



# PATIENT INFORMATION FOR PERMANENT SEED PROSTATE BRACHYTHERAPY

## 1. Prostate Brachytherapy Planning Clinic

Your Radiation Oncologist/Urologist has referred you to the Prostate Brachytherapy Planning Clinic at the St. George Hospital Cancer Care Centre. This is because you have expressed an interest in having your prostate cancer treated with a radioactive seed implant procedure. The procedure is known as 'transperineal implant of the prostate' (TPIP) or prostate brachytherapy. Your attendance at this planning clinic serves three purposes:

### 1. Assessment of your eligibility

Not all men with early prostate cancer are suitable for brachytherapy. It is only appropriate for men who have low risk, early stage disease. There are strict Medicare guidelines with respect to reimbursement eligibility. Patients who have previously had a transurethral prostatic resection (TURP) are not eligible for the procedure because complication rates are increased. There are several other factors that may affect your suitability for prostate brachytherapy. The St. George Hospital Department of Radiation Oncology has developed very specific guidelines for deciding if you are eligible. During the clinic, an experienced specialist will examine you, and all aspects of your medical history and disease will be thoroughly reviewed and documented. At the end of your visit you will be informed of your eligibility for prostate brachytherapy.

### 2. Giving you information about TPIP and Alternative Treatments

It is not the intention of the St. George Hospital Cancer Care Centre to promote TPIP or to suggest that it is the best treatment for all suitable patients. Like all treatments for prostate cancer, TPIP has advantages and disadvantages compared to other treatment approaches. If you are suitable for TPIP, you will have to decide if it is the right treatment for you. In order to make this decision you need to be well informed of your other treatment options which may be equally suitable for you. These may include watchful waiting, primary hormone therapy, conventional radiation therapy or surgery. The goal of this clinic is to insure that you have the information you need to make an informed decision.

### 3. Ultrasound Measurement of the Prostate

Many of you will have had an ultrasound of the prostate performed at the same time that your prostate was biopsied. Using a similar technique you will have a detailed ultrasound scan of the prostate that will take 15 to 20 minutes, **(no biopsy will be done)**.

You will be positioned lying on your back on a special examining couch with your legs up and your knees supported. A slender ultrasound probe will be inserted into the rectum and a detailed series of measurements will be made to determine the size and shape (volume) of your prostate. This is done for two reasons.

First, since each individual is different, the Medical Physicist and the Radiation Oncologist use this 'volume study' to plan your treatment - to determine the number of radioactive seeds required and where each seed should be placed.

Secondly, the prostate must be within a certain size to be implanted. If your prostate is too large for immediate TPIP, the Radiation Oncologist may recommend hormone therapy for a few months to reduce the size of the prostate. A repeat ultrasound will be then be done to see if adequate shrinkage has occurred making TPIP feasible.

Gas and stool in the rectum can reduce the quality of the ultrasound pictures so you will be given special dietary instructions to follow for a few days before your appointment. (Refer to specific instructions included in your package).

We ask that you keep all information sent to you, as you will need it if you are eligible for and decide to have the TPIP Procedure.

A referral for a pre-anesthetic clinic will be made, and this will necessitate a further appointment with an anesthetist at St. George Hospital Preadmissions Clinic.

The implant procedure is performed in the operating room at St. George Hospital . If you are eligible for the implant procedure, the operating room date will be booked and the radioactive seeds required for your implant will be ordered. **We request that, due to the expense of these seeds, you do not cancel the procedure any less than 3 weeks prior to the scheduled implant date, unless for urgent medical reasons.**

If you have any further questions please call.

***St. George Hospital Cancer Cancer Centre,***  
(02) 9350-3909  
Monday - Friday: 8:00 am - 4:30 pm



## 2. Implant Procedure

Your doctor has recommended the use of a permanent prostate implant to treat your cancer. The purpose of this treatment is to deliver a high dose of radiation to the prostate gland, while limiting the effects to other parts of the body. This procedure involves the insertion of radioactive Iodine capsules (called seeds) directly into your prostate gland. These seeds will not be removed, but will lose their radioactivity over time. Once the implant has been completed, you will be sent home that day. The radiation from the seeds will be delivered to your prostate over the next several months. Because the radiation levels outside your pelvic area will be very low, there are only a few minor restrictions regarding contact with others. We will explain this in further detail later.

