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# Prophylactic Cranial Irradiation (PCI) - preventative radiotherapy to the brain

Radiotherapy

A guide for patients and carers

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## **The Clatterbridge Cancer Centre Hotline 0800 169 5555**

If you are unwell during or up to six weeks following your cancer treatment please call The Clatterbridge Cancer Centre Hotline.

Your call will be answered by a dedicated nurse advisor. This line is available 24 hours a day, 7 days a week.



This information is for patients who are going to receive Prophylactic Cranial Irradiation (PCI) and will explain why you may benefit from PCI and what to expect at your first visit. It will provide information about side effects of treatment and access to services available to you.

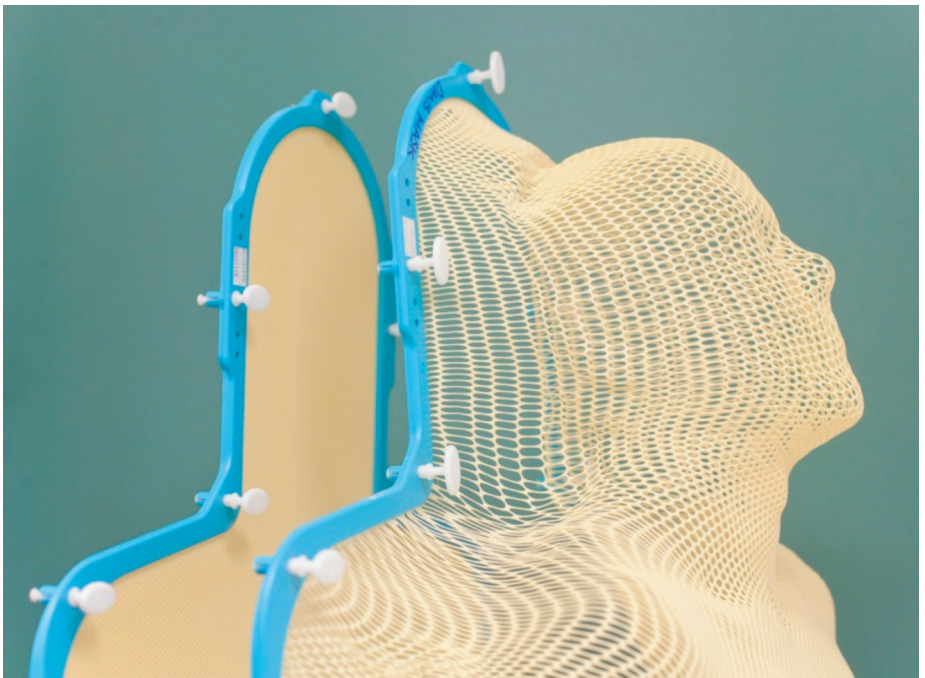
Prophylactic Cranial Irradiation (PCI) is given as part of the treatment of some cancers, most often for patients with a type of cancer known as 'small cell'. It involves treating the whole of the brain with radiation as a preventative measure. It is recognised that, following a good response to chemotherapy, there is a risk of cancer developing at a later date in the brain. To try to prevent this, PCI is considered for some patients following a full assessment. All the factors of an individual case will be considered when offering this treatment, including other health problems. It may be that radiotherapy is also advised to the origin of the tumour. In this case, both areas can be treated together on a daily basis.

PCI is usually given in 10 treatment sessions over a 2-3 week period.

At your first radiotherapy appointment, we will make a device called "a cast or mould". Each cast is individually made to ensure the cast fits well and is comfortable. Its purpose is to help you stay still and to place the treatment marks onto it, rather than your skin. The same cast is used for both for planning and treatment.

To make the cast, we use a sheet of plastic net that, when heated in warm water, becomes soft and stretchy. It is then placed onto your head, and takes your shape as it cools. This part of the process takes only a few minutes and is followed by planning (a CT scan to define and measure the area to be treated). The total time is usually about 20 minutes.

Please refer to our booklet 'Radiotherapy' for more information.



**This picture shows the thermoplastic mask before and after the moulding of the material to the patient's face.**



## Clinical Nurse Specialist (CNS) Service

This member of staff is available to give additional information, advice and support to patients (and carers) who receive radiotherapy for PCI.

## General information about the side effects of radiotherapy treatment

The usual pattern for the development of the temporary (short term or acute) side effects is to gradually start 5-10 days after the first treatment. They usually persist and worsen, the effects being most troublesome about 10 days after the first radiotherapy treatment. After this, the healing process begins. The side effects usually settle over the following 2-3 weeks.

You will be reviewed during treatment and given medicines and advice to help you cope.

## Possible side effects of (PCI) Prophylactic Cranial Irradiation

### Tiredness

This is an expected side effect of any radiotherapy treatment and radiotherapy to the brain can be particularly tiring. Tiredness may persist for a number of weeks, but usually it slowly improves. To help you to cope, do only the things that are necessary and plan rest breaks into your routine. Discuss with your therapeutic radiographers, if you have concerns.

