

Patient Information on

# Prophylactic Cranial Irradiation (PCI)



This leaflet is for patients receiving radiotherapy to the whole head (brain). You may be having this treatment at the same time or just after radiotherapy to your chest. It describes:

- What is radiotherapy?
- How your radiotherapy is planned and treated.
- The effects that you may experience during and after treatment, and how best to cope with them.
- Who to contact if you have any questions or concerns.

## **What is radiotherapy?**

Radiotherapy can be used to try and prevent cancer developing. This is called prophylactic treatment.

Radiotherapy uses carefully measured doses of radiation to reduce or delay the growth of cancer cells. Most patients having radiotherapy are treated using a high energy beam of X-rays delivered to a precise area.

Therapy radiographers operate the radiotherapy planning and treatment machines and will be able to answer any questions or concerns that you may have. We have both male and female staff.

If you are in doubt about anything or have any questions or problems, please let us know as soon as possible.

## **Preparation for treatment**

Before you begin your treatment we must carefully plan it. A shell or mask will be made to help keep your head still during treatment. You will wear this for your CT planning scan and daily treatment. It is important because:

- It enables your radiographers to give your treatment accurately.
- It helps to support your head and keep it from moving during treatment.

The shell is made for you in the **Mould Room**.

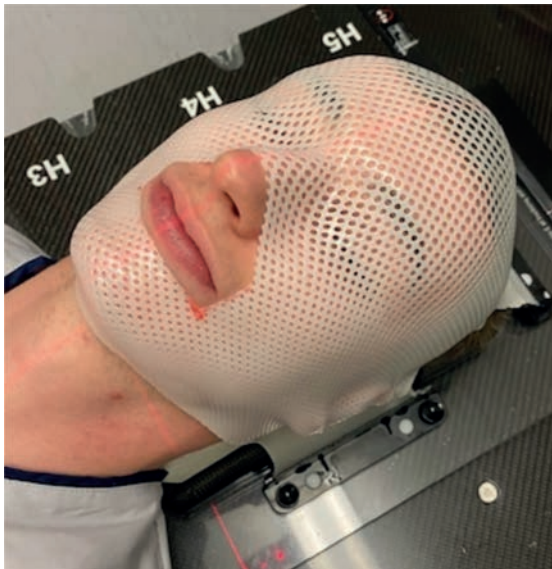
## **Mould Room**

The mould room staff will warm a special sheet of plastic until it becomes soft and flexible. It is then laid over your face and head and gently moulded around your facial features. The plastic will feel warm and slightly wet. It shouldn't feel uncomfortable.

The shell has lots of small holes in it and an open area over your nose and mouth which allows you to breathe normally. The process of making the shell is completely painless and takes approximately 30 minutes.

If you have a beard, we advise you to shave it off before coming to the mould room. It is important that your skin is smooth. This helps to ensure you have a well-fitting shell.

### **Picture 1: Shell**



Once your shell has been made, you will then have an appointment for a CT scan at the CT simulator. This may be on the same day or within a few days of your mould room appointment. You will wear your shell for this scan.

# CT Simulator

The CT Simulator is very similar to a normal CT scanner. It takes images to allow your doctor and radiographers to plan your treatment. There are no results from it.

## Picture 2: CT Simulator



Your radiographers will help you lie on your back on the CT couch. You will wear your shell. The couch is quite hard but your radiographers will make you as comfortable as possible.

They will put some marks on your shell. They will then leave the room to carry out the scan. Your radiographers can see you through a window. If you need them you can raise your hand and they will come straight in. The scan will only take a couple of minutes. The X-ray pictures from this CT scan will help us plan your radiotherapy.

This planning appointment will take about 20 minutes.

# Treatment

The number of treatments may vary but it is usually 5–10. They will be delivered once a day, Monday–Friday.

You will have your treatment on a linear accelerator (shown below). Your radiographers will position you on the treatment couch. You will wear your shell for each appointment. Your radiographers will check your individual treatment plan. When they are happy, they will leave the room and switch the machine on. Your radiographers will be watching you from outside on closed circuit TV.