### POSSIBLE SIDE EFFECTS:

- ◆ Slight bleeding, bruising and tenderness between the legs are common. If bleeding persists beyond 24 hours after your implant, you should contact your oncologist/urologist.
- ◆ Burning on urination, urinating more frequently, mild pain or feeling unable to pass urine freely are common, and should stop in one to four months after your implant. (It may be easier to empty your bladder by sitting down on the toilet seat, rather than standing up).
- ◆ Rectal discomfort is rare. Constipation should be avoided if possible.
- ◆ Your first ejaculations may be uncomfortable and discolored dark brown, black or red. This is normal, and is a result of blood that can be released into the semen during and after the implant. (Also see Radiation Safety Concerns)
- ◆ **In 10-15 % of the patients, complete blockage of urination occurs. If you have not urinated within 12 hours of your implant procedure, and are having bladder fullness and discomfort, you will need to call your oncologist/urologist, or go to the Emergency Department at the nearest hospital to have a catheter placed in the bladder. If you need to go to the Emergency Department, you must inform the staff that you have had a radioactive seed implant, and under no circumstances should you have a Transurethral Resection of the Prostate (TURP transurethral prostatic resection of the prostate) to help you pass the water. The catheter may stay in for few days or few weeks.**
- ◆ You will be given a letter/card that explains your implant and any precautions to be taken in the event of any unrelated medical attention or admission to hospital. This should be presented to your treating doctor.
- ◆ If you have any concerns with the side effects that you may experience after the implant, please phone your Oncologist, your medications may be adjusted to help these symptoms.

### **LATE SIDE EFFECTS:**

- ◆ There is a small risk of developing a urinary stricture or narrowing of the urethra that may make it difficult to pass urine. This can usually be treated by your urologist.
- ◆ There is a small risk of causing urinary incontinence.
- ◆ Sexual Function: The chance of sexual function declining varies with each patient. This should be discussed with your oncologist/urologist
- ◆ There is a small risk of causing an area of ulceration of the rectum.
- ◆ Fertility is unlikely to be affected with seed brachytherapy

### **ACTIVITY:**

**Avoid any heavy lifting or strenuous physical activity for the first week following your implant. After that, you may return to your normal activity level. Occasionally, vigorous activity may cause some blood in the urine. If you experience this, and it continues for more than a few days, you should inform your oncologist.**

### **DIET:**

- Please cease the low fibre diet and resume your regular eating habits after your implant.
- It is important to keep your bowel movements regular to prevent discomfort. To do this it is recommended you enjoy a balanced diet rich in vegetables and fruit. You should also eat a variety of wholegrain, wholemeal and high fibre foods such as cereals, breads, rice and pasta.
- Drink plenty of fluids. Aim for up to 8-10 glasses of fluid/day. This includes water, diluted fruit juices, cordial, soups, weak tea and soft drinks.
- If you get constipated, stool softeners such as Metamucil or similar products can be used. These are available at your pharmacy and some supermarkets. Remember to drink up to 8-10 glasses of water per day if using these products.

Some foods and liquids may irritate your bladder, causing increased frequency of urination and discomfort. It is not necessary to eliminate these foods from your diet, however if you have irritative bladder symptoms, you may want to eat less of these items for the first several weeks. We can refer you to a dietician at the Cancer Care Centre if you have any other questions or concerns regarding your diet (9350-3944).

