NHS
Royal Berkshire
NHS Foundation Trust

Brachytherapy treatment for prostate cancer - Iodine-125 seed implant

Information for patients: initial consultation to follow-up

You have been given this information leaflet as you are considering treatment, or are being treated, for prostate cancer with brachytherapy. It also provides useful information for families and carers. It can be read in conjunction with other leaflets or media but it is important to remember that this is the approved information in regard to prostate brachytherapy at the Royal Berkshire NHS Foundation Trust.

There will be many different health professionals involved in your care and there will be a clear plan for any aftercare. This leaflet will answer some of the questions you may have but if there is anything you and your family require further information about, please ask your oncologist or Clinical Nurse Specialist (CNS).

Contents

Prostate brachytherapy: The essential information

Prostate brachytherapy is a way of using localised radiotherapy to treat prostate cancer that is contained within the prostate gland. The intended benefit is to cure the cancer.

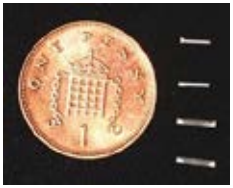
The main alternative treatments for localised prostate cancer are:

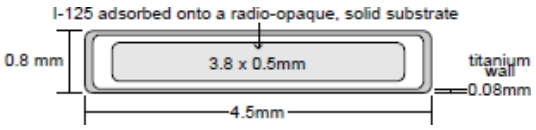
- Active surveillance (a close monitoring programme);
- Radical prostatectomy (surgical removal of the prostate);
- Radical external beam radiotherapy (external x-ray treatment);
- Hormonal therapy (testosterone-reducing medication).

Data suggests brachytherapy to be as effective a cure as radical prostatectomy or external beam radiotherapy (EBRT) in men who are suitable for treatment.

During prostate brachytherapy, the oncologist (cancer consultant) places radioactive iodine seeds, directly into the prostate gland. They can be positioned throughout the gland with a high degree of accuracy by using an ultrasound probe, inserted into the rectum, to guide the procedure. A catheter (a plastic tube) is also inserted into the urethra (the passage through the penis and prostate that leads to the bladder) to ensure the images are as clear as possible.

Each seed (titanium casing) is about 5mm in length and 1mm wide, approximately the size of a grain of rice. The radioactive source (Iodine-125) is encapsulated within the seed casing.





Each seed irradiates only a very small area of the prostate but when combined together, they treat the entire prostate gland. The seeds stay in the gland permanently and give out gradually decreasing amounts of low-level radiation.

Since only a small area is affected by the radiation of each seed, relatively little radiation reaches the other healthy organs nearby. This helps keep side effects to a minimum.

Urinary side effects from brachytherapy can be troublesome and prolonged in a small number of men. Brachytherapy may not be suitable for men who already have severe difficulties passing urine because the treatment can make these symptoms worse. The most common urinary side effects are: increased frequency, urgency, and difficulty passing urine, but these generally subside a few months following the implant.

Rectal side effects are generally well tolerated and short lived. These can include increased frequency and flatulence, and loose stools.

Impotence can sometimes be a problem, but there is a lower associated risk after brachytherapy than after radical prostatectomy, and about the same after EBRT.

As Iodine-125 gives off very low levels of radiation, safety precautions are minimal. Immediately after the implant it will be important to ensure close contact with children and pregnant women is kept to a minimum for two months. We generally advise that you can spend unlimited time with them, ensuring you are at least a sofa length away (0.5m). You will also be required to carry a Radionuclide Instruction Card for three years and bring it to the attention of any professional concerned with your care.

Throughout your brachytherapy journey, a team of Clinical Nurse Specialists (CNS) will be readily available to support you. They have extensive knowledge and experience in uro-oncology nursing and are a good link between you and other members of the team involved in your care. They can also recommend or refer you to other specialist support services that you may not be aware of.

Who can have prostate brachytherapy?

Brachytherapy is now widely recognised as an alternative to both radical surgery and EBRT for some patients. It is not the only effective treatment for prostate cancer but it appears to be associated with a lower level of side-effects.

You may be treated by other conventional treatments depending upon the precise nature of your disease. Your consultant will advise whether your prostate cancer is suitable for the treatment.

Patients ideally suited to brachytherapy are those where there is a low chance of spread of the cancer cells outside the prostate gland. Occasionally, where there is a higher likelihood that the cancer may have spread to the tissues in close proximity to the gland, it may be appropriate to undertake a course of EBRT and/or hormone therapy (see below).

You will generally be suitable for brachytherapy if:

- The tumour feels confined to the prostate gland when felt by rectal examination;
- Your blood PSA (Prostate Specific Antigen) reading is less than 20ng/ml at the time of diagnosis;
- Your Gleason grade is 8 out of 10 or less.

You should also not be suffering with severe urinary symptoms, such as a weak stream or difficulty in emptying your bladder, as brachytherapy may make these symptoms worse.

Your urinary functions will be assessed with a 'flow test' and an International Prostate Symptom Score (IPSS) before a decision to undertake brachytherapy can be made.

In a small number of cases, a limited Trans-Urethral Resection of the Prostate (TURP) may be appropriate to enable you to receive a brachytherapy implant. This procedure is used to remove prostate tissue which makes it difficult to pass urine.

Following the TURP, it will be necessary to wait two or three months before your brachytherapy can be undertaken.

Ideally, your prostate gland will be less than 100ml. If the gland is too large it may make it difficult to insert the needles past the bony skeleton.

You may need blood tests, ECG (electrocardiogram – to check the hearts rhythm and electrical activity) and chest X-ray performed prior to the procedure, to ensure you are fit for the general anaesthetic (GA) - you will be asleep. Our team will decide which tests are necessary.

