



University Hospitals Birmingham
NHS Foundation Trust



Radiotherapy for Gynaecological Cancers

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What is radiotherapy?

Radiotherapy uses high energy X-rays to target and kill cancer cells in a specific area. This can be given externally using a machine similar to a large X-ray machine or internally (brachytherapy) using small tubes placed into the vagina. It can also be given as a combination of these two methods. External treatment is normally given in short treatment sessions daily Monday to Friday and brachytherapy is given in sessions usually a few days apart. Radiotherapy is similar to having an X-ray and does not hurt but you do have to lie still for a few minutes. Normal cells within the treated area can also be affected, resulting in some side effects. The side effects will be discussed at a later point in this leaflet.

The treatment will not make you radioactive so it is safe to be around children and other people after your treatment.

It is extremely important that you are not pregnant or become pregnant during radiotherapy. Radiation can damage an unborn foetus and you must let the radiographers know at once if you think you may be pregnant before any radiation exposures are given on the CT scanner or treatment machine.

What are the benefits of radiotherapy?

Radiotherapy can help to improve the control or symptoms of gynaecological cancer. Your consultant will discuss this with you in more detail at your consultation appointment in clinic.

Are there any alternative treatments?

Cancer may also be treated with surgery and or/chemotherapy and your consultant will discuss with you whether these are possible treatments for you.

What happens before my radiotherapy begins?

After you have consented to having radiotherapy treatment, you will be sent an appointment letter to attend the radiotherapy department for a computed tomography scan (CT scan). This is a planning appointment to gain information of the area to be treated, whilst lying in the treatment position, for your external beam treatment.

During this appointment a CT scan will be carried out to enable your radiotherapy treatment to be planned. The CT scan will be of your pelvic region and will take about 20 minutes. You will need to have a full bladder for your CT scan and for each treatment session as this helps reduce side effects from radiotherapy treatment. To ensure that the bladder is about the same size on the CT scan as it will be for treatment, the radiographers will ask you to drink four cups or 500 millilitres of fluid 30 minutes before your scan appointment. There is a water machine available in the radiotherapy department but you are welcome to bring your own drink with you if you wish.

You may find it easier to wear a skirt or trousers rather than a dress to the appointment as you will be asked to remove your clothes and underwear below the waist and to lay down on the CT couch. This is so that the radiographers can carry out the measurements and skin marking that they need to do to ensure your treatment is accurate. You will be covered with a modesty sheet of paper.

To help your consultant plan your treatment the radiographers may ask for your permission to put a soft bendy tube into your vagina. This is because it is difficult to see the vagina on a CT scan and the tube helps to highlight where the vagina is, in relation to your other organs and surrounding tissue. This is an important aspect of ensuring that you have the most accurate treatment plan possible. The tube is removed at the end of your planning session and you do not need to have the tube inserted for your treatment. Your consultant may also request for some dye (contrast) to put into your back passage (rectum) to enable your rectum to be seen more clearly on the CT scan. This is done by putting a very small soft bendy tube into your rectum, through which a small amount of contrast is put through. This is not always necessary and the radiographers will discuss this with you when you attend for your scan

and the tube is always removed at the end of the scan.

The radiographers will also ask you for your permission to do some small tattoos at the end of the CT scan planning session. These are about the size of freckle and will be permanent. The tattoos ensure that your treatment will be as accurate as possible as it provides reference points for the treatment radiographers. If you decide that you really don't want tattoos please discuss the alternatives with the CT radiographers.

At the end of the planning session you will be given a date and an appointment time for your first radiotherapy treatment. The radiotherapy department is open from 08:00 - 20:00 and you will be offered treatment times within these hours. It may not always be possible to accommodate requests as we are a very busy department, with approximately 200-250 patients on treatment at any one time.

It is best to ask at the earliest opportunity if you require changes to your appointment schedule.

If you require hospital transport for your radiotherapy treatment please discuss this with the CT radiographers at your first visit.

If you are also having chemotherapy the CT radiographers will ask you to have some blood tests and they may record your height and weight. This is to ensure that your chemotherapy can be prescribed.



The start date of your radiotherapy might not be straight away. This is because your treatment now needs to be planned and this can be a long process.

After your CT scan is completed a member of staff will show you where you need to book in for your radiotherapy treatment appointments.

Bladder filling

You will need to fill up your bladder prior to your radiotherapy appointment, please remember to do this prior to your appointment time. Drink 4 cups or 500 millilitres of fluid 30 minutes before your treatment appointment. There is a water machine available in the radiotherapy department, but you are welcome to bring your own drink if you wish.

Bowel preparation

You may also need to do some bowel preparation before the planning CT scan and before each radiotherapy treatment. If you need to do this, you will be sent a separate leaflet with instructions on how to do this.

