



A guide for patients receiving Intra-Uterine Brachytherapy

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What is brachytherapy?

Brachytherapy is also known as internal radiotherapy and is used to deliver a high dose of radiotherapy to the cervix (neck of the womb) and vagina.

Brachytherapy involves putting small applicators into your vagina or cervix under a general anaesthetic. The radioactive source (the material that gives off the radiation) is put into the applicators using a treatment machine which is operated by radiographers.

The treatment machine can safely deliver the radioactive source to the right place through the applicators and it is removed when the treatment is over. It delivers a high dose of radiotherapy directly to the area in a short period of time whilst minimising dose to surrounding tissue. You will have this done 2 or 3 times. You should not feel anything from the treatment.

Brachytherapy treatment is delivered on its own or as a combination with a course of external beam radiotherapy. Your doctor will discuss with you which course of treatment is recommended. If you are scheduled to have external beam radiotherapy, brachytherapy is usually carried out at the end of the course of external beam treatment.

It is important to make sure 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 brachytherapy?

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

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 when I come for my brachytherapy?

When you are first consented for radiotherapy your doctor will explain if this type of treatment is needed. If you are scheduled to have external beam radiotherapy, brachytherapy is usually carried out at the end of the course of external beam treatment. During your course of external beam radiotherapy a brachytherapy radiographer will come and see you to answer any questions that you have about your brachytherapy treatment and they will give you your treatment appointments.

A few days before

You will have an appointment at the pre-assessment clinic with the nursing and medical staff to make sure that it is safe to give you an anaesthetic. You may have a blood sample taken, a heart trace (ECG) and an X-ray. You may not need to have all of these tests done. You will be given a pack of medications to take once you get home; the nurses will give you instructions on how to take them.

The night before

Take the medications in the pack as instructed. It will either have some tablets to slow down your bowel actions if you have been having some diarrhoea. If you are not having diarrhoea you will have been given suppositories to insert. This is because once you have the applicators in place you will be unable to sit up or

stand. This is to prevent the applicators from moving. You need to remain in bed until the treatment has finished and by having the medication provided it will make this more comfortable. If you do need to pass a stool after the applicators have been put in place then just let the radiographers or nurse know.

It is important not to eat or drink before an anaesthetic. Please do not eat after midnight the night before you are due to have your treatment. You may drink water (but no other fluids) until 6am of the morning of your treatment.

If you normally take any medication in the mornings the staff at the pre-assessment clinic will advise you if you can take them.

On the day

On the morning of your internal radiotherapy you will be admitted to the brachytherapy suite in the Radiotherapy Department. You will be asked to put on a theatre gown and special surgical stockings. The surgical stockings help prevent blood clots from forming in your legs and are a precaution for all patients attending theatre. This is a good time to go to the toilet. You will be visited by an anaesthetist, to discuss your anaesthetic and types of pain control. The nurses will go through a checklist with you to make sure you are ready to go to theatre.

In theatre

A small needle is put into the back of your hand and you will be given a short anaesthetic. This is to make sure that you do not feel anything whilst the applicators are being put in. When you are asleep the doctor will put the applicators in and put packing around them to keep them in place. They will also put a thin rubber tube into your bladder (catheter). This catheter drains away any urine into a bag that can be emptied, so when you wake up you will not need to get up to pass urine.

After theatre

After waking up from the anaesthetic you may have an oxygen mask on and nurses will be recording your blood pressure and pulse. When you have recovered from the anaesthetic a nurse or radiographer will come and collect you, and you will be taken to the radiotherapy CT scanner on a bed.

CT

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Planning

Each treatment is planned for the individual so this can take up to 2 hours to do. Whilst the treatment is being planned you will be taken back to the brachytherapy recovery area. You will be offered lunch if you feel like eating and given pain relief if you need it. Once your treatment has been planned the radiographers will check all the treatment information and take you into the brachytherapy treatment room.

During treatment

The radiographers will attach some small tubes to the applicators that you have had inserted which also attach to the treatment machine. Once these are attached the radiographers will leave the treatment room so that they can switch on the treatment unit.