If there is a possibility that you wish to have children following brachytherapy, it will be important to discuss this with your oncologist, prior to treatment, so that your fertility options can be discussed.

Combined therapy

Hormone therapy helps control prostate cancer by stopping the hormone testosterone from reaching the prostate cancer cells. It can be a treatment option for many men with prostate cancer, but it is used in different ways, depending on the stage of the cancer.

If there is a higher likelihood that your cancer could spread to tissues in close proximity to the gland, your oncologist may suggest a three month course of hormones to be taken before and after the implant.

In a small number of higher risk cases it may also be suitable to combine brachytherapy with a course of hormonal therapy and EBRT. A five week course of EBRT will commence two months after the brachytherapy implant and allows a greater margin of tissue around the prostate gland to be treated.

The prostate brachytherapy procedure

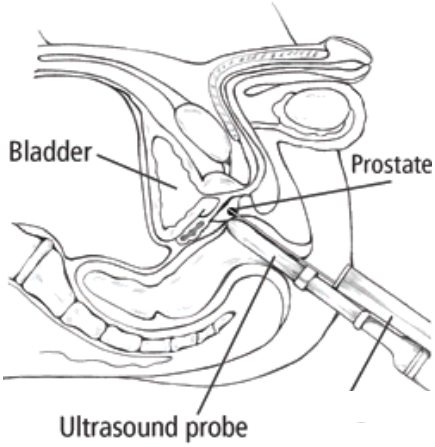
Following agreement between yourself and the oncologist to proceed with brachytherapy, you will receive a telephone call from our urology team to schedule your appointments. This is usually three weeks prior to the proposed treatment (implant) date.

We plan and perform the implant in one theatre session, under a GA. You will visit the hospital just twice, once for pre- operative assessment and prostate volume scan, and once for the implant. For the implant, you may need to stay in hospital overnight.

Prostate volume scan and pre-operative assessment

You will be required to attend the hospital's Urology Procedures department two to three weeks before the implant to have an ultrasound scan of your prostate.

A small ultrasound probe is inserted into the rectum (similar to the biopsy procedure) and the volume (size) of your prostate gland is measured. This enables an appropriate number of seeds to be ordered for your implant.



You will also be required to attend the Pre-operative Assessment Clinic on the same day. This is for the routine medical checks required before a GA, including blood tests and ECG. Please bring a list of any medications you are currently taking.

You will be required to complete a questionnaire to ensure we have all the necessary information regarding your current health.

If there are any changes in your health between your pre-operative assessment appointment and the date of your implant, or if you are unsure whether to take any regular medication before you are admitted,

please contact Hopkins Ward to discuss with a nurse. Alternatively, you can contact Pre-operative Assessment and speak to the nurse who completed your assessment.

If there is a change to your personal details (address, telephone number, GP - General Practitioner / family doctor), or if you decide not to go ahead with the implant, please contact the Urology Waiting List Office.

Preparing for your implant

It is advised that you should not have a GA following a flight, for 10 days. Also, following completion of your implant, you should not board a flight for four weeks. It will therefore be important that you discuss any scheduled holidays with your oncologist.

Minimum of 10 days before implant

Minimum of 4 weeks after implant

An *Outpatient Medication Advice Letter* will be given to you following your decision to have a brachytherapy implant. This is a letter to your GP, requesting medication that you will need to start before your implant. You will need to liaise with your GP surgery, well in advance of your implant date, to ensure there is sufficient time to collect the prescription and for it to be dispensed from a pharmacy.

The medications prescribed will be:

- an antibiotic tablet (to prevent any risk of infection);
- an alpha-blocker (Tamsulosin - helps with the frequency and urgency urinary side effects);
- Moviprep sachets (a laxative – to help clear your bowels prior to implant).

Antibiotic – as per instructions

You will start to take these the day before your implant, for one week. We give you antibiotics to prevent any risk of infection. Taking them with or after food will help to reduce the risk of diarrhoea and you do not need to avoid alcohol with this antibiotic. You should take the full course, as instructed.

Tamsulosin MR 400mcg (0.4mg) – one per day (alpha-blocker)

You will start to take this the day before your implant and for at least 3 months following. We generally advise to take it in the morning. It helps you to urinate and helps with the frequency and urgency side effects. You might need to take Tamsulosin for an extended period of time until your symptoms settle, but your oncologist will discuss this with you at your follow-up appointments.

Moviprep sachets, should be taken the day before the implant. Further instructions are given below.

If you are taking Clopidogrel you should stop taking it 7 days before your implant. If you are taking Dipyridamole you should stop taking them one 24 hours before your implant. The nurse who completes you pre-operative assessment will discuss this with you. If you continue to take these drugs, your prostate gland may bleed excessively during your implant.

If you are on Warfarin this will also be stopped four days before implant and alternative arrangements made when you attend the pre-operative assessment appointment.

It is important that you drink plenty of water both the day before and for 48 hours following the implant, to maintain good hydration. We also recommend a drink of water at your admission time.

The Trust no longer provides basic pain relief medicines, such as Paracetamol or Ibuprofen, for patients to take home. Please ensure that you have a supply of these painkillers at home to take following your

discharge. If stronger relief is required, it will be provided.

The day before your implant you are advised to keep alcohol to a minimum, avoid fatty and heavy foods. Also, do not suck sweets or chew gum. Failure to follow these instructions may cause delay to your implant or may even mean it needs to be cancelled.

