

If you have any questions concerning your treatment please contact:

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Tel:0191 5699755

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The Haematology Specialist Nurse Faye Armstrong  
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### Useful websites

[www.nhs.uk](http://www.nhs.uk)  
[www.sunderland.nhs.uk/chs](http://www.sunderland.nhs.uk/chs)

This information was correct at the time of printing. While the Trust makes every reasonable effort to keep its information leaflets up to date, very recent changes may not yet be reflected in the guidance and you should discuss this with the clinical staff at the time of your appointment.

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## RADIOTHERAPY

### A GUIDE FOR PATIENTS AND THEIR FAMILIES



Haematology Department

Sunderland Royal Hospital

Questions	Answers

This booklet will provide you with a general introduction to Radiotherapy. If you would like more detailed information about your own treatment, please ask the staff.

**What is radiotherapy?**

Radiotherapy is the use of exact, carefully measured doses of radiation to treat diseases. It is used to treat a wide variety of conditions including cancer, thyroid disorders, some blood disorders and certain types of arthritis.

Most patients having radiotherapy are treated using a high-energy beam of X-rays delivered by a machine called a linear accelerator, to the precise area affected by your illness. The rays are used only to treat the tumour and a small surrounding area.

While not all machines look alike, they all work in a similar way. In fact, these machines are just more powerful versions of the x-ray machines that are used to take pictures of chests, broken bones and so on.

Radiotherapy is often given in several small doses over a specified period of days or weeks, but may be given in a single treatment.

Therapy radiographers operate the radiotherapy machines. They are neither doctors nor nurses, but specially trained practitioners.

**Your first visit to the department.**

The medical specialist who will look after you is a **clinical oncologist**. He or she will examine you and may arrange for tests such as X-rays, scans and blood tests. These are to check your general health and to help decide on the details of your treatment.

A team of doctors, consultants, registrars and senior house officers will care for you. This team will not necessarily include the doctor who saw you first of all, but one consultant will be responsible for your treatment.

In choosing your treatment, your doctor has carefully considered the nature of your illness and your particular needs. Once treatment has been agreed with your clinical oncologist, treatment can begin and we will send you an appointment for treatment preparation.

The preparation for treatment takes some time, in some cases it may take up to two weeks or more. It is time well spent, as the treatment is being tailored to your particular needs.

### Consent to treatment

The doctors, clinic nurses and specialist radiographers will normally give you some written information to support what they have said about your treatment. At the time your treatment is being planned, you will have a further opportunity to discuss anything that you do not understand, or any anxieties you may have, before you actually start.

For some radiotherapy treatments, you may be asked to sign a consent form agreeing to accept the treatment that you are being offered. The basis of the agreement is that you have had the written description of the proposed treatment and that you have been given an opportunity to discuss any concerns.

### Treatment preparation

Treatment preparation may be done on a special X-ray machine called a simulator or on a CT scanner. Often, marks are put on your skin with a special pen so that X-rays can be focused accurately. The marks may rub off a little onto clothing. Do not worry too much if they do, they will wash out, but it might be sensible to wear older clothing.

The radiographers will explain how you can keep the treated area clean and will tell you when you can wash the marks off. During the preparation stage the marks may be visible if you are having your head, neck or chest treated so you may want to bring a scarf with you

### CancerBACUP

CancerBACUP is a national cancer information charity which runs a cancer information service. The cancer support service freephone number is **0808 800 1234** (or **020 7613 2121** for charged calls).

Calls are answered by specially trained cancer nurses who can give you information on all aspects of cancer and its treatment.

Cancer BACUP also publishes booklets which are free to patients, their families and carers. You can get a copy by ringing the freephone number or writing to:

Cancer BACKUP, 3 Bath Place,  
Rivington Street, London EC2A 3JR

The information is on their website: [www.cancerbacup.org.uk](http://www.cancerbacup.org.uk)

### CancerBACUP booklets include:

- Over 55 booklets on specific cancers, for example, Bladder, Cervix, Lung and Prostate.
- Understanding cancer treatments, such as understanding radiotherapy and understanding chemotherapy.
- Booklets on living with cancer, some of these are listed below:

Who can ever understand? Talking about your cancer.

Lost for words: how to talk to someone with cancer.

What do I tell the children?

Coping with hair loss.

Cancer and Complementary Therapies.

Please note:

Mobile phones can interfere with the treatment equipment. Please look out for signs letting you know if it is safe to use your mobile phone. If you do have one with you may need to turn it off.

- Drink plenty of fluids – for example, water, tea, cool drinks, milk. Take nourishing fluids such as Complan or Build-up, if your appetite is poor. Some special meal replacement drinks are available on prescription, ask the Dietitian or your GP for more information.

