



## Information for patients having Prophylactic Cranial Irradiation (PCI): precautionary radiotherapy to the brain

### Introduction

This leaflet is for people who have been recommended treatment with a short course of radiotherapy to the brain. It is intended as a guide because the timing and effects of treatment vary from one person to another.

Radiotherapy to the brain has been proved to prevent the cancer spreading to the brain (metastases). It improves survival for most patients with **small cell lung cancer**. This is called prophylactic cranial irradiation (PCI). The treatment uses high energy x-rays and is painless.

### What are the benefits of this treatment?

The aim of the treatment is to prevent spread of the cancer to the brain. Clinical trials have shown that PCI significantly reduces the risk of developing symptomatic brain metastases. Your doctor will explain the benefits to you in more detail and ask you to sign a consent form agreeing to have the treatment.

### Agreeing to treatment

#### Consent

We will ask you 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 Christie's written description of the proposed treatment and that you have been given an opportunity to discuss any concerns. You are entitled to request a second opinion from another doctor who specialises in treating this cancer. You can ask your own consultant or your GP to refer you. Your consent may be withdrawn at any time before or during this treatment. Should you decide to withdraw your consent then a member of your treating team will discuss the possible consequences with you.

### Are there any alternatives to this treatment?

This is the only method of lowering the risk of the cancer spreading to the brain. We recommend that you have this treatment but the decision is yours. If you do not want to have radiotherapy to the brain please discuss your concerns with us.

### Things you need to know before you come for treatment

- If you need ambulance transport for your first visit, please phone the transport liaison office at the hospital you are attending for advice and bookings as soon as you get your appointment. Contact The Christie on: **0161 446 8114** or **8143**, The Christie at Salford on: **0161 918 7800** or The Christie at Oldham on: **0161 918 7700**.
- If you have transport problems once you have started treatment, please also contact the transport office of the hospital you are attending.

- If you are feeling too unwell to come for your treatment, please contact us as soon as possible before your appointment. Call The Christie on: **0161 446 3485**, The Christie at Oldham on: **0161 918 7700** or The Christie at Salford on: **0161 918 7800**.
- You are welcome to bring one friend or relative with you to The Christie. It is better not to bring children.
- Please remember to bring all your painkillers so that you can take a dose if needed while you are at The Christie. Remember to bring your quick acting painkillers if you are taking these. It also helps staff to give you advice if they know exactly what you are taking.
- The Christie staff will do their best to help you get into a comfortable position for treatment, but this does involve getting on and off quite hard beds. If you have bad pain on movement, please ask for help from your GP, district nurse or Macmillan nurse **BEFORE** your visit to The Christie so they can try to control the pain better.

### **Treatment planning**

We plan your treatment carefully to make sure the x-rays are targeted accurately. You need to keep your head still during treatment, so you will have a mask made for you to wear during your daily treatment. The mask will keep your head still so that the treatment is given to exactly the same area each time.

This is made from a soft mesh which is warmed and moulded to fit you. It feels like having a warm towel put onto your skin. After a few minutes the mask cools and hardens. Many people, especially if they are a bit claustrophobic, worry about having a mask made. Please be reassured, most people cope very well. If you wish, you can ask to see a complementary therapist to help you relax.

Your treatment will be planned using a CT (computerised tomography) scanner. The scans which are undertaken to plan your radiotherapy are solely aimed to give enough information to plan the radiotherapy accurately. These scans are not diagnostic and therefore do not give sufficient information to assess the status of your cancer or any other abnormalities.

For the CT scan you will need to wear the mask that has been made for you. You will be asked to lie on the couch and the radiographers will move you into position. The couch will move slowly through the open scanner and back, you will not feel anything and nothing will touch you. The radiographer will put marks on the mask with a felt-tipped pen to indicate the treatment area. The process takes about 15 to 20 minutes.

**During the procedure we ask that you remain as still as possible and breathe normally.**

### **The treatment**

You will have your treatment in exactly the same position as when it was planned, using a machine called a linear accelerator. The radiographers will move the couch and treatment machine into position. The treatment machine may come close to you but it will not touch you. The machine will then move around you to enable the treatment to take place at different angles. Each area takes from one to three minutes to treat and you will have the same areas treated each day. You will be in the treatment room about 10-15 minutes. The treatment itself will only take a few minutes. You will not feel any discomfort – it is just like having an ordinary x-ray.

**It is important that you keep still throughout your treatment and breathe normally.**

The radiographers will leave the room to switch the machine on. You will be alone in the room during treatment, but don't worry as the radiographers are close by and will watch you closely on monitors. If you need help the radiographers will give you instructions of what to do, such as raising your arm to signal to them. Then the machine will be switched off and the radiographers will return to the room to assist you.

## Side effects

Radiotherapy treatment is painless however there can be some side-effects and you may notice one or more of them gradually developing over the course of the treatment.