Before being admitted, it is important that you make transport arrangements to take you home, on discharge. After a general anaesthetic you should not drive for 24 hours but you are advised not to drive, following an implant, for one week or when you feel comfortable. If you are treated as a day case, you will also need to be accompanied by an adult for 24 hours afterwards.

Instruction on taking Moviprep (laxative sachet)

The information in this leaflet is a little different from the instructions from the manufacturers of Moviprep. This is because we want to ensure you have the best preparation for your brachytherapy implant.

Moviprep preparation has a laxative effect and is to be taken the day before your procedure to empty your bowels. If your bowels are not empty the ultrasound scan taken during the procedure may not be clear.

When taking any bowel preparation, such as Moviprep, you need to be near a toilet. We strongly suggest you do not go to work when taking the laxative.

Morning implant:

Day before:

Before 1pm	Finish eating
1-2pm	Drink 1 litre of Moviprep
2-5pm	Drink at least 2 glasses of clear fluids

You are advised to drink only clear fluids after taking the Moviprep and up to 2 hours before your appointment time.

Afternoon implant:

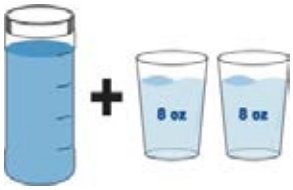
Day before:

Before 5pm	Finish eating
5-6pm	Drink 1 litre of Moviprep
6-9pm	Drink at least 2 glasses of clear fluids

You are advised to drink only clear fluids after taking the Moviprep and up to 2 hours before your appointment time.

You should have been given two sachets of Moviprep (one labeled **A** and one labeled **B**).

Dissolve both sachets into 1 litre of water.



Drink 250ml (one glass) every 15 minutes.

It is important that you take all the preparation before you go to bed that evening, in order to ensure your bowels are successfully prepared for the procedure.

You may experience stomach cramps and diarrhoea after taking the preparation, this is normal. If you experience severe stomach pains or vomiting, take the preparation more slowly (one glass every 30 minutes, instead of every 15 minutes) until the symptoms stop.

If they continue, seek medical advice from your GP or contact the Pre-op Assessment Department.

During the period leading up to your brachytherapy, it is recommended that you keep drinking clear fluids to prevent you becoming dehydrated. There is no restriction on the amount of clear fluid, as long as you stop two hours before the intended implant time.

Recommended clear fluids

- Water
- Black tea/coffee (no milk)
- Well-diluted squash (not fruit juice)
- Lucozade hydro-active energy drinks are also a particularly good glucose drink if you are feeling light headed.

Adult alcohol-free / fragrance-free wet wipes and soft toilet tissue may minimise the expected irritation from excess wiping. Applying petroleum jelly (Vaseline) to your bottom, before and after bowel movements, may also help.

Admission to the ward

It is important that you refer to your 'Quick guide to coming into hospital for surgery' booklet (given to you at your pre-operative assessment) and admission letter. There is also further information and advice on what to bring withinthis booklet.

Morning implant (7.00am - 7.30am admission)

Please plan your travel into hospital so that you arrive at the Greenlands Admission Suite, Level 4, Eye Block, no later than 7am. For directions please refer to the map provided.

Please remember to take your Moviprep (laxative sachet) the day before your admission and drink only clear fluids following that until 6.30am.

The theatre list will start at 8.30am.

Afternoon implant (11.00am - 11.30am admission)

Please plan your travel into hospital so that you arrive at the Greenlands Admission Suite, Level 4, Eye Block, no later than 11am. For directions please refer to the map provided.

Please remember to take your Moviprep (laxative sachet) the day before your admission and drink only clear fluids following that until 11.30am.

The theatre list will start at 1.30pm.

A member of our nursing staff will ask you a few routine questions and record your blood pressure, temperature and any other observations that may be needed. Please tell the nurse if you have any special requirements or anxieties about your operation.

You will then be seen by the surgeon (urologist), your oncologist or a member of their team before the operation. They will check the details of your case, re-examine the risks and benefits associated with it and ask you to re-confirm your consent for the procedure to be undertaken. The consent form will contain reference to the possible complications and side effects of the treatment.

You will also be seen by the anaesthetist who will be looking after you during the implant. They will discuss your anaesthetic and pain relief.

It is important that you understand what to expect. If there is anything you are not sure about or require further information on, please ensure you discuss it fully with our team of professionals.

The implant procedure

The seeds are inserted under general anaesthetic (GA) and the procedure takes approximately 90 minutes. The number of seeds implanted depends on the size and shape of the prostate but usually between 40 and 80 seeds are used.

A urinary catheter is inserted while you are under the GA. This helps produce high quality ultrasound images of the entire prostate gland.

An ultrasound probe is inserted into the rectum and is used to guide the procedure. The seeds are inserted through fine needles, which means no cuts or incisions are required. The consultant inserts the needles through the perineum (the area between the scrotum and the anus) and into your prostate gland.

Once the procedure is complete the needles and probe are removed. The catheter is generally removed the following morning, unless there is bleeding. Patients treated as a day case will have the catheter removed whilst under anaesthetic.

Immediate aftercare

Once the implant is complete you will be taken to the Recovery room, where you will be looked after by a recovery nurse. You may be given oxygen to breathe and the nurse will make regular recordings of your blood pressure and oxygen levels.

The nurse will also ask about your pain.

When the nurse is satisfied with your progress they will report information about the operation, anaesthetic and observations to a nurse from your ward. You will then be transferred on a bed or trolley back to your ward by a porter and a nurse from your ward.

When you are back on the ward, nursing staff will continue to monitor your progress. Once you feel well enough, you will be offered fluids and light foods.