#### **For more information....**

**You may have particular queries that are not answered here. Please do not hesitate to ask the staff.**

#### **Relatives and carers**

Please share this booklet with your family and friends. It is important that they feel well informed and understand what is happening. Families and carers can have a role in helping you. There are also videos on radiotherapy, which you can take home to watch. Please ask your doctor, a radiographer or the ward staff.

#### **After care**

After you have finished your treatment you will be told the arrangements for your first follow-up visit to an outpatient clinic. This visit is for the clinical oncologist to see how the treatment is working and how any side effects are settling down. Most patients continue to be followed up at an outpatient clinic for several years.

Some people go back to the NCCT for their follow-up visits. Other people go back to a hospital near their home, where they will usually see a visiting NCCT doctor. It may be possible to choose the arrangement that suits you and your family.

If you have any problems before you are due for your first visit back to the hospital, ask your family doctor for advice. If you were an inpatient you could also ring up your ward at the NCCT and speak to a senior nurse. If you have any problems after your first outpatient visit, contact your family doctor straight away rather than wait for your next appointment. Your doctor may want to arrange an earlier one.

Once the treatment is started, tiny permanent marks are made on the skin. The pen marks will gradually fade away.

#### **Mould preparation**

It is sometimes necessary to make a plastic mould to fit the treated area (head, neck or hand). The mould helps us to ensure that the treatment is delivered accurately each day. Treatment marks are put on the mould, so it is not normally necessary to put marks on your skin. As part of the preparation for the mould, you will need to attend the hospital several times before your treatment can start. The number of visits depends on the type of mould you are having. Different types of moulds are used for various treatments and the Mould Room staff will explain the procedure when you come for your first visit.

#### **Your treatment**

On the day of your first treatment, you will come to the radiotherapy department. You may have already visited this department as part of the preparation for treatment and met some of the therapy radiographers.

The radiographers will be giving you the precise treatment prescribed by the doctor. They will explain to you what is going to happen before they take you into the treatment room. The Northern Centre for Cancer Treatment (NCCT) is a training hospital so you may meet male and female students in the radiotherapy department who may be involved in the delivery of your treatment.

You may be asked to change in a cubicle or to remove or loosen any clothing that covers the area being treated. The radiographer will help you onto the treatment bed and will then adjust both the bed and the machine to the exact positions that are needed. They will try and make you comfortable as you will be asked to keep as still as possible for a few minutes during treatment.

The radiotherapy machines are quite big and if you have never seen them before, you might feel anxious. But there is no need to worry, the treatment is absolutely painless. It is just like having an X-ray picture taken. The treatment will only last a few minutes. The treatment session however, may take about 15 minutes, allowing time for changing and the machine to be set up.

The therapy radiographers operate the machines from outside the room. When all the adjustments have been made, they will leave the room while you have your treatment. It is the only time you will be left alone, but even then, the radiographers will be watching you carefully on a closed circuit television system. If for any reason you need them, just wave your hand to them and they will interrupt the treatment and come in to you immediately.

Some people are worried that they will be completely enclosed by the machine, **this will not happen**. The overhead section of the machine can rotate, but nothing will press down on you. Most machines make a buzzing noise when they are operating. This is how you will know when the treatment is happening.

After a few minutes your treatment will be over for that day. This routine will go on each working day until your course of treatment is finished. The prescribed radiation dose and the number of days over which it is given varies between patients.

Normally there is no radiotherapy treatment on Saturdays and Sundays and this is taken into account when your treatment is planned. The radiographer will give you information about who to contact if you have any problems during treatment.

Your treatment appointment time may vary from day to day for a variety of reasons. Please discuss this with the therapy radiographers on your treatment unit.

### What can the staff do to help?

It is part of the staff's job to help you through any side effects you may have. If you feel uncomfortable in any way, do mention it to the doctor, the nurses or the radiographers. They all want you to be as comfortable as possible.

**Please remember, do not hesitate to ask the staff if you have any problems or concerns, however trivial these may seem.**

### What can you do to help?

- Do not use any creams, moisturisers, make-up, deodorants, perfumed soap or talcum powder on the part of your skin which is being treated. Men should not use pre-electric or aftershave, if they are having treatment to the face or neck. Johnson's baby products and Simple soap are safe to use. Keep on using unperfumed toiletries while your skin is sore.
- Wash the treated skin gently with warm water and pat dry with a soft towel.
- As far as clothing is concerned, wear something loose and comfortable. Cotton is best next to the treated skin, better than man-made material.
- Men who are having part of their head, face or neck treated will be advised not to wet shave. Check this with the staff when you come in to hospital. Please remember to bring an electric razor with you.
- Keep the area of the skin that has been treated away from direct heat, such as sunlamps, hairdryers and direct sunlight. You should take extra care of your skin during treatment and as long as this reaction lasts. Your skin may always be more sensitive, so you may need to take care in the sun, even after your treatment has finished. You can use high protection factor sun cream on the treated area.

