



Royal Berkshire
NHS Foundation Trust

Radiotherapy for breast cancer and the lymph nodes

Information for patients on
radiotherapy treatment

Compassionate

Aspirational

Resourceful

Excellent

What happens next?

In the clinic, you and your doctor have agreed that you are going to have radiotherapy treatment for your cancer. This booklet explains what you can expect during and after your treatment and gives some general advice and information.

If you have any questions or concerns that aren't answered in the booklet, don't hesitate to contact one of the breast care nurses on 0118 322 7420 / 0118 322 8598, or the consultant radiographer in breast radiotherapy on 07557 253 773. Leave a message on the answer phone if the nurses/radiographer are unavailable.

Planning treatment

You will be contacted by telephone with a planning appointment. Your treatment will be scheduled to start approximately 2-3 weeks after this date.

If you have not been called by the Radiotherapy Planning Department by _____ then please contact us on: Telephone 0118 322 7872 or email radiotherapy.planning@nhs.net Monday-Friday 8.30am-9.30am, 3.30pm-4.30pm

You have been given this booklet about your radiotherapy treatment that will explain what radiotherapy is, how it is given and the side effects that may occur during or after treatment has finished. You will be given time to discuss these issues with a person trained to give radiotherapy – the radiographer – at your planning appointment.

This information can also be seen in a video link found here:

<https://www.royalberkshire.nhs.uk/featured-services/berkshire-cancer-centre/radiotherapy/>

Please let us know if you have a pacemaker or other implanted cardiac device, as radiotherapy can affect some types of cardiac devices.

What are the benefits of radiotherapy?

The benefits of radiotherapy are due to its effect against any residual cancer cells remaining in the area being treated.

Radiotherapy uses high energy x-rays to kill cancer cells.

After surgery for breast cancer there remains a risk of a recurrence of the cancer in the breast over subsequent years, even when the surgeon has completely removed the cancer that can be seen.

Giving a course of radiotherapy after surgery reduces this risk. (If chemotherapy is also recommended, then radiotherapy is usually given after the chemotherapy has been completed.) Without radiotherapy, trials have shown a risk of recurrence in up to 40% of patients by 12 years after surgery. If radiotherapy is given, this risk is reduced to approximately 2-3% of patients.

The extent of surgery carried out in the armpit area varies. When examination of the lymph glands removed shows that cancer has spread to them, there may be a need to treat the remaining lymph glands with radiotherapy. The need for and extent of such radiotherapy depends on the extent of surgery which has been carried out and your specialist will discuss this with you. The aim of such treatment is to prevent recurrence of the cancer in any of the lymph glands which have not been removed by your surgeon.

When recommending radiotherapy, your doctor will have taken into account the risks and benefits of the treatment. Although there are risks and side effects, it is felt that the advantages for you outweigh the disadvantages.

Radiotherapy of the breast and lymph nodes

Your surgeon and oncologist (cancer specialist) have referred you for a course of radiotherapy to the breast and associated lymph nodes.

Depending on the results of your surgery you will have been prescribed between 5 and 18 treatments. You may have radiotherapy treatment daily or less frequently – your oncologist will

discuss this with you and will also discuss if they wish to prescribe 3 further treatments at the end of your course. These 'boost' treatments will be to the area around your scar, where the lump was removed. These boost treatments are not usually required for patients who have had a mastectomy.

A member of the radiotherapy staff will telephone you with an appointment to attend the department to have your treatment planned. If you have any problems with travel or appointment times, please mention these when you are contacted about your planning appointment – we will do our best to help you.

People having radiotherapy are entitled to a parking permit for their treatment sessions. Please ask the Cancer Centre receptionist or the radiographers for a parking permit, which you can use while undergoing radiotherapy treatment at the Cancer Centre. Please allow 45 minutes to an hour for the first planning appointment.