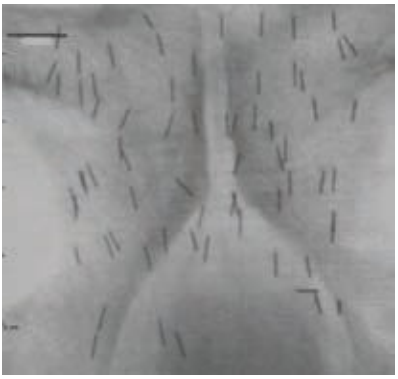
The area between the legs can often feel bruised and inflamed immediately after the implant but these effects are usually temporary and are caused by the needles used to place the seeds during the implant.

Due to the small risk that a seed can be passed into your urine, you are asked not to use the toilet once the catheter has been removed. We will provide you with a disposable urine bottle. This enables us to check your urine before we discard it.

Once you are dressed in your own clothes (including underpants) you may move around the hospital in a wheelchair (to ensure the seeds are not dislodged), as long as you don't use the toilets.

The length of your stay may need to be updated during your admission but we will help you be as independent as possible during your stay. You will not normally see the urologist or oncologist, following the operation, unless there is a particular reason to visit you.

Before you go home, you will have an x-ray of your pelvis to check the general position and number of seeds. You will also need to complete a Trial Without Catheter (TWOC) to ensure you are able to pass urine adequately.



Caption needed

A CNS or a member of the brachytherapy team will also visit you to provide information about managing any side effects, instructions about your medication, a 'Radionuclide Instruction Card', and advice regarding your follow-up appointment.

In a very small number of cases (less than 1%) it may be necessary to return home with an indwelling catheter (IDC) if you are experiencing acute urinary retention (unable to pass urine). The catheter helps drain the urine away. Should this be required, our CNS team will be able to assist you with any care considerations.

You may pass small amounts of blood when you pass urine, this is normal. If the bleeding is severe or you pass large clots, you will need to inform one of the ward staff. If you have already been discharged from hospital, telephone one of the numbers at the end of this leaflet.

Discharge home

After a general anaesthetic you should not drive for 24 hours but you are advised not to drive, following an implant, for one week or when you feel comfortable. If you are treated as a day case, you will also need to be accompanied by an adult for 24 hours afterwards.

Please be aware that there can be a considerable delay between being told you can leave hospital and the time your medications (should you require them) and discharge letter are ready for you. Please be patient

and do not call for transport home until your nurse advises it. We will do all that is possible to speed up your discharge process.

A letter explaining your care will be emailed to your GP. If for any reason this is not possible, the letter will be forwarded via post. A copy of this letter will also be made available to you.

Any new medication which has been prescribed for you, will be given along with verbal instructions on how to take it. Any remaining medication that you brought in to hospital with you, will also be returned.

You should be able to return to work two weeks after surgery. If you require a medical certificate, please ask the nursing staff before you are discharged. Requesting it early in your stay will ensure it is ready for you on discharge.

Following discharge

For approximately a week following the implant you may experience some of the following:

- Mild soreness, bruising and discolouration in the perineal area (between the scrotum and the anus);
- Burning sensation when passing urine;
- Increased urination frequency and urgency;
- Reduced urine flow.

If pain relief is required, an anti-inflammatory medicine such as Ibuprofen is recommended or, alternatively, Paracetamol. You should check with your GP or pharmacist if you are taking other medicines to ensure they are suitable for you. Please contact your GP if you need stronger pain relief.

You may pass small amounts of blood in your urine, this is normal. Drinking plenty of water, approximately 2-3 litres per day, helps to flush out the bladder and reduce any blood clots. If the bleeding is severe or you pass large clots, contact your CNS.

It will be important to ensure you take your Tamulosin regularly throughout the peak of your treatment reactions. This will be at least 3 months. You can get a repeat prescription from your GP.

It may take a few days for your bowels to open properly following taking the Moviprep solution. A high-fibre diet is recommended to reduce the risk of constipation.

For the first two weeks afterwards you should not take part in any strenuous activity or heavy lifting, but after this you will probably be able to carry on as normal. You should also not go on a flight for four weeks following your implant.

You should also not ride a bicycle, motorbike or horse for two months following implant.

Further advice on how to manage your urinary and bowel side effects is given in the following section.

If you have any further concerns about your implant within the first 24 hours, please telephone your ward. Following 24 hours, please contact your GP or CNS.

Side effects of prostate brachytherapy

Immediately following the implant you will experience the side effects associated with the operation. These are caused by the swelling of the prostate and the narrowing of the urethra. They will last approximately one week.

Within the first month of implant you may start to notice the radiation reaction. These side effects will be similar to the side effects that you experienced immediately after your implant and can be managed in the same way. Some urinary symptoms may persist for six to twelve months.

It is important to remember that the side effects listed are a general guide and you may not experience all of them. Also the severity of these symptoms can vary. If you are concerned about any of the side effects that you are experiencing or require additional support, one of our team will be able to help you.

Urinary problems

Increased frequency and urgency of urination are the most common side effects. Your urine flow may be also slower than normal and can sometimes be painful. It will be important to ensure you take the Tamulosin regularly.

For the first week following implant, drinking around three litres of fluid per day (such as water and squash) helps to relieve some of the symptoms you experience. It can also reduce the risk of urinary tract infection. After that you should return to normal drinking patterns, generally no more than one and a half litres per day.

A glass of cranberry juice with each meal can also be useful in relieving frequency or burning sensations in the bladder by reducing the acidity of the urine.