**Nausea:**

This also depends on which part of the body has been treated. If you do experience sickness please tell the radiographers, you may be prescribed medication.

**Tiredness:**

You may feel a sense of fatigue or have less energy during and after your course of treatment, just as you would when recovering from an operation. You can help yourself by taking time to rest and relax. Do rest before you get tired. Do not be afraid of asking family and friends for help. Some patients find that it helps to have a short rest each day after having their treatment.

**Difficulty with swallowing:**

Radiotherapy to the head and neck area or upper chest can cause a temporary difficulty with swallowing. Tell your radiographer if you are having problems, you may need medicine to help with this.

**Stiffness of joints and muscles:**

Radiotherapy can cause tightness of muscles and stiffness of joints. There may also be swelling and soreness in the treated area during and immediately after your course of treatment.

**Late or permanent reactions:**

It is possible for some types of reaction to occur months or years after the treatment has finished, although this is less common these days because of recent improvements in treatment.

Your doctor at the NCCT will discuss any possible late effects with you, and give you further written information about them if they are at all likely to occur.

**Some questions about treatments****Will it hurt?**

No. You will feel no pain at all while you are actually having your treatment.

**How does it actually work?**

Our bodies are made up of cells and all cells have the capacity to divide. If radiation hits a cell that is dividing, it will be damaged. Cancer cells are much less able than normal cells to repair the damage, so more of the cancer cells will be destroyed.

**Will I lose my hair?**

Not unless your head is being treated. You may lose body hair in the area being treated and this hair loss can sometimes begin during and after treatment, but it usually starts to grow back some time after treatment is finished. Wigs are available through the hospital, if needed. Loss of hair happens more often with chemotherapy (drug treatment) and even then, it does grow back.

**Is it safe?**

Uncontrolled radiation can be dangerous but radiation used in medical treatment is given in controlled, carefully measured doses. The aim is to treat the illness without harming the patient.

**Will I be radioactive?**

**No.** Patients treated by x-rays do not become radioactive. The radiation does not stay in your body after treatment, so you cannot do anyone else any harm. It is perfectly safe for you to mix with other people. However as some people are treated with radioactive substances on the ward, there may be some restriction on visiting patients on the ward.

Pregnant woman should always check with the ward sister before entering the ward. For the same reason, children are not encouraged to visit the wards.

### **I already have problems with my health. Will radiotherapy treatment make them worse?**

No, but some health problems such as diabetes need to be monitored more closely during radiotherapy. Ask your doctor if you are worried about any other health problems.

### **If I have to stay in hospital can I go home for the weekend?**

Yes, if your doctor thinks that you are well enough, but you must make your own transport arrangements to go home and come back to hospital.

### **As an inpatient, when will I have my treatment?**

The radiographers will give you a leaflet on your first appointment at the radiotherapy department, explaining how many treatments you will have and the date of your last treatment. Unfortunately, they cannot always give you an exact appointment time for the next day's treatment, but you will be told whether this will be in the morning or afternoon. They will give you an appointment time whenever possible.

If you have a morning appointment please stay on the ward until after your treatment, but if you have an afternoon appointment you may leave the ward in the morning. You must check with your ward sister first.

### **Can I be treated as an outpatient?**

Yes, if you live within travelling distance, if your doctor thinks you are well enough and if you can provide your own transport. Some people continue to work, but you may find it difficult to go out to work, run the home and cope with treatment as well. After daily travel and treatment, you will almost certainly feel tired and need to rest. Space in the waiting area is limited; please only bring one person with you.

You may be entitled to help with travel costs. Ask at the Post Office or local DSS for leaflet HC1 'Help with health costs'. Other financial help may be available through your local social work department.

### **Can I be treated early on a Friday?**

No, unfortunately we cannot guarantee this, as other patients would like an early appointment too. If this is going to cause you serious difficulty, please speak to the radiographer.

If you are being treated as an outpatient, you will have to pay for your prescriptions unless you are exempt. If you think you will need more than five items in the next four months, you will find it cheaper to buy a season ticket. Ask for details at the pharmacy.

### **Side effects from treatment**

Side effects from radiotherapy vary. Some people have hardly any side effects, even though radiation is a strong treatment. Any side effects you will get depend on which part of your body is treated and on the number of treatments you have. Even people who have had very similar treatments can have different side effects.

You will probably notice the side effects during the second half of your course of treatment. These may well continue after you have finished your treatment, but they should gradually fade over the first 4-6 weeks.

During your course of chemotherapy, one of the doctors, nurses or research radiographers on the team looking after you will see you regularly.

The following are some of the side effects you **may** experience:

#### **Sore skin:**

The skin can become red or sore in the treatment area. Some people describe the soreness as being like sunburn. This will depend partly on the type of machine that you are treated on. Ask the radiographers for advice, as it is easier to minimise any reaction if we look after the skin early on.