What happens when I come for my first treatment?

Your treatment will be carried out on a machine called a linear accelerator. These are located on the ground floor of the Radiotherapy department. You will be shown how to find your treatment room at the end of your CT planning session. On your first day of treatment you can go directly to your allocated treatment room. If you can not remember where it is, please ask at the reception desk in the Cancer Centre or any member of staff. Place your appointment card in the box outside the room so that the radiographers know that you have arrived and then take a seat in the waiting area.

We are a teaching hospital and have student radiographers in the department everyday who are supervised by trained staff. Your radiotherapy is delivered by radiographers, both male and female.

The radiographers will call your name in the waiting area when they are ready to start your treatment and will come and talk to you before your treatment. Please feel free to ask any questions that you may have about your treatment.

When you go into the treatment room, the radiographers will ask you to lay down on the radiotherapy treatment couch in the same position that you were in on the CT couch. It is important that there is no clothing in the treatment area to help reduce any side effects. It is also important that the radiographers can see your tattoos. You will be covered with a modesty sheet of paper and the radiographers will ask you to lower or remove your underwear.

The treatment couch will then be moved closer to the radiotherapy treatment machine. The treatment machine does not touch you but will move around you. The radiographers will dim the room lights so that they can see the treatment machine lights and the lasers that they use to line up your tattoos. The radiographers will move you to get your tattoos lined up, just relax and try not to help.

When you are in the correct position for treatment the radiographers will leave the room to switch the machine on. The radiographers will operate the machine from outside the treatment room in the control area. They can hear and see you at all times so if you were to need assistance just call out or raise your hand. Please don't try to get off the bed as it is raised up in the air as you may hurt yourself in doing so.

When the machine switches on you may hear some noises such as buzzing and beeping. Don't panic - this is all very normal and these are just the noises that the machine makes whilst carrying out the



treatment. The machine will move around you to different positions. This is to ensure that the treatment area is receiving an even dose.

When the treatment has finished please remain in position until the radiographers enter the treatment room and lower the treatment couch. This is for your safety.

Your first treatment appointment may take around 20 minutes.

What happens at my other treatment appointments?

After your first treatment the process is very similar for each treatment appointment. Put your appointment card in the box outside the room for each appointment. These appointments may take around 15-20 minutes. Please make sure that you have a full bladder for each of these appointments. If you are finding this difficult, please discuss this with your treatment radiographers.

Will I see a doctor during my treatment course?

During the course of your treatment you will be monitored by your treatment radiographers and you will be seen by your consultant or one of the consultants' team. The treatment radiographers will let you know when this is. Please be aware that your treatment appointment time will be made to coincide with the consultants' clinic so that you don't have to make two visits in one day. Occasionally clinics are cancelled but your radiographers will keep you informed.

Please make sure you tell your consultant or their team of any side effects or problems that you are having. If you need any repeat medication that you have been given from your consultant it is a good idea to mention it during your clinic appointment.

What happens on the days when I also have chemotherapy?

If your consultant has prescribed you chemotherapy then you will have this once a week as well as the radiotherapy. On the day that you have chemotherapy go to the chemotherapy department first and then attend for your radiotherapy straight after. Please don't go home in between these treatments.

If you are having chemotherapy and radiotherapy then you will need to have blood tests at least once a week. The radiographers will give the correct forms to take to the blood collection room in the main cancer centre. Please get your blood tested on the day that the radiographers ask you, to make sure that your chemotherapy is not delayed.

I've also been consented for brachytherapy, when do I have that part of my treatment?

If you have also been consented for brachytherapy (internal radiotherapy) then a brachytherapy radiographer will see you during your course of external radiotherapy to discuss the treatment and provide you with more information. Brachytherapy treatment is usually carried out towards the end or after your external radiotherapy.

Is there anything that I need to do whilst receiving my radiotherapy treatment course?

Whilst receiving radiotherapy treatment it is important to make sure that you keep hydrated and drink plenty of fluids, especially if you are also receiving chemotherapy as it helps to reduce toxins that build up in your system.

It is important to keep your skin clean and maintain good levels of hygiene as this can help reduce skin soreness. You can wash with a mild and un-perfumed soap. Avoid very hot baths with bubble bath and avoid vigorous rubbing with a towel.

Radiotherapy treatment can sometimes make your skin feel dry, and it may become more sensitive or look slightly red. To help reduce this you may wish to use moisturising cream. Please check with the radiographers before using your normal products as many creams can make skin reactions worse. The radiographers will be able to advise you of creams that you are able to use. It is best to wear cotton underwear and avoid tight clothing.

Are there any side effects?

There will be some side effects and when you were consented for your radiotherapy your doctor will have explained the potential side effects. These are grouped into early and late side effects. If you have any questions about side effects please ask any member of the team.

The most common side effects often occur gradually during the course of radiotherapy treatment and may continue for a few weeks after radiotherapy treatment has finished. Late side effects are effects that are affecting you six months or longer after treatment or they can be side effects that occur weeks, months or years after your treatment has finished. Your doctor will explain all the potential side effects, even if they are quite rare.

What are the possible early (acute) side effects?

These are usually mild and should gradually settle down in the weeks after all of your radiotherapy (external and internal) has finished and should be back to normal when you have your post radiotherapy follow up appointment.

Bowel: You may experience diarrhoea. This can occur during your course of treatment but may continue for a few weeks after your treatment has finished. If you are having diarrhoea then tell your doctor or the radiographers who are treating you and they will either provide you with advice about altering your diet or a prescription for some medication to control the diarrhoea.

Bladder: When having radiotherapy to the pelvic area you may feel

that you want to pass urine more often and have a burning sensation when passing urine (cystitis).

Make sure you tell your doctor or the radiographers and they will probably ask you to provide a urine sample to rule out an infection. The likelihood is that it is the radiotherapy causing the bladder to become irritated rather than an infection and this causes similar symptoms to cystitis. However if the urine test showed an infection then antibiotics would be prescribed.

Make sure you carry on drinking plenty of fluids and persist with good hygiene.

Bladder problems should settle down in the weeks following your radiotherapy and should be back to normal when you have your post radiotherapy follow up appointment.

Nausea: Occasionally nausea is experienced by people receiving radiotherapy. If you feel nauseous let the radiographers or someone from the oncology team know and they will be able to advise you or help with a prescription for medication.

Skin: Your skin may become itchy and sore and occasionally the skin will breakdown especially if there any skin folds within the area that is being treated. The radiographers will provide you with advice about how to reduce any possible skin reactions and what to do if you find that your skin is sore. Your skin will be more sensitive to the sun even after you have finished your treatment. Avoid exposing your pelvis to the sun whilst you are receiving your treatment and during the year after completing your treatment. In the future always use sun block on your pelvis if you are going to expose it to the sun.

Tiredness: Radiotherapy can make you feel tired. This can be partly because of the travelling involved in attending the hospital as well as the treatment. This may continue for a few weeks after you have finished your treatment.

What are the possible late side effects?

Late side effects are effects that are affecting you six months or longer after treatment or effects that occur weeks, months or years after your treatment has finished. With the improvements of radiotherapy planning and treatment technologies these are much more unlikely.

The bowel, bladder or vagina may be permanently affected. In the majority of these cases the effects would be mild. These can include an increase in bowel motions, which can usually be controlled with diet, an increase in how frequently you need to empty your bladder and sometimes urgency to empty your bowels.

In a very few cases side effects may include bleeding from the bladder and a small risk of damage to the pelvic bones which could lead to a fracture or bone pain in the long term.

Occasionally treatment to the pelvic area can affect the lymph nodes in this area. This may cause swelling of the legs (lymphoedema). This is more likely if you have had surgery. There are treatments that can minimise / reduce the swelling so make sure you report it to your oncology team.

There is also a small risk of serious damage to the bladder, bowel or vagina leading to a hole or a narrowing requiring a corrective operation which may involve a colostomy or urostomy (wearing a permanent bag on the tummy for the stool or urine).

In these cases you would be reviewed by a specialist and appropriate treatment given.

Shrinking/narrowing of the vagina: Sometimes radiotherapy treatment can cause a narrowing and shortening of the vagina due to scar tissue forming. It is important to keep your vagina open to prevent problems for future examinations and to help you resume sexual intercourse if you wish to.

During your course of treatment you will be seen by a radiographer or a nurse. They will offer you a set of vaginal dilators which may help to prevent this side effect from causing you problems in the future. A nurse or radiographer will explain how to use the dilators.

Dryness of the vagina: After radiotherapy treatment the vagina can become dry. This can feel sore and uncomfortable especially during sexual intercourse. You may find that using a water-based lubricant before having sexual intercourse helps. The radiographer or nurse who provides you with the dilators will be able to provide guidance on the recommended lubricants.

Ovaries: Unfortunately when having radiotherapy for gynaecological cancers the ovaries will be affected by the radiation. Your ovaries will stop working (if they have not been removed already), and this will bring on an early menopause.

This may occur during radiotherapy or once radiotherapy has been completed. Your periods will stop and you will experience menopausal side effects such as hot flushes, night sweats and mood swings. This will be discussed with you by your doctor and you will be given appropriate help and advice.

Fertility: After your radiotherapy you will be infertile. This will be permanent so if this is an important issue for you please tell your doctor before commencing your radiotherapy so they can provide you with advice and support.

Radiation induced tumours: Radiotherapy can cause cancer and there is a very small risk of a secondary cancer developing in the area that has been treated. However because the risk of this happening is so small the benefit of your radiotherapy treatment far outweighs this risk. Your doctor will discuss this with you.

What do I need to do when I have finished my treatment?

Once you have completed your treatment it is possible that you may still experience acute side effects. These may continue for a few weeks even though you are no longer receiving any treatment. If you still have any side effects then continue with the advice that was given to you during your radiotherapy until the side effects stop. If you are unsure of what to do please ask a radiographer or your doctor before you finish

your treatment.

You will be seen by your consultant six to 12 weeks after you have completed your treatment. This appointment will be at the hospital where you originally saw your radiotherapy consultant. If you do not receive an appointment in the post within this time then please contact the secretary of your consultant who will be able to check this for you.

Your follow up appointments will continue for a number of years. During these appointments it is important that you mention any side effects or problems that have occurred since completing your treatment. This enables your medical team to optimally manage any late side effects.

Who do I contact if I have any questions or concerns?

All our staff are here to make sure your treatment goes as smoothly as possible and to support you through this difficult period. If you have any questions about your treatment or side effects, please do not hesitate to ask your doctor or any of the radiographers for advice.

Specialist advice about treatment and side effects is available from a gynaecological radiographer Monday to Friday. If no one is able to take your call, please leave a message with your name, contact number, hospital number and a brief description of your concern and a radiographer will call you back.

Specialist Radiographer 0121 371 3535

When the department is closed and you need urgent advice due to side effects or are feeling unwell please contact the oncology hotline on 07789 651543. In the event that your call is not answered, please leave a message stating your name, hospital number and contact telephone number.

Attending for treatment

Train: University is the closest train station to the hospital and is only a five to 10 minute walk away and there is also a shuttle bus running from the train station to the Cancer Centre, Heritage Building, (Queen Elizabeth Hospital).

Driving: Car parking in Car park D is free for patients attending for daily radiotherapy treatment.

Car Park D is located directly opposite the doors to the Cancer Centre, Heritage Building, (Queen Elizabeth Hospital).

The Sat Nav postcode for Car Park D is B15 2GW.

If you do drive, please bring in the ticket you have taken to access the car park and the radiographers will exchange this for a prepaid one so you may exit the car park without charge.

Hospital transport is available for patients who are not well enough to travel by their own means. If you use hospital transport it can mean spending many hours away from home and travelling long distances (you will be collected/returned on a schedule) therefore we recommend you use other transport if you can. Please ask the staff for details.

Alternatively you may arrange to stay in the Bromley Wing at the Queen Elizabeth Hospital. It is comfortable accommodation with meals from Monday-Friday for people who are able to look after themselves.

Outside treatment times you are free to entertain yourselves, have visitors or go out. Accommodation here is free and can be arranged by contacting the Bromley Wing on 0121 627 2406.

You may also find these organisations helpful:

Macmillan: www.macmillan.org.uk or 0808 8080000

The Daisy Network: www.daisynetwork.org.uk

Jo's Cervical Cancer Trust: www.jostrust.org.uk

CCTV monitors

The treatment rooms are monitored during your preparation for treatment, positioning and treatment delivery by television cameras. This is part of ensuring the accuracy of your treatment and your safety and wellbeing in the rooms at all times. We assure you that the camera image feed is live and it is not possible to make a recording.

The images are viewable on screens situated in the machine control areas. The control areas are only accessible by authorised radiotherapy staff, some who may not be directly involved with your care at that time.

If you have any concerns about your privacy or dignity that you have not already discussed then please do not hesitate to highlight your concerns during the information discussion with the radiographers at your first treatment appointment.

Radiotherapy Contact Numbers

Patrick Room

Information and support for people with cancer and their families:
0121 371 3537/9

Oncology hotline for urgent medical problems out-of-hours:
07789 651543

Gynaecological radiographer (Monday to Friday, 09:00–17:00):
0121 371 3535

Radiotherapy Treatment Rooms

Room 1 0121 371 5703

Room 2 0121 371 5076

Room 4 0121 371 5090 (Tomotherapy)

Room 5 0121 371 5085

Room 6 0121 371 5098 (Tomotherapy)

Room 7 0121 371 5084

Room 10 0121 371 5079

Room 11 0121 371 5080



The Trust provides free monthly health talks on a variety of medical conditions and treatments. For more information visit www.uhb.nhs.uk/health-talks.htm or call 0121 371 4323.

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