

High dose rate (HDR) brachytherapy (internal radiotherapy) to the cervix

Oncology Patient information

What is brachytherapy to the cervix?

Brachytherapy is a way of delivering radiation directly into the cervix, while minimising exposure to the surrounding tissue. It is used in combination with external beam radiotherapy and sometimes chemotherapy, in order to treat cancer of the cervix.

The treatment is usually given in four sessions over two weeks, usually split into two consecutive sessions per week. You will need to stay overnight on the ward, but normally only for one night on both weeks, as indicated below. The procedure involves having a spinal anaesthetic, or sometimes a general anaesthetic if this is not possible, so that small tubes (applicators) can be positioned inside the vagina next to the cervix.

You will have your treatment in the brachytherapy suite, located within the Poole hospital radiotherapy department.

Each Tuesday, please arrive in radiotherapy at **8am**:

1. Tuesday (overnight stay) 2. Wednesday
3. Tuesday (overnight stay) 4. Wednesday

Fasting and preparation instructions are included in this leaflet.

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Preparation for brachytherapy

Pre-assessment

You will receive an appointment to attend a pre-assessment to check your suitability for an anaesthetic. Please report to pre-op assessment which is located in the pink zone, level 0, within outpatients at Poole hospital. Please let the team know if you need any help to get to the department. The pre-assessment will involve going through your medical history and a few routine tests such as taking your height, weight, and blood pressure.

Regular blood tests

Sometimes chemotherapy causes certain components of your blood to become very low. Regular monitoring is essential as it may affect which type of anaesthetic can be used. A member of the brachytherapy team will explain when to go for blood tests and if necessary, arrange a blood transfusion or special injections to boost your levels.

MRI scan

You will receive an appointment to have an MRI scan, or CT scan if you are unable to have MRI, the week before you are due to start brachytherapy treatment. This will help your oncologist plan your brachytherapy.

Before both Tuesday admissions

Please ensure you:

- have a bath or shower
- remove make-up, nail varnish, or acrylic nails from fingers and toes
- remove all jewellery, including body piercings.
- arrange for a responsible adult to collect you by car upon discharge and stay with you overnight.
- have a supply of pain relief at home, such as paracetamol or ibuprofen.

If you develop a cough or cold just before admission, or if you cannot attend for any reason, please call the brachytherapy team as soon as possible on 0300 019 2047.

Fasting instructions

It is essential you follow these instructions before both Tuesday admissions:

- **Do not eat anything** after **midnight** the night before, including sucking sweets and chewing gum
- Drink plain, still **water only** until **6am**
- **Do not drink** after **6am**
- Take your usual morning **medications** at / before **6am** unless advised otherwise

Items to bring with you

- Dressing gown and slippers or flat soft shoes.
- An overnight bag.
- Something to keep you occupied such as a book, a magazine, an electronic reader/tablet and headphones.
- All medications you are currently taking.
- Sanitary pads.
- A case for glasses and/or hearing aid if worn.
- A contact number for the person collecting you.

Please leave jewellery and valuables at home.

What to expect at Tuesday sessions

One of the brachytherapy team will meet you in radiotherapy on arrival and help you prepare for treatment. You will also meet your anaesthetist and the consultant carrying out your procedure. They will discuss the details of your anaesthetic and procedure with you. This is also an opportunity for you to ask questions.

Pre-clerking

Before the session can begin, you will be clerked-in and asked to change into a hospital gown. You may wish to wear a dressing gown over the top. You will also need to wear surgical stockings to help prevent blood clots (deep vein thrombosis - DVT). Please wear slippers to prevent slipping and falls.

You will be asked to sign a form that states you consent to the procedure. Your oncologist or a brachytherapy radiographer will have explained exactly what the treatment involves. This includes the intended benefits, alternatives and any risks or possible side effects. However if you have any questions or concerns, please do not hesitate to raise them at any point.

Anaesthetic and insertion of applicators

Usually a spinal anaesthetic is preferred because it lasts for the entire length of the procedure. It means that although you are awake, you will not feel any pain or discomfort from the waist down. If you are feeling very anxious, your anaesthetist may offer mild sedation for the first part of the procedure to help relax you and make you feel sleepy.

In some circumstances, a spinal anaesthetic is not suitable and a general anaesthetic is given instead. This means you will be asleep while the applicators are inserted into the vagina. It is only possible for you to remain asleep during the insertion part of the procedure, but you will be supported with additional pain relief for the entire duration.

Once the anaesthetic has taken effect and you are lying down comfortably, a catheter is inserted into your bladder so you can pass urine (wee). The applicators are guided into the correct position inside the vagina using abdominal ultrasound. If awake, you may feel some pressure while this is being done, but should not feel pain.

Treatment planning

Next, you will be taken on your bed to the radiotherapy CT scanner, and then to the MRI department. Both the CT and MRI scans are used in order to plan your brachytherapy treatment.

