one single treatment in necessary. Before receiving your treatment, you will need to have a CT scan and measurements taken. This CT scan is repeated after your surgery. These scans are used to help plan your treatment.

Keloid scars

A keloid scar is an enlarged, raised scar that can be pink, red, skin-coloured or darker than the surrounding skin.

They can develop after very minor skin damage, such as an acne spot or a piercing, and spread beyond the original area of skin damage. Keloid scars are more common on the upper chest, shoulders, head and neck but can happen anywhere. Anyone can get a keloid scar but they are more common in people with dark skin, such as people from Africa and African-Caribbean and south Indian communities. Younger people between the ages of 10 to 30 are more likely to develop them.

Keloid scars can last for years, and sometimes do not form until months or years after the initial injury.

Radiotherapy is used to treat keloid scars usually after surgery to remove most of the raised area. It has been shown to prevent keloids from coming back. Although there is a risk that the scar may grow back and become larger than before.

Usually, 2 treatments are given over 8 days with the first dose given within 24 hours of surgery. It may also be given in a single treatment 24 to 48 hours after surgery.

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Chondrocalcinosis

Chondrocalcinosis (also known as pseudogout or calcium pyrocalcium pyrophosphate deposition disease – CPDD) is a rheumatologic disorder resulting from the build-up of calcium crystals in the connective tissues (tissue that connects, supports, binds, or separates other tissues or organs). The knee and hip joints are the most commonly affected. The cause is largely unknown. It often does not cause any discomfort but in some cases can cause osteoarthritis or gout-like symptoms.

Radiotherapy is given in a single treatment, which may be given soon after a surgical procedure.

Gynaecomastia

This is a common condition that causes male breast tissue to swell and become larger than normal. It is most common in teenage boys and older men. It can be caused by an imbalance between testosterone and oestrogen in the body. If testosterone levels drop or oestrogen levels rise, this can cause breast tissue to grow. Sometimes, the cause of this imbalance is unknown but can often be a side effect of medications used for heart disease or prostate cancer.

Swelling can happen in either breast or both breasts and may be painful. It starts as fatty tissue, but can develop into thicker (dense) tissue.

Radiotherapy is given in a single treatment and can be to one or both breasts.

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Questions

Please use the space below to make a note of any questions you may wish to ask.

Further information

The QR codes above and below will direct you to further resources relating to your radiotherapy treatment. You can use your smartphone camera to scan the codes.

Macmillan - Understanding Radiotherapy
Website: www.macmillan.org.uk/cancer-information-and-support/stories-and-media/booklets/understanding-radiotherapy

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The Society and College of Radiographers - Radiotherapy Skin Reactions
Website: www.sor.org/getmedia/e091da21-6dc8-47fb-9e08-094a0cb3135e/5056_-_sor_design_doc_a_patient_infosheet_-_skin_care_a5_leaflet_llv2-1_2.pdf

Further support will be available locally.

Your data

All personal images and photographs taken during your radiotherapy will be used in accordance with the local Trust policy on the protection and use of patient information.

To read more about Gloucestershire Hospitals NHS Foundation Trust's 'Privacy notice', please visit:

www.gloshospitals.nhs.uk/privacy-notice/

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Making a choice

Shared Decision Making

If you are asked to make a choice, you may have lots of questions that you want to ask. You may also want to talk over your options with your family or friends. It can help to write a list of the questions you want answered and take it to your appointment.

Ask 3 Questions

To begin with, try to make sure you get the answers to three key questions if you are asked to make a choice about your healthcare.

1. What are my options?
2. What are the pros and cons of each option for me?
3. How do I get support to help me make a decision that is right for me?

These resources have been adapted with kind permission from the MAGIC Programme, supported by the Health Foundation

* Ask 3 Questions is based on Shepherd HL, et al. Three questions that patients can ask to improve the quality of information physicians give about treatment options: A cross-over trial. Patient Education and Counselling, 2011;84: 379-85

AQuA Advancing Quality Alliance · Right Care Shared Decision Making Programme · NHS

https://aqua.nhs.uk/resources/shared-decision-making-case-studies/