

Arden Cancer Centre

Radiotherapy information for patients having intra-uterine brachytherapy (with anaesthesia)

What is brachytherapy?

Brachytherapy is a type of radiotherapy treatment that is delivered inside the body, close to the tumour site. This will follow external beam radiotherapy.

A doctor will insert special brachytherapy applicators through your vagina and into your womb. This is done whilst you are under anaesthetic. During treatment, a radioactive material (usually iridium) is placed inside the applicators. After treatment, the radioactive material is withdrawn from the applicators and then they are removed from the vagina.

At the Arden Cancer Centre, we have a high-dose rate (HDR) brachytherapy machine which is used to deliver the treatment.

Consent forms

Before you have external beam radiotherapy you will need to sign a consent form. This is for the external beam radiotherapy and the brachytherapy. This indicates that:

- your doctor has explained both treatment procedures and any possible side effects to you and
- you agree to go ahead with treatment.



Patient Information

You will meet with your consultant before you finish your external beam radiotherapy. At this appointment, you will also be asked to fill in separate consent forms to agree to the anaesthetic and the positioning of the brachytherapy applicators.

Your consultant may inform you that they will also insert very thin tubes, called needles, through the applicators. They give extra places to put the radioactive source, allowing your doctor to shape the radiotherapy dose to your anatomy. This process is called interstitial brachytherapy.

Please let us know if you have any allergies, including a latex allergy.

Preparation for treatment

Just before the brachytherapy procedure, you will be given an anaesthetic so that you don't feel any pain when the applicators are inserted into your womb. Most patients receive a spinal anaesthetic. A spinal anaesthetic is when a small amount of local anaesthetic is injected into the fluid surrounding your spine. This temporarily 'freezes' the nerves, making your lower body and legs numb for the duration of the procedure and for a short while afterward. In some cases, a general anaesthetic may be used.

In preparation for the anaesthetic, you need some tests before completing your external beam radiotherapy treatment. This is known as a pre-operative assessment. It is carried out in the outpatient department by a nurse. These tests may include blood tests, an ECG (heart monitoring) and a nasal swab. Some patients may also need to see an anaesthetist at this stage. The brachytherapy radiographer or Macmillan information and support radiographers will discuss this with you and arrange an appointment.

You will also need an MRI scan towards the end of your external beam radiotherapy treatment, before the brachytherapy. This will be arranged for you.

Before your admission to the ward for brachytherapy, you may need to do a Covid-19 lateral flow test. Please let the brachytherapy radiographer or

Patient Information

Macmillan information and support radiographers know if you don't have a lateral flow test.

If your bowels are not open daily before admission, we recommend the use of laxatives. This will be discussed with you towards the end of your external beam treatment.

You will usually be admitted to the Oncology Ward 35 the afternoon before your first treatment. You will stay on the ward for the duration of the brachytherapy.

We have summarised a **typical** brachytherapy schedule in the table below. For some patients, this schedule can be different but any changes will be discussed with you.

Day	Activity
Monday	Admission to ward. Blood tests. Pregnancy test. No food after midnight. Clear fluids only after midnight.
Tuesday morning	Theatre. Applicators inserted under anaesthetic. MRI/CT scans.
Tuesday afternoon / evening	Treatment. Applicators removed.
Wednesday	No treatment. Blood test. Must remain in hospital. No food after midnight. Clear fluids only after midnight.
Thursday morning	Theatre. Applicators inserted under anaesthetic. MRI/CT scans.
Thursday afternoon / evening	Treatment. Sleep with applicators in overnight.
Friday morning	CT scan.
Friday afternoon	Treatment. Applicators removed. Discharge home.

Patient Information

When you are admitted to the hospital, additional blood tests will be done. An anaesthetist may visit you on the ward to make sure that you are well enough to receive an anaesthetic. They will advise you about your medicines and you may be given additional medicines before you go to the theatre. You may be asked to take a pregnancy test if you are under the age of 55, as this is a requirement when having an anaesthetic.

On the morning of the anaesthetic, it is important to limit your food and drink intake. Continue to keep hydrated by sipping water until the theatre staff come to collect you. Please follow the timetable below:

Time before general anaesthesia	Fluid or food intake
From midnight	No Solid food, milk, chewing gum. Please do not smoke.
Midnight to 6am	Clear fluids (black coffee/tea, squash or preoperative carbohydrate drink)
6am to surgery	Sips of water only

We recommend that you avoid eating baked beans, drinking fizzy drinks and any other food/drink that may cause you to have gas during your stay.

What to bring into hospital

Most patients find it helpful to bring something to read or watch during their stay. As you will be lying flat on your back for periods of time, it is useful to bring a water bottle with a sports lid on it.

Other useful items include pyjamas, toiletries, a mobile phone and charger, as well as non-perishable snacks and soft drinks (but no fizzy drinks). The ward can be very warm, so bringing a small fan may help you to stay comfortable.