Pregnancy

Patients with child-bearing capacity must not be pregnant or become pregnant at any time during a course of radiotherapy as 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 may be pregnant, before you are exposed to any radiation. Patients with child-bearing capacity will be asked to confirm their pregnancy status prior to planning the radiotherapy and again on the first day of radiotherapy treatment. This applies to all those with child-bearing capacity between the ages of 10-56 years and is a legal requirement.

Patient identification

The hospital has a policy to ensure the correct patient is identified for their scan or treatment each time they attend an appointment. Staff will ask you to confirm your full name, your date of birth and the

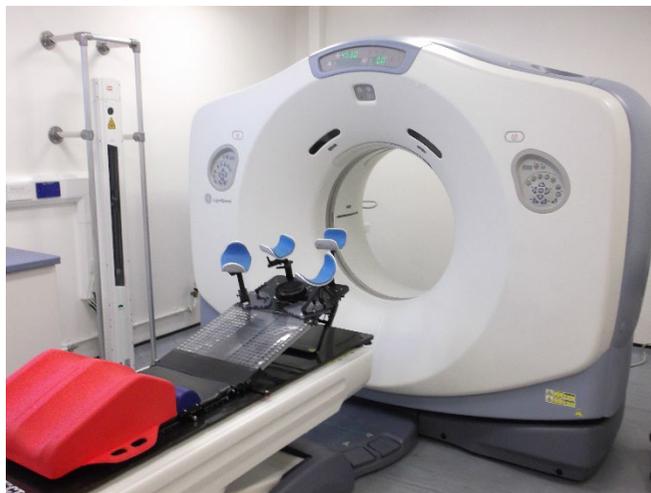
first line of your address. You may be asked this by different staff members, so please bear with us, but we take great care to ensure the correct patient identification checks are undertaken.

Your planning appointment

When you arrive for your planning appointment, please report into the radiotherapy reception desk where the receptionist will show you where to wait until you are called through.

The treatment is planned individually for each patient to make sure that the cancer cells are destroyed with the least amount of damage to normal tissues. Your planning takes place in the CT (computed tomography) scanner. Your actual treatment will start approximately 2-3 weeks after this when the treatment has been planned and all the dose calculations have been completed and checked.

When you attend your planning appointment, you will be asked to remove all your clothes from the waist up and to change into a gown. The planning radiographers will then help to position you on a breast board. (A breast board is a device which allows your arms to be supported in a position raised above your head, to ensure your arms are clear of the treatment area. Pictured below.)



Please tell the radiographers if you are uncomfortable as you will need to stay still in this position for up to 30 minutes.

You may be stiff after your operation, but the arm exercises given to you by the physiotherapist/ breast care nurse at the time of your surgery, should help to improve your arm movement, please continue to practise these regularly.

Once you are positioned comfortably on the breast board the radiographers will feel for some bones in your chest to make you are straight. They will then draw some temporary pen marks on the skin. Be aware these marks will be drawn on both sides of your chest as the marks are used to check you are in the same position when you return for treatment.

Either before or after the scan is complete we will take a series of measurements and record all of the information on a set up sheet. This set up sheet will go to treatment with you so that the radiographers can set you up in the same position.

When the radiographers are moving you into the correct treatment position and recording the measurements it may appear like they are talking over you. Do not hesitate to ask questions at any point during this time.

During the CT scan the radiographers will leave the room, however they are watching you all the time through a window at the bottom of your feet. During this time, we will ask you to lie still but breathe normally. You will not see or feel anything at all while the scan is taken.

Some patients will require the placement of three small tattoos as a reference point for the radiotherapy. This involves pricking the skin with a small needle and tattooing ink and these will be permanent tattoos. Please be aware that although we try to keep the tattoos as small as possible there are occasions where the ink can spread slightly under the skin making the mark slightly larger.

The planning radiographers will tell you if tattoos are required for your treatment plan.