The treatment machine will move round about you during your treatment. There is nothing to see or feel and you will feel no differently afterwards. The whole process only takes about 10 minutes.

**Picture 3: Linear Accelerator**



# Effects of treatment

We treat each person as an individual and the effects of treatment may vary from one person to another. Your doctor, radiographer, and clinical nurse specialist will explain specific aspects of your treatment. It is important to remember that this is a general guide.

## Short term side effects

Most side effects are common and are temporary.

- **Hair Loss** – Unfortunately you will lose the hair on your head. This often does not happen until after your treatment has finished. Your hair will usually grow back in a few months. However it may grow back differently, for example, it may not be as thick or have the same texture as before. We can make arrangements for you to get a wig. Please ask if this is not offered to you. We can also provide turbans if you prefer.
- **Skin** – Your scalp may become pink and itchy as a result of the treatment. This often happens after the treatment has finished. If your skin does get itchy we can recommend some creams to use. The skin on your head will always be more sensitive to extremes of temperature. Do not sit in the sun or go out in the cold without protecting your head.
- **Tiredness** – You may feel quite tired after your treatment finishes. This is perfectly normal but can last for some time after you have completed your treatment. Try to get enough rest and sleep, especially when the treatment begins to make you feel tired. It is also important that you try to continue with some of your normal daily activities. A sensible balance between rest and activity may be most beneficial. Research has shown that gentle exercise is also beneficial for people who have had a cancer diagnosis both in the short and longer term. There are programmes available that can help with this. Please let us know if you are interested in finding out more.

- **Headache** – Some people experience a headache, particularly after the first treatment. This usually settles down quite quickly and you can take any painkillers you would normally use.
- **Nausea (sickness)** – You may occasionally feel a bit sick. Your doctor can prescribe something to help with this if it is a problem.
- **Appetite** – Some people lose their appetite and do not feel like eating. Try to eat small amounts more often rather than facing one large meal and remember to drink plenty of fluids.
- **Hearing** – A few patients may have a feeling that their hearing is a bit dull and their ears are blocked after radiotherapy. Please let us know if this is a problem.

If you experience any of these effects, please speak to your team or doctor. They will be more than happy to provide advice.

## Long term side effects

There is small chance that radiotherapy will affect the function of your brain. It can increase the chance of developing problems with your memory, movement, or ability to think or reason (cognitive function). If you are being offered radiotherapy to the brain, we believe that the benefits of treatment outweigh the risks. Your doctor will be happy to discuss this with you.

## Washing your hair

As the treatment may irritate your scalp, you should follow these instructions when washing your hair:

- Treat your scalp gently and wash with lukewarm water.
- Let your hair dry naturally.
- Do not use tongs or straighteners as these will irritate your scalp.

- Avoid using products such as gel, mousse or hairspray as these will also irritate your scalp.

## **What do I do if I feel unwell while having my radiotherapy?**

If you suddenly feel unwell and unable to come for treatment, contact your GP and also let the staff at your treatment room know. If you feel able to come into the department, let your radiographers know that you are feeling unwell as soon as you arrive. They can arrange for you to be seen.

## **After treatment ends**

Any symptoms that have developed during treatment will gradually settle down. However it is important to be aware that some of the side effects such as tiredness and hair loss may take a number of weeks or a few months before they begin to settle.

Your doctor will arrange to see you approximately 4-6 weeks after treatment is completed. Continue to drink plenty of fluids and do as much as you feel able.

If you are unwell and have completed your treatment you must contact your own GP, the Radiotherapy Advice Line or the Cancer Treatment Helpline (see 'Where can I Get Help' section below).

## **Where can I get help?**

Many people have had a lot of information and support from their own district, Macmillan, community or oncology nurse at another hospital. Please remember to give them a call if you need to.

You can also contact your GP if you feel unwell or are concerned about anything.