Patient Information

You will be asked to **remove any jewellery and piercings** before you go to theatre. Where possible, please leave these at home and **remove any false nails**, varnish or gel from your fingers before coming into the hospital. Wedding rings can be covered with tape on the day.

Theatre procedure:

- On the day of your treatment, you will be taken to the hospital theatre at around 8.30am, where you will be given an anaesthetic. The doctor will then insert applicators, and needles if needed, into the vagina, cervix and womb. The number of applicators and needles used can vary. This procedure normally takes about 45 to 60 minutes.
- In theatre you will need to have a urinary tube (catheter) inserted into your bladder to drain your urine. This is because once the applicators are in place you will need to stay in bed and cannot walk around.
- After the procedure, you will be taken in your bed to recovery area. You will be monitored by the recovery nurses for a short time. You will then be taken for a CT scan and/or MRI scan of your pelvis to check the position of the applicators. These scans help to plan your treatment.
- You will be taken back to the ward while your treatment plan is being prepared. **You must stay in bed** during this time so that the applicators do not move from their position in the vagina. You will be able to eat and drink but you will need to lie quite flat.
- You may experience some pain or discomfort as the anaesthetic wears off. **Please ask the ward nurses for pain relief as often as you need it.**

Treatment

While you wait on the ward, your consultant plans the treatment with a physicist or dosimetrist. This process can take several hours. Once the treatment plan is ready (usually in the late afternoon or evening), you will be collected from the ward in your bed and taken to the brachytherapy treatment room in the Arden Cancer Centre.

Once in the treatment room, the applicators will be connected to the brachytherapy treatment machine. The staff will leave the room and the treatment will begin. The brachytherapy treatment team will be able to see you at all times via a television monitor. They are able to turn the machine

Patient Information

off and enter the room if you wave or call to them. Generally, treatment lasts between 5 and 20 minutes. We will be able to tell you how long before we leave the room. You will not feel anything from the treatment.

Please note that we have both male and female staff working in brachytherapy.

When the treatment is complete, the applicators and the catheter will be removed straight away, unless you are keeping them in overnight (usually on Thursdays). This process only takes a few minutes but can be uncomfortable.

Additional pain relief, such as Entonox gas (gas and air) is available. There may be some bleeding from the vagina when the applicators are removed. Usually, this is only slight, but we will take you back to the ward in your bed and ask you to stay in bed for 30 minutes, by which time the bleeding should have reduced.

Pressure sores

Because you will be lying flat on your back for a long-time during brachytherapy, there is an increased risk of developing pressure sores on your lower back or buttocks. There are several ways to help reduce this risk:

- We may put some cream to your skin.
- We will put a disposable sheet underneath you which will keep the moisture away from your skin and help to keep your bed sheets dry. We will change this sheet as needed, please inform the ward nurses if you feel wet.
- When you don't have any applicators in place (Tuesday evening and Wednesday), you must keep mobile. Do not lie in bed. Sit up in your chair when you need to rest. Try to sleep on your side if you can and walk around where possible.

Complications

Occasionally, during the insertion of the applicators in theatre, one of the applicators can go through the wall of the uterus. This is known as a

Patient Information

perforation. The doctors may not know that this has happened until they look at the CT and MRI scans.

The perforation will heal on its own over time and is unlikely to cause you any problems, but you may need antibiotics and an overnight stay in the ward.

When a perforation happens, it may be possible to continue with the brachytherapy treatment, but sometimes we are unable to give treatment that day and the applicators will be removed.

Will you feel sick?

Nausea (feeling sick) and vomiting (being sick) are uncommon and are usually related to the anaesthetic. Anti-sickness medicines will be prescribed if needed. Eating light meals and drinking plenty of fluids can also help.

Going home after treatment

- You will need a friend or relative to take you home.
- You will be discharged from the ward when the nursing staff consider that you have recovered from the procedure.
- If you have had a spinal anaesthetic, a nurse will need to be present when you first get out of bed and stand up.
- You may experience slight bleeding after the treatment. This usually stops after a few days. If you are concerned, please contact the Brachytherapy radiographer, Macmillan information and support radiographers or the acute Oncology Service (see numbers below).
- You may be given some tablets to take home in case you experience any diarrhoea.

What are the side effects of brachytherapy?

Side effects are normally classed as acute (early) or long term (late). Please read these alongside your previous information for patients undergoing gynaecological radiotherapy.