### Skin reaction

Most people develop a skin reaction in the area being treated. The area may become red, dry, itchy and may begin to peel. For further information please ask a member of staff for a copy of 'Skincare during and after your radiotherapy treatment'.

The skin in the treated area will always be more sensitive after treatment and will need protecting from the sun or cold winds by wearing a hat or cotton scarf. It is important to use a high factor sun cream factor 30+ or sun block in the future.

### Hair loss

This will happen gradually up to 8 weeks after the start of radiotherapy. If you do experience hair loss, your hair may re-grow but it may be thinner and not the same colour and texture. The time it takes to grow back will vary for each person. If you would like an appointment with the wig service, this can be arranged for you by visiting the cancer information centre or call **0161 446 8100**. Ask the staff for a copy of the 'Wig Fitting Service' information leaflet. The Maggie's Centre runs a Talking Heads hair loss support workshop for anyone who is anticipating or experiencing hair loss (both men and women). These sessions cover the practicalities of hair loss as well as offering support with its emotional impact. Contact Maggie's on **0161 641 4848** or email: **manchester@maggiescentres.org**

### Headaches and nausea

We may prescribe a steroid medicine called dexamethasone to help treat this. If we do, **remember to carry your 'steroid card'** which has directions about taking dexamethasone. If you are taking dexamethasone you will be given guidance about reducing the dose slowly. You can also take painkillers to help you, such as paracetamol. Please ask your radiographer or ward nurse for advice. Your doctor can also prescribe anti-sickness tablets.

### Fatigue

As treatment progresses you may feel tired and develop fatigue which may last for several weeks after treatment. This is a tiredness which is not entirely relieved by resting and can make physical activity difficult. Some of the things that can contribute to fatigue are:

- travelling to the hospital for treatment
- change to your daily routine
- change to your eating habits
- dehydration
- reduced physical activity
- interrupted sleep
- emotions - like feeling low in mood and isolated

Even so, it is beneficial for your health to take gentle exercise as well as ensuring you rest.

### **Drowsiness (somnolence)**

This may occur after the treatment has ended. It is usually mild. This period of tiredness sometimes gets worse around 4-6 weeks after treatment and will then gradually improve.

### **You should not drive if you feel drowsy.**

Side-effects that you have experienced may get worse for a short while after treatment before settling down. Do not worry this is quite normal. During this time you should follow the advice you have been given during treatment.

### **Late or permanent side effects**

It is possible for some types of reactions to occur months after the treatment has finished. This will depend on the type of treatment you have had. Some patients may notice short-term memory loss. Your treating team will discuss any possible late effects with you.

### **Treatment review**

A medical team consisting of doctors, nurses and radiographers are available everyday if you have a specific problem with your treatment or any side effects.

### **After the treatment**

- Please contact your GP if you have any worries about your medication or you develop more symptoms.
- A district nurse or a Macmillan nurse can visit you at home. Please ask staff looking after you if you would like this to be arranged.
- We will arrange a follow-up appointment for you either at The Christie or your local hospital about six weeks after your treatment.

### **Student training**

The Christie is a training centre for postgraduate and undergraduate trainees so you may meet male and female students in all areas of the hospital. We train doctors, nurses, radiographers and other therapists in the treatment and care of cancer patients. Placements at The Christie are an important part of student training, so by allowing them to assist in your care you will be making a valuable contribution to student education. Students are always supervised by fully qualified staff. However, you have the right to decide if students can take part in your care. If you prefer them not to, please tell the doctor, nurse, radiographer or other therapist in charge as soon as possible. You have a right to do this and your treatment will not be affected in any way. We also try to respect the concerns of patients in relation to the gender of their doctor and other health professionals.

Radiation can be harmful to the unborn child. It is important to let the radiographers know if you have missed a period or suspect that you might be pregnant before you are exposed to any radiation.

## Contacts

If you have any questions or concerns about your side effects, please call on the numbers below:

Radiotherapy reception at Oldham: **0161 918 7700**

Radiotherapy reception at Salford: **0161 918 7800**

Radiotherapy reception at Withington: **0161 446 3485**

Out of hours (evenings and weekends), please contact The Christie Hotline on: **0161 446 3658**

If you need information in a different format, such as easy read, large print, BSL, braille, email, SMS text or other communication support, please tell your ward or clinic nurse.

We try to ensure that all our information given to patients is accurate, balanced and based on the most up-to-date scientific evidence. If you would like to have details about the sources used please contact **patient.information@christie.nhs.uk**

For more information about The Christie and our services, please visit **www.christie.nhs.uk** or visit the cancer information centres at Withington, Oldham or Salford.

Contact The Christie Hotline for  
urgent support and specialist advice

**The Christie Hotline:**  
**0161 446 3658**

Open 24 hours a day, 7 days a week

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The Christie Patient Information Service  
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