## **Sickness and Headache**

The treatment can cause slight temporary swelling of the brain tissues which may cause side effects of sickness and headache. Your doctor may prescribe some medication (steroids) to reduce this. If you develop these symptoms during treatment, please inform your therapeutic radiographer as soon as possible. For out of hours help and advice, contact our triage service. This service is operational 24 hours a day 7 days a week.

## **Drowsiness (somnolence)**

This can occur during the period of radiotherapy treatment and also for a time after the treatment has ended. It is usually mild. This period of tiredness is at its worst about two weeks after treatment starts, but gradually begins to improve. It can sometimes get worse again around 4-6 weeks after treatment finishes and will then gradually improve.

## **Skin reaction and hair loss**

The areas of skin within the treatment field may become inflamed (sore) as a result of treatment, with the area around the ears being most troublesome. The skin reaction is likely to start towards the end of your treatment, with the peak of any discomfort about 10 days after it is completed. You should wash your head (and hair if present) using a gentle action, lukewarm water and soap or baby shampoo, if applicable. If recent chemotherapy has caused hair loss, and it has started to regrow, the hair will be lost again as a result of this treatment. It usually re-grows. You may want to consider using a wig, you can get information on this from our staff.



## Memory loss

It is recognised that some people who have had PCI treatment for small cell cancer may notice their memory isn't as good as it was. If it is troublesome, referral to an occupational therapist can help you find ways to help cope, e.g. by using memory aids.

## Follow-up

Most people will be seen in the Oncology clinic a few weeks after finishing their radiotherapy. This appointment is likely to be at your local hospital.

Alternatively, if you have contact with other teams for ongoing supportive care, e.g. District Nurse/Macmillan team staff that visit you at home, consider contacting them and/or your GP if you have any concerns.

Macmillan booklets about 'Coping and Living with Cancer' and 'Treatment Side Effects' are available free of charge. These can be ordered by telephoning 0800 500 800 or by visiting the Cancer Information and Support Centre (sited in the main entrance of Clatterbridge).

## Contact details

### **Clatterbridge Cancer Centre - Liverpool**

65 Pembroke Place, Liverpool, L7 8YA

Tel: 0151 556 5000

[www.clatterbridgecc.nhs.uk](http://www.clatterbridgecc.nhs.uk)

### **Clatterbridge Cancer Centre - Wirral**

Clatterbridge Road, Bebington, Wirral, CH63 4JY

Tel: 0151 556 5000

[www.clatterbridgecc.nhs.uk](http://www.clatterbridgecc.nhs.uk)

### **Clatterbridge Cancer Centre - Aintree**

Lower Lane, Fazakerley, Liverpool, L9 7AL

Tel: 0151 556 5959

[www.clatterbridgecc.nhs.uk](http://www.clatterbridgecc.nhs.uk)

### **Macmillan Cancer Support**

[www.macmillan.org.uk](http://www.macmillan.org.uk)

Tel: 0800 808 0000

### **Cancer Information and Support Centre:**

#### **Clatterbridge Cancer Centre - Liverpool**

Tel: 0151 318 8805





## Maggies

Maggie's is a charity providing free cancer support and information to anybody who been affected by cancer. Our Cancer Nurse Specialists, Psychologists and benefits advisors are here to support you during treatment or after your treatment has finished.

The Maggie's Centres allow you to share experiences with others in a similar situation around our kitchen table. We provide courses on survivorship, bereavement, stress management, mindfulness, tai chi, yoga, relaxation or cancer support groups. You do not need an appointment or a referral to access any support from Maggie's, you can just drop in. Our telephone number is **0151 334 4301**.





## How we produce our information

All of our leaflets are produced by staff at The Clatterbridge Cancer Centre and this information is not sponsored or influenced in any way. Every effort is made to ensure that the information included in this leaflet is accurate and complete and we hope that it will add to any professional advice you have had. All our leaflets are evidence based where appropriate and they are regularly reviewed and updated. If you are concerned about your health in any way, you should consult your healthcare team.

We rely on a number of sources to gather evidence for our information. All of our information is in line with accepted national or international guidelines where possible. Where no guidelines exist, we rely on other reliable sources such as systematic reviews, published clinical trials data or a consensus review of experts. We also use medical textbooks, journals and government publications.

References for this leaflet can be obtained by telephoning 0151 556 5570.

If you need this leaflet in large print, Braille, audio or different language, please call 0151 556 5570.

**If you have a comment, concern, compliment or complaint, please call 0151 556 5203.**

The Clatterbridge Cancer Centre NHS Foundation Trust  
Clatterbridge Road, Bebington,  
Wirral, CH63 4JY.

Tel: 0151 556 5000

Web: [www.clatterbridgecc.nhs.uk](http://www.clatterbridgecc.nhs.uk)

Issue date: April 2022

Issue no: 2.2

Reference: LRAAPCIRA

Review date: April 2024