Patient Information

Acute side effects:

- You may feel the need to pass urine more often than normal and this may be associated with a stinging sensation. If this continues, take a urine sample to your GP and drink plenty of fluids.
- You may experience episodes of diarrhoea, an urgent need to open your bowels and occasional rectal bleeding. Medication can be prescribed for you to help with the diarrhoea.
- Vaginal dryness, soreness and some bleeding from the vagina can also happen. This will be assessed before you leave the hospital.
- Vaginal discharge is common. If it becomes excessive, see your GP or contact the Brachytherapy radiographer or Macmillan information and support radiographers on **024 7696 7290**.
- Tiredness can be a common effect of radiotherapy. If you feel tired, you may need to rest, but evidence has shown that gentle exercise can help. More information on this is available from Macmillan Cancer Support.
- Lying flat on your back may have caused a patch of sore skin to develop near or on your buttocks, known as a pressure sore. This patch of skin may be painful and the nurses will provide you with cream to take home. It is important to keep this area of skin clean and dry and that you keep mobile.
- These side effects should settle within 4 to 6 weeks after the completion of your brachytherapy treatment.
- In young women with functioning ovaries, radiation treatment to the pelvis may result in infertility due to early menopause. **Contraception in the form of a condom should be used for at least 3 months after the treatment.** You may also need Hormone Replacement Therapy (HRT) after treatment, which your consultant will discuss with you.

Long term side effects:

These may occur months to years after completion of treatment and may include:

- Vaginal narrowing - whether or not you are sexually active, you will receive a letter to take to your GP to get a pack of vaginal dilators. These dilators help maintain the opening of the vagina, which makes future clinical examinations and sexual intercourse more comfortable. This will be discussed in detail during your treatment. If you do not

Patient Information

receive the letter or have any difficulties getting the dilators, please let the brachytherapy radiographer or Macmillan information and support radiographers know.

- Vaginal dryness - you will need to use a vaginal lubricant when intercourse resumes and while using the vaginal dilators.
- Bladder changes - can include frequency of urination, reduced bladder capacity and blood in the urine.
- Bowel changes - can include diarrhoea, urgency, narrowing of the bowel and bleeding from the rectum.

Very rarely, bladder or bowel fistulae can develop. A fistula is an abnormal opening between two adjacent organs that are not normally connected. There is about a 1% to 2% chance of this happening.

These long-term changes can be irreversible and **may** need investigation and management. In very rare cases, if complications become sufficiently severe, surgical referral and intervention will be considered.

A booklet titled “Understanding pelvic radiotherapy,” produced by Macmillan Cancer Support, provides detailed information about potential late side effects. Please ask your doctor or radiographer if you would like a copy.

Follow up appointments

When your course of treatment is complete, you will have a follow-up telephone call from a radiographer around 2 weeks after your treatment.

You will also receive an appointment at an outpatient clinic for about 6 weeks later to see your doctor. This is to monitor your progress, assess your response to the treatment and manage any side effects you may be experiencing. If you haven't received this appointment within 3 weeks of completing treatment, please call the Arden Centre reception on 024 7696 7272.

If you have any problems before your follow up appointment, please contact the brachytherapy radiographer on 024 7696 7294 or Macmillan information and support radiographers on 024 7696 7290.

Useful telephone numbers

Brachytherapy Information and advice:

Brachytherapy radiographer: **024 7696 7294**

Macmillan information and support radiographers: 024 7696 7290

Monday to Friday, 9am to 5pm

Arden Cancer Centre Reception: 024 7696 7272

Monday to Friday, 9am-5pm

Acute Oncology (24-hour emergency advice only) 024 7696 4000

Ask for Bleep 1641

Information and Support

Cancer Information Centre: 024 7696 6052

We can offer free support, practical advice and information to anyone affected by cancer. No appointments are required and an answering machine facility is available. Open Monday to Friday 9am to 4pm, the Centre is located on the ground floor in the main entrance.

Macmillan Cancer Support: 0808 808 00 00

www.macmillan.org.uk

You may find these booklets and resources from Macmillan Cancer Support useful:

- Understanding Radiotherapy
- Understanding Pelvic Radiotherapy
- Coping with Fatigue
- Managing the bowel late effects of pelvic radiotherapy

Patient Information

- Managing the bladder late effects of pelvic radiotherapy
- Macmillan Toilet Card

Cancer Research UK: 0808 800 4040

www.cancerresearchuk.org

NHS advice - use the 111 service

Jo's Cervical Cancer Trust

www.jostrust.org.uk

Tel: 0808 802 8000

Pelvic Radiation Disease Association

www.prda.org.uk

Patient satisfaction

We hope that you have found this booklet helpful. We welcome your comments on the care that you experience, and the service that we offer within the Arden Cancer Centre.

We ask that specific complaints be addressed to a member of staff. This is so they can be dealt with quickly and efficiently, in line with University Hospitals Coventry and Warwickshire NHS Trust complaints policy.

The Trust has access to interpreting and translation services. If you need this information in another language or format, we will do our best to meet your needs.

This Trust operates a smoke free policy. Help to stop smoking can be obtained from your local NHS Stop Smoking Service: 0300 123 1044 or the hospital's stop smoking service 024 7696 4760.

Patient Information

Did we get it right?

We would like you to tell us what you think about our services. This helps us make further improvements and recognise members of staff who provide a good service.

Have your say. Scan the QR code or visit:

www.uhcw.nhs.uk/feedback



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