Before you leave your planning session you will be given the date and time for your next appointment to actually start treatment. This will be approximately 2-3 weeks after your first appointment. This allows us to check the data from your first planning appointment and to produce a computerised plan of your treatment, ensuring an even dose to all the breast tissue and minimizing the dose to surrounding tissues and organs – e.g. heart and lungs.

You will not receive any results from the scan today as it is not a diagnostic scan.

If the consultant has discussed having a boost treatment with you, a “Day Zero appointment” will be given to you. This is a practice run for your boost treatment, and is done to check the set up position of the boost. The appointment for this will be 4-5 days **before** the start of your radiotherapy treatment. If the doctor later decides that a day zero appointment is no longer required, one of the radiographers will telephone you to cancel it and they will confirm your treatment start date.

Your first radiotherapy treatment

When you arrive for your treatment please report into the radiotherapy reception desk where the receptionist will show you where to wait. A member of the radiotherapy team will call you in for your treatment.

On your first treatment day you will have a chat with one of the team of radiographers who will be treating you. They will:

- Check your details (see overleaf).
- Give you the first week of appointment times.
- Discuss the treatment procedure.
- Outline the potential side effects.
- Inform you that a review radiographer will contact you during your course of treatment.
- Answer any questions you may have.
- Show you where to go, and where to wait for your appointments.

External radiotherapy treatment does not make you radioactive. It is perfectly safe to be with other people, including children, during your treatment.

What happens during the treatment?

Each time you attend the department for treatment we need to ensure we are treating the correct person. As you enter one of the treatment areas we will ask you to identify yourself by telling staff your name, date of birth and first line of your address. The staff will check this information against the treatment sheet that has the doses for your radiotherapy.

You will be positioned on the breast board, as you were for your CT session. Our treatment machines have a camera system attached which uses infra-red lights to help us get you into the correct position and will also detect movement during the radiotherapy. We will need to remove your clothing from the waist up in order to use the camera system. You may feel a bit exposed, but it will only be your treatment team that is present with you. You will not feel anything from the infra-red light and it will not affect or hurt your eyes so you can keep them open if you wish. Please do let us know if you are light sensitive.

All the measurements for your treatment will then be set and checked. The machine will then move to the first treatment position. The radiographers then leave the room to take a scan of treatment area to ensure the position of the treatment is correct. A monitor will then be attached to your skin to check the radiation dose as your treatment is being delivered. The radiographers leave the room during treatment delivery so they don't get exposed to too many high-energy rays, as they will treat many patients during one day.

It is very important you remain still.

Although you are alone in the room, you will be monitored on a TV monitor during your treatment. If you need a radiographer during the treatment, raise your hand clearly and a radiographer will stop the treatment and come into the room.

You will not feel anything during the treatment but you will hear a buzzing noise as the treatment is delivered.

Each treatment position takes between one and two minutes to treat, but the total time of your first treatment will be up to 20 minutes.

Subsequent treatments should take between 10 and 20 minutes.

Once we have started treatment we aim to complete it without any breaks or days off. However, we know that circumstances do sometimes arise where either you cannot come for treatment or for technical reasons (e.g. a machine breakdown) we are not able to deliver to the original schedule. If any treatments are missed, then they will be added on to the end of the course. This will not affect the effectiveness of treatment and in the event of repeated delays you will be given more information. If there are any short notice changes of appointments times we ask for your understanding while the staff work hard to rearrange your appointment.

Please note you will be given a list of your appointments on a weekly basis to try and avoid as many changes to appointment times as possible.

Side effects of radiotherapy

While radiotherapy can destroy cancer cells it may have also have an effect on some of the surrounding normal cells.

Radiotherapy affects people in different ways so it is difficult to predict exactly how you will react to your treatment. Most side effects are temporary and will disappear over a few weeks or months.

Possible side effects

Side effects and their intensity will vary from patient to patient – everyone is different and reacts differently to the treatment. It is important you keep the radiographers informed of any side effects that you experience.