## Information and support

All our staff are here to make sure your treatment goes as smoothly as possible and will try to help with any questions or problems you may have. Our Centre has a Counselling and Psychology Service available, please speak to staff if you feel this may be of use. Further specialist help and information is available from:

### **Information and Support Radiographer ☎ 0141 301 7427**

The **Macmillan Information & Support Centre** is on Level 1 at the main entrance of the Beatson. They offer emotional support, information and signposting to services within and near to the Beatson and in your own local area. Please visit or phone on ☎ **0141 301 7390**. Open Monday to Friday 8:15am to 4:15pm.

The Cancer Centre has a **Radiotherapy Advice Line** available for patients who have completed treatment. It is an answerphone service available Monday – Friday between 8:00am and 4:30pm. Please leave your name, date of birth and contact number and we will call you back as soon as possible. Please note this is not an emergency line.

### **☎ 0141 301 7432**

The Cancer Centre also has a **Cancer Treatment Helpline for urgent calls**. This is for patients on or within 6 weeks of treatment who have urgent or severe symptoms such as:

- Shivering or flu-like symptoms.
- Temperature greater than 37.5°C.
- Gum/nose bleeds or unusual bruising.
- Worsening or sudden breathlessness.
- Leg weakness/difficulty walking.
- Severe nausea/vomiting/diarrhoea/constipation.
- Sudden increased or uncontrolled pain.
- Other concerning symptoms associated with your cancer treatment.

The line is available 24 hours for emergencies, although it would be helpful if you called early in the day if this is at all possible.

**For Urgent Calls:**

**Beatson 8am-8pm Tel: ☎ 0141 301 7990**

**National 8pm-8am Tel: ☎ 0800 917 7711**

There are also voluntary organisations that can provide further information and support:

<b>Macmillan Cancer Support</b>	<b>☎ 0808 808 0000</b>
Providing practical, medical, emotional and financial advice for those affected by cancer.	
🌐 <a href="http://www.macmillan.org.uk">www.macmillan.org.uk</a>	
<b>Maggie's Gartnavel:</b> <b>Maggie's Lanarkshire,</b> <b>Monklands Hospital:</b> <b>Maggie's Forth Valley:</b>	<b>☎ 0141 357 2269</b> <b>☎ 01236 771199</b> <b>☎ 01324 868069</b>
Maggie's Centre provides a comprehensive cancer support programme for people and their families affected by cancer.	
🌐 <a href="http://www.maggies.org">www.maggies.org</a>	
<b>Cancer Support Scotland,</b> The Calman Centre, Gartnavel Complex:	<b>Freephone ☎ 0800 652 4531</b>
Provides emotional and practical support on a one-to-one basis and through community based groups. Complementary therapies available.	
🌐 <a href="http://www.cancersupportscotland.org">www.cancersupportscotland.org</a>	

**Beatson Cancer Charity  
Wellbeing Centre**

**☎ 0141 301 7667**

The Beatson Cancer Charity Wellbeing Centre is located on Level 4 in the Beatson. It provides a space to relax and offers various services including complementary therapies, podiatry and wig fitting/hairdressing. Patients can be accompanied by up to two visitors when visiting the centre. Ask staff members for further details.

Open Mon–Fri 9am–9pm, and Saturday 10am–5pm.

**Macmillan Benefits Team  
(within the Beatson)**

**☎ 0141 301 7374**

Provides free and confidential advice for people affected by cancer and their carers.

If you are interested in finding out about becoming more active, please visit:

**☎ [www.nhsggc.org.uk/getactive](http://www.nhsggc.org.uk/getactive)**

**Beatson Cancer Centre**

If you want to find out more about our Centre please visit

**☎ [www.beatson.scot.nhs.uk/](http://www.beatson.scot.nhs.uk/)**

**NHS 24**

**☎ 111**

# Care Opinion

We welcome your comments and feedback about our service.  
If you would like to give us feedback please go to:

 [www.careopinion.org.uk](http://www.careopinion.org.uk) or telephone:

 0900 122 3135 or scan the QR code:

