Prophylactic Cranial Irradiation
Information for patients
This leaflet aims to help you and your family understand more about your radiotherapy to the brain (Prophylactic Cranial Irradiation).

It will be given to you in addition to the information you will receive from your clinical oncologist (who is a specialist doctor in cancer treatment). Their team will be caring for you during your treatment. This team may include radiographers, nurses, social workers, physiotherapists, occupational therapist and dietitians.

The leaflet describes radiotherapy planning and treatment. It also explains the side-effects which you may experience during and after treatment.

Each person’s treatment will vary, so the information given is a general guide. The healthcare team looking after you will explain your treatment and the side-effects in detail. If you hear any words or phrases that you do not understand, please ask your doctor or a member of your healthcare team what it means. It does not matter how many times you ask.

Staff will make every effort to meet your individual needs or will direct you to the person who can help.

Please do not bring any valuables into hospital with you as the Trust cannot accept liability for loss or theft.

All your radiotherapy planning and treatment will take place in the Radiotherapy Department on Level -2, Bexley Wing, Leeds Cancer Centre, St James’s Hospital (LS9 7TF).
Why have radiotherapy?

Radiotherapy can be used to try and prevent cancer developing. This is called prophylactic treatment. Radiotherapy can reduce or delay the growth of cancer cells that may have spread to the brain.

Prophylactic Cranial Irradiation (PCI) treatment is given to some patients who have Small Cell Lung Cancer (SCLC). SCLC sometimes moves to the brain but can be too small to see on scans. These spots of cancer could grow and cause patients to become unwell. Radiotherapy to the brain aims to treat any cancer in the brain before it starts to grow, and so reduces the number of people who get symptoms from cancer in the brain.

What is radiotherapy?

Radiotherapy is the use of high energy X-rays to treat cancer. The organs and tissues of the body are made up of tiny building blocks called cells. Radiotherapy causes damage to the cells in the treated area. Although normal cells are also affected, they can repair themselves and are able to recover. You do not feel anything with radiotherapy and it does not make you radioactive. It is perfectly safe for you to be with other people, including children, throughout your treatment.

You will have your radiotherapy on a treatment machine called a linear accelerator as shown here in the photograph.
If you would like to visit the radiotherapy department before your treatment starts please call 0113 206 7603 to arrange a time. This visit can be very useful as you can find out more about radiotherapy. It is a good opportunity to visit the department, to see where you will be treated, meet the staff and ask questions.

‘I was so pleased to see the machines before my treatment and the staff were so helpful and really put my mind at rest.’

Therapy Radiographers

Radiotherapy is given by male and female therapy radiographers who are highly trained in the accurate planning and delivery of radiotherapy treatment. You will see your radiographers at each treatment session and they will be happy to answer any questions you may have.

Students

The radiotherapy department is a training centre for male and female radiographers. Students may be present on the treatment units. However, they are supervised at all times. If you do not wish students to be present during your treatment please speak to a member of staff. This will not affect your treatment or care.
Contraception and pregnancy

It is important that women do not become pregnant while having cancer treatment because radiotherapy and chemotherapy can have an effect on the unborn child. It is suggested that you use a barrier form of contraception (e.g. condoms). For more information see the ‘Contraception and pregnancy during cancer treatment’ leaflet. Please do not hesitate to ask your doctor or nurse if you have any questions or concerns about these issues.

Planning your treatment

Your first appointment for radiotherapy will be a planning appointment. This will be used to gather all the information we need to accurately plan your treatment. You will be contacted by phone, with an appointment for your radiotherapy planning session. This may be done at the same time as your lung cancer treatment is planned.

You may see your clinical oncologist (or a member of their team) at this appointment. This is an ideal opportunity for you to ask questions. If you have not previously consented to your treatment you will be asked to sign a consent form.

What to bring with you

- a list of all questions you may have;
- an up-to-date list of all the medications you are taking (including inhalers, sprays, vitamins or herbal products);
- any medication that you may need during your visit;
- something to eat and drink and something to occupy yourself with as this first visit can be quite lengthy (up to two hours).
Mould Room

You will need to wear a mask for your treatment. You will be given an appointment to attend Mould Room, where this mask will be made. This mask is needed to help you stay still during your treatment. It will be worn during your CT Planning scan and during treatment.

If you have any concerns about the mask, please let your clinical oncologist or a member of their team know. We have a support team who will help you.

Your planning scan

In order to plan your treatment you will have a CT scan. This is done on a machine called a CT Simulator, shown here in the photograph. There will be several members of staff present at your scan.

You will be asked to lie flat in a position that you must be able to maintain for about 15 minutes, each day during your radiotherapy treatment. If you are not comfortable and think you are unable to hold this position then please tell the radiographers. They can make you more comfortable.
Radiographers will talk to you about future appointments and will give you an appointment letter with your first couple of appointment dates and times. This letter can also be used to allow you to exit the multi-storey car park free of charge.

**Having your treatment**

You will have your radiotherapy on a machine called a Linear Accelerator. A course of treatment can last from 1-15 treatments and it is given once a day.

On the first day of treatment the radiographers will talk to you and explain what will happen during your treatment and answer any questions that you may have. You will be given a full list of all your treatment and clinic appointments. Occasionally, your appointment times may be altered at a later point, but this would be discussed with you. There may be occasions when you may have a longer stay in the department or be asked to attend at a different time, e.g. to see your oncologist, and these appointments will be on your list.