Side effects can be broken down into two phases. Early side effects slowly build up during the radiotherapy; get worse the week after it has finished and then settle back down to normal 4 to 6 weeks after the treatment is completed. Late side effects may occur many months to years after the treatment.

Early effects:

Skin reaction: The main side effect you may experience from the treatment is a skin reaction on the breast we are treating. This begins as a mild reaction similar to sunburn and may become dry and itchy. The reaction may become more severe, like very red sunburn, and may occur especially in the fold of skin under your breast or in your axilla (armpit).

Please continue washing as normal, using your usual soap or shower gel, during your radiotherapy. Rinse your skin well and pat gently dry with a soft towel. Avoid rubbing the skin.

If you already use a moisturiser, then continue as normal, but please avoid applying it within one hour of your treatment.

You may continue to use your usual deodorant unless you find this irritates your skin during the radiotherapy.

Your radiographer will monitor your skin each time you have your radiotherapy and will advise you if you need to change anything.

Additional hints and tips to help your skin:

- Avoid applying hot or cold heat sources to the treatment area.
- Avoid direct sunlight exposure in the treatment area for the first year following radiotherapy. After this time, a very high factor sun block cream should be used on any exposed skin which was previously treated.
- Try to keep natural fibre clothing against your skin.
- Try to leave your bra off when at all possible, to avoid friction.
- Avoid swimming while on treatment.

- Don't shave under the arm on the side being treated
- Avoid talcum powder in the treatment area.

If you experience any itching in the treatment area, please let the radiographer know and he/she will advise you further. If your skin becomes more reddened and tender, you may be able to speak to one of the review radiographers prior to your scheduled review appointment. They will be able to give you some advice and, if needed, dressings. If you experience any pain or discomfort, you can take painkillers, such as paracetamol, following the dosage instructions on the packaging.

A small number of patients may develop what we call 'moist desquamation'. This is where the skin surface comes off and leaves a superficial graze. It is like a 'burn' and can be quite uncomfortable. If this happens you will be advised on how to help it settle down and given appropriate dressings to apply to the sore area. Like the other skin changes, it generally settles down within 4 weeks of the radiotherapy finishing.

Pain: Some patients do experience discomfort within the breast which occasionally becomes a little swollen during treatment. This is usually a mild symptom and seldom troublesome enough to need any painkillers, although these can be used if necessary.

Tiredness: Your body will use a lot of energy over the course of the treatment and added to the travelling and anxiety of this you may feel tired. The tiredness may start whilst you are on treatment and could continue for some time after treatment has finished. You should try and pace the activities that you do during the day and have a sleep or nap if needed. There is no reason why you shouldn't continue with your usual daily activities as you feel able and there is good evidence to suggest that keeping physically active during and after radiotherapy can help reduce tiredness.

Eating and drinking: You may find that you have less interest in food during your radiotherapy treatment and that your eating habits change. It is important to keep up a healthy diet and drink plenty of fluids whilst you are having your treatment. If large meals become difficult to face, eat smaller amounts at more times during the day. If eating and drinking becomes a problem and you feel you are losing weight, then please let one on of the staff know and they may be able to refer you to a dietitian.

Nausea: A few patients experience nausea during this treatment, but it is usually mild and manageable. Please tell the radiographers if you feel nauseous as we will be able to recommend ways of dealing with this and you may be given an anti-sickness tablet to take.

Cough: sometimes part of the lung behind the breast becomes inflamed and can cause a dry cough or slight shortness of breath. This usually heals by itself.

If you are concerned about any effects the treatment may cause, please speak to the radiographers treating you

Late effects:

Late effects are those that may show up months to years after radiotherapy treatment and are then permanent effects. In most people these effects are mild and do not interfere with everyday activities or lifestyle. However, a small proportion of people (less than 1 in 10) develop more marked effects that can be troublesome.

Breast appearance: Radiotherapy may make the breast tissue feel firmer and over the months/years the breast may shrink slightly. Some degree of breast shrinkage is expected in about 30% of patients over 5-10 years. The changes are marked in less than 10% of patients.