Tea, coffee and cola contain caffeine, which irritates the bladder and can have an effect on your frequency and urgency side effects.

We advise you to restrict your intake of these until your urine irritations settle. Decaffeinated drinks are preferable.

Moderate alcohol intake is not restricted but it is important to increase your water intake to reduce the acidity levels. White wine is preferable to red wine.

You may experience increased frequency and urgency during day and night. If you are passing urine frequently during the night, try reducing fluid intake a few hours before going to bed, and have sips of water, if required, during the night. A covered hot water bottle sometimes helps the discomfort when placed over the bladder area.

Over the next two or three months there may be a feeling that you have not emptied your bladder completely. This is due to the prostate swelling after the implant which causes irritation of the prostate and bladder.

If you have to wait before urine starts to flow, it may be necessary to seek further advice from your CNS, especially if you are finding the symptoms difficult to manage.

Retention of urine

A small percentage of patients (1-2%) may develop acute urinary retention and require a catheter. Urine retention usually begins in the first few weeks after an implant, but can occasionally happen later. If a catheter is necessary, it usually needs to stay in place for up to six months.

If you are feeling a large amount of discomfort in the lower abdomen, and only passing a few dribbles or you are unable to pass urine at all, you may be having urinary retention. You should attend your local Emergency department (A&E), as a catheter may need to be inserted. Please make them aware of your implant and present them with the *Radionuclide Instruction Card* we provided you with.

Once you have had a catheter inserted, please inform a member of our

team, so the appropriate on-going support can be arranged for you.

Bowel problems

You may also feel constipated as a result of the swelling from the prostate. A high fibre diet and extra fluids are encouraged. Sometimes a bowel softener may be required if your stools are hard to pass (Lactulose, Movicol or Laxido). These should be prescribed by your GP.

If the rectum becomes inflamed (proctitis) and you experience a burning sensation after opening your bowels, an anti- inflammatory may be required. You should consult your GP.

Rarely, patients may pass some blood from their rectum. If bleeding persists, it may require investigation. It is important that the medical team undertaking investigations, such as endoscopies, is made aware of your implant and details on how to contact our team should be provided. This can done via the *Radionuclide Instruction Card*.

Occasionally, patients notice an increased desire to open their bowels. This gradually settles. Simple anti-diarrhoea tablets, and occasionally a suppository, usually manage these symptoms. These tend to appear three to six months after implants and are more common following EBRT than with brachytherapy alone.

Because a small area of the rectum overlying the prostate receives a high dose of radiation, we would strongly advise that you do not undergo anterior rectal biopsy or trans-rectal prostate biopsy. If you are to undergo investigation of your bowel in the future, please contact us or ask your consultant to contact us.

Sexual activity

Impotence (inability to achieve satisfactory erections) occurs in 20 to 30% of patients under the age of 60. In older men and men already having some difficulty, impotence occurs more often. Your oncologist will discuss these risks with you.

Treatment, such as Viagra or Cialis, is available for those men who do develop impotence and can often be successful. Please discuss these with your GP who can prescribe it on the NHS. We also run a clinic in Urology Procedures that offers specialist advice, information and education to support you. A referral can be made via your oncologist or CNS.

If you are experiencing stinging and burning sensations while passing urine in the first one or two weeks, you should not have sexual intercourse.

Your semen may be discoloured, as a result of bleeding that may have occurred during the implant. Sometimes ejaculation may also be painful but this tends to settle in time.

Because the prostate produces fluid that is part of the semen, most men will notice a reduction in the volume of their ejaculate following treatment. Eventually, the ejaculate may dry up altogether. If there is a possibility that you still wish to have children following brachytherapy, it will be important to discuss this with your oncologist, prior to treatment, so your fertility options can be discussed.

Late effects

In a very small number of cases following brachytherapy, urethral narrowing can occur, making it difficult to pass urine. In cases that are unresponsive to Tamulosin, it may be appropriate to perform a urethral dilation surgical procedure to improve difficult symptoms. This can occur in approximately 1% of patients who have brachytherapy.

Radiation damage to the rectum can also cause longstanding rectal bleeding. This rarely requires surgical intervention.

Second malignancies (second primary cancers) are very rare, especially with prostate brachytherapy but should always be considered with treatments involving radiation.

When to seek help

Some form of erectile, urinary or bowel dysfunction is to be expected following this treatment. However, it is important to understand that not all symptoms are normal and that some might require immediate help.

It will be important for you to seek help from our team if:

- You are unable to urinate or empty your bladder completely.
- You develop a high temperature, your urine becomes cloudy and foul smelling or your urinary symptoms become much worse.
- You are constipated for more than 4 days.
- You experience excessive or uncontrolled diarrhoea.
- You experience continuous bleeding from the rectum or bladder.
- Your erection lasts for more than a few hours or your penis becomes increasingly cold and bluish in colour after using Cialis or Viagra.

Radiation safety information

Radiation safety is a concern for many patients. However, I^{125} seeds give off very low levels of radiation and the body tissues absorb most of this. The strength of the radiation reduces gradually over time. The level of radiation outside your body is not much greater than the level found in the normal environment.

Your implant poses no significant risk to your family and friends. Although the seeds are radioactive, you are not. Objects that you touch or items that you use do not become radioactive.

Other people may use the linen, clothing, tableware or dishes after you without special precautions. Your bodily waste (urine, stools and semen) are not radioactive.

However, we recommend that for the first two months following your implant, you do not sit close to children or anyone you know who may be pregnant. You may greet or hug them, preferably at chest level, and spend as long as you like with them, in the same room, but sit approximately 0.5 metres away.

We also recommend that for the first two months following implant you maintain 0.5 metres between you and your partner whilst sleeping. Using pillows to maintain this distance may be helpful.

If your partner becomes pregnant, it is important that you seek advice from our team so special precautions can be discussed with you.

Further recommendations are also made for homosexual men. Your CNS will be happy to discuss these with you.

There are no restrictions on travel or physical contact with other adults in regard to radiation safety, but there are restrictions on taking a flight for the first 4 weeks after your implant due to the use of a general anaesthetic during the procedure.

The seeds are permanently embedded in the prostate gland but there is a

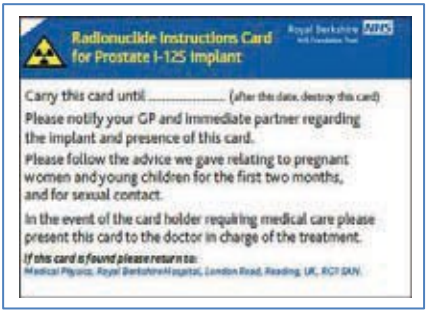
small chance of a seed being passed during sexual activity. Patients are advised to use a condom for the first five ejaculations after the implant. Condoms should be disposed of by double wrapping them in aluminium foil and placing in the dustbin.

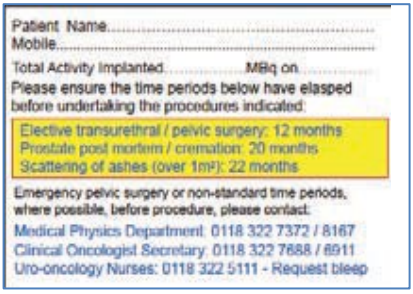
In the unlikely event that you pass a seed in your urine, it should be flushed away in the toilet. If you find one in your clothing, double wrap it in aluminium foil and place in the dustbin. The seed should not be handled with your fingers, use a pair of tweezers or a spoon.

In all circumstances, where a seed has been discovered and disposed of, please inform a member of our team at your next follow up appointment. It is not necessary to inform them before.

Radionuclide instruction card

Before you leave hospital, one of our team will give you an information card that has details about your implant. They will be able to advise you on any questions you may have relating to radiation protection.





We ask you to carry this with you for three years. Following this period, it can be destroyed. Please use it, for example, to remind your GP or consultant, from another hospital, should you require hospital care during the three year period. It will enable other medical professionals to obtain the information from us. It is important that they know about your implant.

The card will also be useful when travelling away from home. Many airports and seaports have security radiation detectors installed. These are very sensitive and may respond to your implant, even though the radiation levels are very low. You can use your card to explain why this has happened.

Please feel free to invite an official to telephone the Royal Berkshire NHS Foundation Trust, using the numbers on the card. We can provide you with a replacement card if you need one.

It may also be helpful to keep this information leaflet with you.

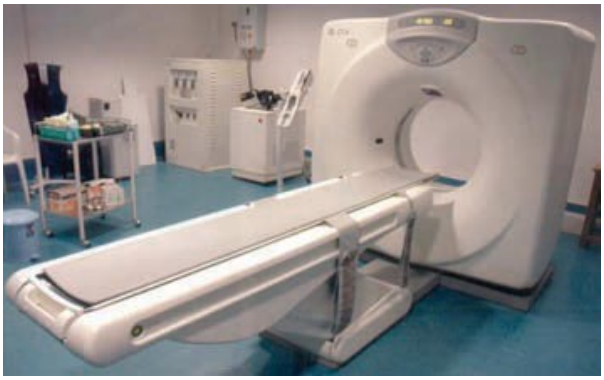
Your next of kin should be told about the card so that they can act on it in the event of unforeseen illness, accident or unexpected death.

In the event of an unexpected death within 20 months of the implant, a normal cremation may not be permitted. It is important that your next of kin informs the hospital staff and funeral directors. They can then contact our hospital for advice, using the information on the card.

Follow-up schedule

After a brachytherapy implant you will be monitored for several years. Your first follow-up appointment will be approximately one month after the implant. Periodic follow-up for the first five years will be arranged either at the hospital, via telephone with a CNS or with your GP.

Your first follow-up appointment will be sent to you once you return home following your implant. This appointment will include a review with your oncologist's team and a CT (Computed Tomography) scan.



The CT scan allows us to check the position of the seeds and ensures that the implant delivered an adequate dose. It is an essential part of the treatment programme, to ensure the quality of our implants is consistently high. It will not tell us how well the treatment is working.

A thin catheter may need to be inserted into the urethra, prior to the scan, and will be removed immediately afterwards.

In a small number of cases, it may also be necessary to have a chest x-ray performed in the Imaging department at this appointment. Your oncologist will discuss this further with you, if necessary.

The next appointment will be three months following your implant (two months following the first follow-up appointment) and then every three months for the first year. You will need a blood test before each visit to check your PSA level. You will also be asked to complete an IPSS form, to assess your urinary functions and an IIEF-5 (International Index of Erectile Function) form to assess your erectile function if appropriate.

Following the first year, a follow up review will generally take place every six months with a CNS. If you live far away from the hospital, it may be possible for your follow-up appointments to be completed over the telephone. Feel free to discuss this with your oncologist.

PSA bounce or spike

The effectiveness of the treatment will be assessed primarily from your PSA test, which will be checked regularly. The PSA will fall slowly over one to two years and may rise temporarily, at times, before going down again. This is a benign (non- cancerous) rise in the PSA, produced by cells in the prostate gland. This occurs most commonly in the second year after the implant, although it can occur earlier or later. The PSA rarely falls to zero.