The radiographers are watching you at all times using cameras and they can also hear you. The treatment is completely painless

but if you did need the radiographers they would come back to you straight away.

Whilst the treatment is being carried out you may hear lots of noises such as some beeping and buzzing. Don't panic this is all very normal and it is just the noises the machine makes whilst carrying out the treatment.

The treatment will only take a few minutes.

After the treatment has finished you will be offered some pain relief so that the applicators, packing and catheter can be removed. The procedure will be explained to you as they are removed. It will help if you try to remain as relaxed as possible.

The whole procedure from start to finish will take a few hours.

Before and after

Before you come for your internal radiotherapy you may need to have an MRI scan of your pelvis to help the planning of your treatment. If you are having external beam radiotherapy this will normally be organised sometime during the 3rd-5th week of your treatment. The appointment will be sent to you from the hospital where you were originally seen by your consultant.

You will also be seen by a radiographer who will talk to you about the internal radiotherapy and will provide more information on any potential side effects and discuss your appointment times.

You will have a follow up appointment with your doctor approximately 6-8 weeks after you have completed your treatment. If you have not received an outpatient appointment by then please contact your oncologist's secretary.

Side effects

When you were consented for your radiotherapy your doctor will have explained the potential side effects. These are usually grouped into early and late side effects.

The most common side effects often occur soon after radiotherapy and these may continue for a few weeks after your 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.

Possible early side effects?

These side effects are usually mild and gradually settle down in the weeks after your internal radiotherapy 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 the doctor or the radiographers who are treating you and you may be provided with a prescription for some medication to control the diarrhoea.

Bladder: When having internal radiotherapy to the pelvic area you may feel that you want to pass urine more often and have a burning sensation when passing urine.

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 in the pelvic area.

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

Perforation of the Uterus: When the applicators are being inserted it is possible to perforate (make a small hole) the uterus. This would be shown up when the pelvic CT scan was being carried out. If this occurred then you would be given appropriate treatment by your consultant.

Vagina: After you have had the brachytherapy it is not unusual to have a small amount of bleeding and or discharge from the vagina. If it becomes heavy or does not clear up then contact your doctor.

You may also be a little sore after the internal radiotherapy due to the applicators and packing that help keep the applicators in place. You can be prescribed pain control if this is the case.

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.

Possible late side effects?

These may occur months or years after finishing your course of radiotherapy. With the improvements of planning this is much more unlikely.

The bowel and/or bladder may be permanently affected. With the improvements of planning this is much more unlikely. In the majority of these cases the effects would be mild. 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, narrowing of the bowel and a small risk of damage to the pelvic bones which could lead to a fracture or bone pain in the long term. 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.

Occasionally treatment to the pelvic area can affect the lymph nodes in this area. This may cause swelling of the legs. 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.

Shrinking/narrowing and dryness 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. The nurse or radiographer will explain how to use the dilators. 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.

Menopause: When having radiotherapy for gynaecological cancers the ovaries will be affected by the radiation and stop working (if they have not been removed already), this will bring on 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. Infertility will be permanent so if this is an important issue for you please tell your doctor so they can provide you with advice and support.

Radiation induced tumours: there is always the risk that being exposed to radiation may in the future cause a new cancer within the treatment area. However the risk of a second cancer developing is so small that the benefits of the treatment far outweigh the risks. Your Doctor will discuss this with you.

Questions

You will have a follow up appointment with your doctor approximately 6-8 weeks after you have completed your treatment.

If you have any questions regarding the information that has been given to you, please do not hesitate to ask your doctor or any of the radiographers for advice.

The radiographers can be contacted on 0121 371 5086 Monday to Friday or 0121 371 3556 on a Monday, Wednesday and Friday morning.

You may also find these organisations helpful:

Macmillan www.macmillan.org.uk or 0808 808 0000

The Daisy Network www.daisynetwork.org.uk

Jo's cervical cancer Trust www.jostrust.org.uk

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 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 accessed

by authorised radiotherapy staff, some of whom may not be directly involved in 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.

Please use the space below to write down any questions you may have and bring this with you to your next appointment.

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