The breast may become tender, swollen and pinker in colour several months after treatment. There may also be short shooting pains and twinges. These are usually mild but may continue for a while after treatment. Some changes are noticed by about 30% of patients. Discomfort is marked in less than 10% of patients.

Rarely, some patients experience small red marks on the skin – this is due to small burst blood vessels. This is called telangiectasia. It can be unsightly but doesn't cause problems. This occurs in less than 10% of patients.

Shoulder movement: Some restriction in the range of shoulder movement may occur on the side which has been operated on or received radiotherapy in about 10% of patients. This is marked in less than 5% of patients.

Lymphoedema: Swelling of the arm (lymphoedema) may develop in less than 20% of patients. It is caused by scar tissue which may form after an operation in the armpit or radiotherapy to the armpit. Lymphoedema is marked in less than 5% of patients, and can be managed with combinations of exercise and massage. In severe cases, help from a specialist lymphoedema team can be obtained.

Lung: Damage to lung tissue may cause some degree of breathlessness in up to 5% of patients, although it is only likely to interfere with everyday activities in less than 1% of patients. Every effort is made during the planning process to limit the amount of lung included in the treatment area in order to minimise this risk.

Bones: Radiotherapy can make bones brittle and more likely to fracture (break). With this treatment the bones at risk are ribs and collarbone. Rib fracture is painful and may occur in less than 2% of patients. Fracture of the collarbone is rare, occurring in less than 1% of patients. A fracture usually heals without any treatment.

Occasionally, healing is delayed and pain persists. This happens in less than 1% of patients.

Heart damage: A patient who has had radiotherapy to the left breast may be more susceptible to heart disease. The risk of a heart attack due to a late effect from radiotherapy treatment is estimated to be less than 1%.

Nerve damage: Damage to the nerves supplying the arm (brachial plexus neuropathy) is a rare and serious side effect. It can cause pins and needles, numbness, pain and weakness (paralysis) in the arm and hand. These changes occur in less than one in 1000 patients.

Radiation induced cancer: In theory, any exposure to radiation can very slightly increase the risk of developing a cancer years later in the area exposed.

In a person being treated for a tumour, these risks are negligible when compared to the risk of not adequately treating the tumour that they have had.

Only a small percentage of patients will develop even one of these side effects and it would be extremely rare for someone to develop several.

If you have any further questions about the information contained in this booklet, please speak to one of the members of the specialist team who are treating you.

Further information about cancer, its treatments and living with cancer can be obtained from the Macmillan Cancer Information Centre situated in the reception area of the Berkshire Cancer Centre. Please drop in Monday – Friday 10.00am -2.00 pm or call 0118 322 8700.

Contact details

Radiotherapy Planning Department: 0118 322 7872

Email: radiotherapy.planning@nhs.net

The review radiographers are contactable on 0118 322 8869

Email: reviewradiographers@royalberkshire.nhs.uk

The consultant radiographer in breast radiotherapy is contactable on 07557 253 773

The breast care nurses are contactable on: Tel 0118 322 7420 / 0118 322 8598 or email BreastCareNurses@royalberkshire.nhs.uk

Hours: Monday to Friday 8.00am – 4.00pm.

Further information

For information on any aspects of your breast cancer please contact:

Macmillan Cancer Support

0808 808 2020

www.macmillan.org.uk

Breast Cancer Now

0808 800 6000

<https://breastcancernow.org/>

Royal Berkshire NHS Foundation Trust Patient Advice and Liaison Service (PALS): 0118 322 8338 or email PALS@royalberkshire.nhs.uk

Notes

To find out more about our Trust visit www.royalberkshire.nhs.uk

Please ask if you need this information in another language or format.

BCC Radiotherapy Planning Department

Reviewed by Updesh Kaur, Allison Hopkins, Sam Calder, November 2022

Next review due: November 2024