A team of radiographers work together in the treatment room. You will hear them giving each other instructions and information relating to your treatment.
Once you are in the correct position the radiographers will leave the room to switch on the machine. You will only be alone for a few moments at a time. The radiographers will be watching you on a closed circuit TV monitor. There is also an intercom system so the radiographers can talk to you.

The treatment machine makes a buzzing sound when switched on. You do not feel anything. The radiographers may need to come in and out part way through each treatment. The machine stops automatically after your prescribed dose of treatment has been given. The radiographers can stop the machine at any time if needed.

After the treatment is complete the radiographers will come back in to the room to help you off the couch.

During the treatment course, please tell the radiographers how you are feeling. If you have any problems or questions, please let them know. They will also monitor any side-effects you may be experiencing.

Some days the radiotherapy department may be very busy and your appointment time may be delayed. We will try to keep you informed of any delays.

It may be a good idea to bring something to eat and drink with you, along with any medication you may need. There is a restaurant and café available on Level 0.

If you have any queries about your appointment times please discuss these with the radiotherapy coordinators or radiographers on the treatment unit.
Side-effects

During treatment you may experience some side-effects. Not everyone will experience all of these reactions. If you do experience any of the following side-effects, do not worry, they are normal reactions to treatment and are temporary. Most side-effects begin after the course of treatment and may last up to three months after it has finished, then slowly settle down. Please tell your lung nurse specialist how you are feeling, particularly if your symptoms worsen, so that we can advise and treat you.

Fatigue (tiredness)

You may find that you will become increasingly tired and lethargic following your treatment. This is a common side effect. The sleepiness can be at its worst several weeks after the radiotherapy. You may also have difficulty concentrating, remembering things and a feeling of fuzziness. This can last for some months after the radiotherapy has finished. Be prepared to take things easy during treatment and allow for extra rests. There is a Macmillan information leaflet available called ‘Coping with fatigue’. If you would like a copy, or support with your fatigue, please ask a member of staff.

Hair Loss

The hair follicles (roots) are very sensitive to radiation. Any hair directly in the treatment field will gradually fall out during the course of treatment or shortly afterwards. You may start to notice your hair thinning 2-3 weeks after starting radiotherapy. This hair loss may be temporary. When the course is finished your hair should grow back, but in places it may not be as thick as before. The texture and colour of the new hair might change. It can take up to six months before your hair re-grows. Frequently there are areas of the scalp where the hair may not grow back at all.
A wig can be provided for you if you would like one. Please ask your nurse, radiographer or doctor. Turbans, scarves or hats are attractive alternatives to a wig. You may find wearing a hair piece, cap or hat more comfortable. Any head wear worn should not be too tight. There is a hair loss workshop and support available to anyone experiencing hair loss. For more information please contact the Sir Robert Ogden Macmillan Centre.

Tel: 0113 206 6498  
email: leedsth-tr.Cancersupport@nhs.net

Skin reaction
The skin over the head is sensitive to radiation and 10 to 12 days after starting your radiotherapy, the skin where you are having your treatment may change. It could become warm, dry, itchy and sore, especially around your ears. Your ears can feel temporarily blocked causing deafness. Any skin reaction you may experience will clear up a few weeks after your treatment has finished.

You will be given a leaflet called ‘Skin care during radiotherapy’ which will give you more information about this. Another leaflet called ‘Skin care after radiotherapy’ will give you information on how to care for your skin after your radiotherapy. The radiographers will give you this leaflet when you have finished your course of treatment.

Headache, nausea and vomiting
During your first few treatments you may experience headaches and nausea. Vomiting together with these two symptoms is uncommon, however if you do have any problems please inform your nurse, radiographer or doctor. Anti-sickness medication may be prescribed if necessary.
Long term side-effects
There is a small chance that radiotherapy can affect the function of the brain and can increase the chance of developing dementia. However, the benefit of the treatment in reducing the risk of cancer developing in the brain, outweighs the possible long term damage. If you are worried please discuss this with your doctor.

Anxiety and emotional support
During treatment many people feel stressed, anxious, depressed and, at times, unable to cope. If you or your family feel that you need someone to talk to we are able to offer appropriate help and advice - please discuss any problems with your nurse, radiographer or doctor.

Useful organisations
Leeds Cancer Support
Leeds Cancer Support complements care provided by your clinical team. We offer access to information and a wide range of support, in a welcoming environment for you, your family and friends. We can be found in the information lounges in Bexley Wing and also in the purpose built Sir Robert Ogden Macmillan Centre.

Information Lounge Level 1 Outpatients Department
Open from 10am - 4pm. Tel: (0113) 206 8816

Information Lounge Level -2 Radiotherapy Department
Open from 8.30am - 6pm. Tel: (0113) 206 7603
The Sir Robert Ogden Macmillan Centre

The Centre is on the St James’s Hospital site and offers a variety of support services including counselling, support groups and complementary therapies. These therapies include Reiki, relaxation, hand and foot massage and many others. You can just drop in for a coffee and a chat anytime. Open from 10am - 4pm Monday to Friday.

Open from 10am - 4pm. Tel: (0113) 206 6498

All the Leeds Cancer Support services can be emailed on: leedsth-tr.Cancersupport@nhs.net

Macmillan Cancer Support

Freephone 0808 808 00 00 - 9am to 6pm Monday to Friday
A textphone service for deaf and hard of hearing people is available on 10800 0808 808 0000.
website: www.macmillan.org.uk

The Roy Castle Lung Cancer Foundation

Telephone: 0333 323 7200  Website: www.roycastle.org