#### SOME ITEMS THAT MAY CAUSE BLADDER IRRITATION:

- ◆ Alcoholic Beverages
- ◆ Beverages that contain Caffeine e.g.: Coffee, Tea, Carbonated soda
- ◆ Spicy foods that contain cayenne, chili peppers or black pepper
- ◆ Acidic foods and/or drinks such as oranges, orange juice, pineapple, vinegar

#### SUBSTITUTIONS:

- ◆ For Coffee drinkers: Decaffeinated coffee, Horlicks
- ◆ For Tea drinkers: Herbal teas, decaffeinated teas
- ◆ Fruit Juice: Apple, pear, blackcurrant, nectars
- ◆ Limit the use of alcohol for the first several weeks after the implant. An occasional alcoholic drink, however, is acceptable.

## **RADIATION SAFETY:**

### **Brachytherapy for prostate cancer and cremation: radiation safety concerns**

The radioactive implant you are considering consists of a number of small metal capsules each containing a measured amount of a radioactive form of Iodine known as Iodine 125. Each capsule is sealed to prevent any loss of the radioactive Iodine. When sealed within the capsule, the radioactive Iodine is not a health hazard. The capsules are very strong, but they can be destroyed by extremely high temperatures such as occur during cremation.

Cremation of a body containing an implant like the one you are considering could result in the release of radioactive Iodine. Releasing radioactive Iodine in this manner could be hazardous to people who might be exposed such as funeral home workers.

**For this reason, should death occur for any reason within one month of receiving the prostate implant, your body must not be cremated.** It is important that both you and your family understand this restriction. If this restriction is in conflict with your religious/cultural beliefs or is contrary to the instructions that may exist in your Last Will and Testament, **you must inform your oncologist at least 3-4 weeks before the implant.**

### **Radiation Safety Precautions:**

The seeds that will be used for your implant are low energy radioactive materials that lose their strength over time. The low energy of the seeds means that the most of the radiation is contained inside the prostate gland. A small amount of radiation is given off to the area of the body nearby such as the rectum & bladder.

Objects that you touch, or come in contact with, **DO NOT** become radioactive. Your bodily wastes, (urine and stool) are **NOT** radioactive either. Occasionally, seeds enter the bladder after the implant and may be passed into the urine. This will usually occur within a few days after the implant. You will be provided with a lead pot and strainer and for the first week after the implant you should strain your urine. If a seed is passed, use tweezers to put the seed into the lead pot. Bring the pot with you and inform the Radiotherapy staff when you come for the one-month post implant CT scan that you have lost a seed(s). **There is a rare chance to have one or two seeds travel through the blood stream to the lung.** They would stay in the lung permanently. So far we have not recorded any problems related to this. You will have a chest x-ray done when the one month post implant CT scan is done of your prostate. The loss of a seed or two will not significantly change the effectiveness of your implant.

### **Radiation safety precautions following the implant:**

- ◆ Any pregnant or possibly pregnant woman should avoid prolonged close contact with you for the first 4-5 months after your implant. As long as she stays a distance of six feet or more away, there is no limit to the amount of time she can spend with you.
- ◆ Small children should not sit on your lap, but can sit next to you with no time limit.
- ◆ You may sleep in the same bed as your partner, provided that person is not pregnant. Sexual activity may be resumed whenever you feel comfortable, (usually within a week), after the implant. Since your first ejaculations may be uncomfortable and discolored, you should use a condom. Please note that rarely a seed may be released into the semen during your first ejaculations after implant.
- ◆ The seeds will eventually lose their radioactivity. After one year they will give off very little radiation.
- ◆ You will be asked to carry a wallet card that identifies you as someone who has had a radioactive seed implant, in case of illness. This card will also provide instructions which you and/or your partner should follow in the event of an emergency, including the appropriate phone numbers.

### **St George Hospital Cancer Care Centre Brachytherapy team includes**

Dr Joseph Bucci (Radiation Oncologist), Dr David Malouf (Urologist), Ese Enari, Robert Chambers, Rashmi Gupta (Physicists), Linda Bateman, Annette Brazell, Kristine Schreiber (Radiation therapists), Lenore Nicholas, Patrice Thomas (Nursing).

*If you have any questions before or after your implant procedure, please call:*

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