Approximately 40% of men experience a PSA spike / bounce and PSA levels of up to 10 ng/ml have been reported. There is no way at the moment of distinguishing between a benign PSA rise and a PSA rise that happens when prostate cancer is active. The reasons for this PSA bounce are unclear, but it does not have any effect on the overall success of the treatment.

If you took a course of hormone therapy as part of your treatment, the PSA may rise following completion of the course. This can be normal and your oncologist will be able to give you further advice.

If your PSA continues to rise over 12 months or rises three or more times after treatment, this may be due to a recurrence of the cancer.

Alternative treatments if the seed implant fails

Most patients who have a brachytherapy implant for prostate cancer are cured. However, in cases where the cancer reoccurs it may be necessary to determine the exact site of recurrence by further imaging scans and possibly biopsies. The results help guide the most suitable way in which to further treat the cancer and together, with your oncologist, you can determine the best treatment choice for you.

Additional information

About the Urology Unit

The Greenlands Admission Suite and Hopkins Ward make up the Urology Unit which is for patients undergoing various types of urology surgery.

The Greenlands Admissions Suite is for patients who are being admitted on the day of their surgery. The area has comfortable seating and a television. Patients are transferred to theatre for their implant and then admitted to Hopkins Ward afterwards.

Space in the Greenlands Admissions Suite is very limited and all patients' privacy must be respected. For this reason, visitors and escorts are requested to leave once you are settled.

Hopkins Ward has a total of 23 beds. There are five bays and eight side rooms. Both men and women are admitted to the ward and same-sex accommodation is provided by having same-sex bays and rooms. Flowers are not permitted on the unit for infection control reasons.

Nurses work with other healthcare professionals on the unit as a team, striving to provide a high standard of care. We all hope to make your stay as pleasant as possible.

Please speak to our staff if you have any concerns. If you feel you cannot speak to staff on the ward, then please follow the advice in the Trust's *Quick guide to coming into hospital for surgery* booklet or ask to meet with a Patient Relations representative.

What to bring

Please refer to the *Quick guide to coming into hospital for surgery* booklet for a detailed list of what to bring into hospital with you. We ask that you have a bath or a shower before your admission and wear loose-fitting clothes and flat comfortable shoes.

Please leave valuables at home. The Trust is not liable and does not take responsibility for damage to, loss or theft of, your private property.

Mobile phones may be used but please respect the privacy and confidentiality of others. On occasion, you may be asked to switch your phone off by a member of staff. Silent ring tones such as 'vibration mode' should be used and calls restricted to between 7am and 9pm.

The camera facility is not to be used at any time, in order to protect patient confidentiality.

Friends and Family Test

Before you leave hospital you will be asked one question, 'How likely are you to recommend this service to friends and family if they needed similar care or treatment?'. Please spare a few moments of your time to answer this question and to explain why you gave the score you did.

Reading Prostate Cancer Support Group

The Reading Prostate Cancer Support Group was established in 2007 by the Royal Berkshire Hospital and is fully supported by our Urology Unit. Membership is open to all men who have been diagnosed with prostate cancer, including their partners and families.

Meetings are held on the first Friday of every month at St Andrew's Church Hall at the corner of Craven Road and London Road, Reading RG1 5DB, 6.30pm – 8.45pm. Free parking is available at the hall; parking permits can be made available to group members to allow free parking in adjacent Royal Berkshire Hospital car parks.

Urology assessments

During your follow up, you will be asked to complete two common symptom scoring tools (IPSS and IIEF-5). These enable us to assess your treatment reactions and determine the best possible care for you. A copy of these scoring systems is included below.

Space to include appointment dates, discussions, medications and a log of your PSA results has also been included for your ease.

Appointments

Date	Time	Professional	Location	Information

PSA log

PSA result prior to implant:……ng/ml, on……..
Brachytherapy implant completed on……

Time interval following brachytherapy	Date	PSA results (ng/ml)
3 months		
6 months		
9 months		
12 months		
18 months		
2 years		
2.5 years		
3 years		
3.5 years		
4 years		
4.5 years		
5 years		

International Prostate Symptom Score (IPSS)

	Score					
Over the past month:	**0**	**1**	**2**	**3**	**4**	**5**
How often have you had a sensation of not emptying your bladder fully after you finish urinating?	Not at all	Less than 1 time in 5	Less than half the time	About half the time	More than half the time	Almost always
How often have you had to urinate again less than 2 hours after you finished urinating?	Not at all	Less than 1 time in 5	Less than half the time	About half the time	More than half the time	Almost always
How often have you found you stopped and started again several times when you urinating?	Not at all	Less than 1 time in 5	Less than half the time	About half the time	More than half the time	Almost always
How often have you found it difficult to postpone urination?	Not at all	Less than 1 time in 5	Less than half the time	About half the time	More than half the time	Almost always
How often have you found you had a weak urinary stream?	Not at all	Less than 1 time in 5	Less than half the time	About half the time	More than half the time	Almost always
How many times did you typically get up out of bed to urinate during the night?	None	Once	Twice	Three times	Four times	More than 5 times
The IPSS score is the sum of questions 1 to 6. The lowest score is 0 and the highest score is 30						