You will then be taken to the oncology ward to have a 'patient controlled analgesia' (PCA) fitted. This allows you to administer your own pain relief as required during your overnight stay. While your PCA is fitted, the planning of your treatment will be carried out

Brachytherapy treatment

Once the treatment plan is ready, you will be collected from the ward and taken to the brachytherapy suite. The radiographers will connect the applicators to the brachytherapy treatment machine. Treatment usually takes 10 - 15 minutes. You will need to remain still and must be in the room by yourself. However, the radiographers can see you on a camera and communicate with you via an intercom. If necessary they can interrupt the treatment and enter the room. You will not feel anything, but may hear noises coming from the treatment machine. Once the treatment is finished, the radioactive source returns into the machine and the radiographers come back into the room.

Transfer to the ward

Once the treatment is complete you will be taken back to the oncology ward for an overnight stay. The applicators will still be positioned inside the vagina and the catheter will stay in place so you can pass urine. Due to the applicators remaining in place overnight, you will not be able to get out of bed or move around very much, but you will be able to use your PCA to administer pain relief to ensure you are as comfortable as possible. The back of the bed may be raised only very slightly to make eating and drinking possible.

What to expect at Wednesday sessions

In the morning, you will be collected from the ward and returned to the brachytherapy suite. You will be taken into the radiotherapy CT scanner for another CT scan. This is to confirm that the applicators have remained in the same position. If the applicators have changed position, a new plan will be made for your treatment. Here you will receive your second treatment of the week, in exactly the same way as the first.

Removal of applicators

After the treatment is finished, the applicators and catheter will be removed. Additional pain relief can be given using the PCA for the applicator removal. You will then be taken back to the ward in order to be discharged.

Going home

Once you are feeling well enough and fit for discharge, you can go home.

Please arrange for a responsible adult to collect you from the ward by car.

For the rest of the day, please ensure that you:

- rest at home.
- take pain relief if necessary, as you may experience some abdominal tenderness and 'period like' pain.
- drink plenty of fluids.
- wear a sanitary pad, although blood loss should be minimal.
- do not drive a car, operate machinery, make vital decisions, or sign legal documentation.
- do not drink alcohol.

Are there any side effects?

You will most likely be experiencing some side effects as you near the end of external beam radiotherapy. Brachytherapy should not make them too much worse, but may cause them to go on a little longer.

It is possible you may experience the following:

Short term:

- **Tiredness** - you may feel like you need to rest more, but should feel able to carry out your normal activities. Light exercise can help.
- **Bladder** - you may feel the urge to urinate more frequently and/or a burning sensation when you pass water. Drinking plenty of fluids will help, but avoid caffeinated drinks (e.g. tea, coffee, and cola). If symptoms last longer than a few days or your urine develops an unpleasant odour, contact the brachytherapy radiographers or your GP.
- **Bowels** - you may experience mild diarrhoea. This can be kept under control by reducing the amount of fibre in your diet. If diet is not effective, you may wish to take loperamide (Imodium®) as directed on the packet. It is important to drink plenty of fluids too.
- **Vaginal bleeding (spotting) discharge** - a small amount of bleeding or discharge is to be expected, so ensure you have some sanitary pads with you. If you are concerned about bleeding, or your discharge develops an unpleasant odour, contact the brachytherapy radiographers or your GP.
- **Mild pain/discomfort** - you may experience cramps (similar to period pains) or tenderness inside the vagina. Taking over the counter painkillers (e.g. paracetamol) can help. Using a water-based lubricant can help ease vaginal dryness.

Long term

These are symptoms that may occur months to years after treatment finishes.

- **Bladder/bowel** - there is only a very small risk of minimal changes to your normal habits.
- **Stenosis (stiffening, shortening, and dryness) of the vagina** - untreated this can make both clinical examinations and sexual intercourse uncomfortable. Regular use of vaginal dilators after treatment finishes can prevent vaginal stenosis or slow down its progression. Therefore, you will be offered a set of vaginal dilators to take home. A gynaecological nurse specialist or brachytherapy radiographer will explain how and when to use the dilators, and also answer any questions you may have.

Follow-up

A follow up appointment should be sent out in the post one to two weeks post treatment. It usually takes four to six weeks to see a consultant.

Contact details

Poole

Brachytherapy radiographers

Telephone: 0300 019 2047

Gynaecology nurse specialists

Telephone: 0300 019 8265/8261

Radiotherapy department

Telephone: 0300 019 8789

Bournemouth

Gynaecology nurse specialist

Telephone: 0300 019 4938

Dorchester

Gynaecology nurse specialist

Telephone: 01305 255719

Useful contacts and sources of information:

Macmillan Cancer Support Line (seven days a week, 8am - 8pm)

Website: www.macmillan.org.uk

Telephone: 0808 808 00 00

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or email uhd.patientexperienceteam@nhs.net.

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