Reference: EL Din KE, et al. *J Urol1996*; 155: 1959 – 1964

IIEF-5 score

	Score				
Over the past six months:	**1**	**2**	**3**	**4**	**5**
How do you rate your confidence that you could get and keep an erection?	Very low	Low	Moderate	High	Very high
When you had erections with sexual stimulation, how often were your erections hard enough for penetration?	Almost never or never	Much less than half the time	About half the time	Much more than half the time	Almost always or always
How often were you able to maintain your erection after you had penetrated (entered) your partner?	Almost never or never	Much less than half the time	About half the time	Much more than half the time	Almost always or always
During sexual intercourse how difficult was it to maintain your erection to the completion of intercourse?	Extremely difficult	Very difficult	Difficult	Slightly difficult	Not difficult
When you attempted sexual intercourse, how often was it satisfactory for you?	Almost never or never	Much less than half the time	About half the time	Much more than half the time	Almost always or always
The IIEF-5 score is the sum of questions 1 to 5. The lowest score is 5 and the highest score 25					

RC Rosen et al. Development and evaluation of an abridged, 5-item version of the international index of erectile function (IIEF-5) as a diagnostic tool for erectile dysfunction. International Journal of Impotence Research 1999 11: 319-326.

Abbreviations

A&E	Accident and Emergency
CNS	Clinical Nurse Specialist
CT	Computed Tomography
ECG	ElectroCardioGram
GA	General Anaesthetic
GP	General Practitioner
I^{125}	Iodine-125
IDC	InDwelling Catheter
IIEF-5	International Index of Erectile Function
IPSS	International Prostate Scoring System
PSA	Prostate-specific antigen
TURP	Trans Urethral Resection of the Prostate

Useful contact details

If you have any concerns during the first 24 hours following discharge, please telephone the ward you were on. After 24 hours, it will be necessary to contact your GP or CNS.

Urology Clinical Nurse Specialist (CNS) Team

Tel: 0118 322 7905 (direct line with an answer machine)

Email: urology.nurses@royalberkshire.nhs.uk

If your concern is urgent, please contact the hospital via switchboard (0118 322 5111) and ask for the urology nursing team to be paged.

Clinical Oncologists

Dr Rogers

NHS Secretary Tel: 0118 322 7688 (direct line with an answer machine)

Dr O'Donnell

NHS Secretary Tel: 0118 322 6911 (direct line with an answer machine)

Dr Dallas

NHS Secretary Tel: 0118 322 5243 (direct line with an answer machine)

Private Patients (Dunedin)

Private Secretary Tel: 0118 952 1316 (direct line with an answer machine)

Brachytherapy Physics

Tel: 0118 322 7372 (direct line with an answermachine)

Greenlands Admission Suite

Tel: 0118 322 6932

Harold Hopkins Ward

Tel: 0118 322 7771

Pre-operative Assessment

Tel: 0118 322 6546

Urology Waiting List Office

Tel: 0118 322 8147 (direct line with an answer machine)

Radiotherapy Planning Coordinators

Radiotherapy Assistants

Tel: 0118 322 7872 (direct line with an answer machine)

Private Patients Department (RBH)

Tel: 0118 322 8654 (direct line with an answermachine)

Email: paying.patients@royalberkshire.nhs.uk

Royal Berkshire Hospital Switchboard

Tel: 0118 322 5111

Royal Berkshire Hospital Patient Relations Department

Tel: 0118 322 8338

Email: talktous@royalberkshire.nhs.uk

Reading Prostate Cancer Support Group

Email: info@rpcsg.org.uk

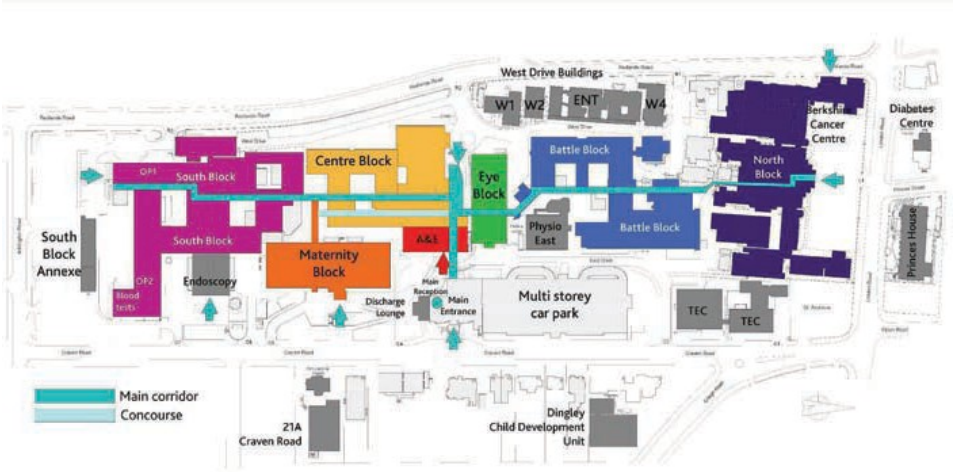
Or via the Urology CNS team (above)

Hospital map

The hospital is spread out over a large area and the wards and departments are located over several levels.

Please head for the 'Block' first and then look for the level.

If you need help, please ask at Reception, or at a Welcome Desk. Alternatively, any member of Trust staff will be happy to help direct you.



Acknowledgements

Patient information adapted by Kim Day with kind permission from Dr Heath at University Hospital Southampton NHS Foundation Trust.

Transrectal prostatic ultrasound image reproduced with kind permission from Royal Cornwall Hospital NHS Trust.

Cross sectional image of I-125 seed reproduced with permission from BARD Medical.

Kind thanks to Reading Prostate Cancer Support Group, for their time and critical evaluation during the production ofthis booklet.

For more information about the Trust and to download a copy of this information visit our website www.royalberkshire.nhs.uk

This document can be made available in other languages and formats upon request.

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