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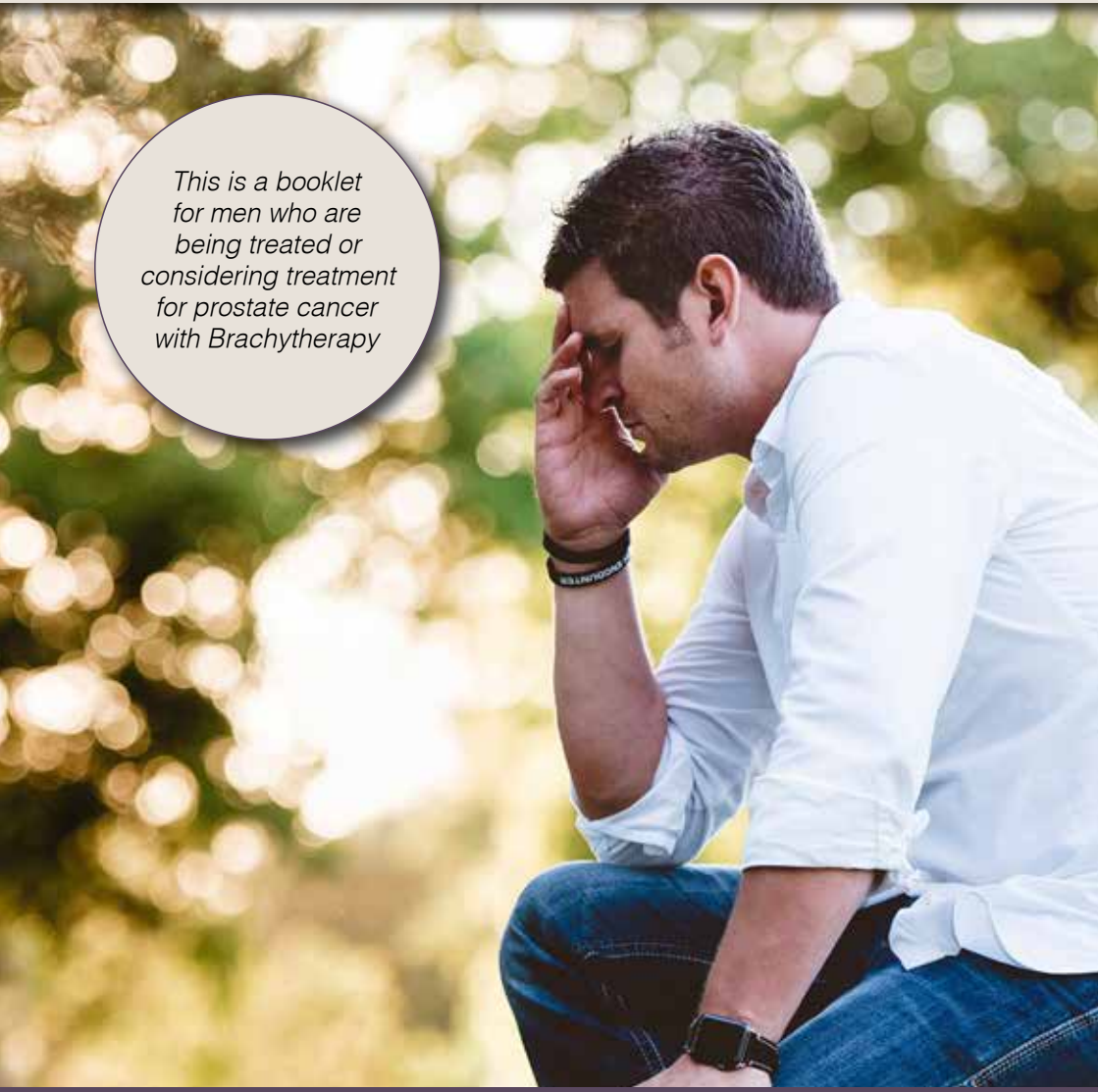


Brachytherapy
for Prostate Cancer

Cancer**care Fact Sheet**

Prepared by Oncology Social Work Team 2019
Cancer**care**

Brachytherapy
for Prostate Cancer

Please be reminded
to make use of the free oncology social work counselling and emotional support services at any time during your cancer journey.

Introduction

This is a booklet for men who are being treated or considering treatment for prostate cancer with Brachytherapy – it also provides advice and information for their families. The aim of the booklet is to be a guide to the procedure and provide a background on patient suitability for treatment

Brachytherapy is a technique for treating prostate cancer using tiny radioactive seeds that can be inserted into the prostate gland. “Brachy” means close and in this treatment the radioactivity is inserted directly into the cancerous organ rather than with conventional radiotherapy where it travels through the body tissues before it reaches the prostate gland.

The latest techniques for Brachytherapy were developed in the mid 1980s with the arrival of sophisticated ultrasound probes. The devices enable the accurate implantation of the seeds into the prostate gland, thus allowing high doses of radiation to be delivered to the cancer.

There are now good long-term results for patients treated up to 15 years ago to show this form of treatment is highly effective in treating and curing patients with early prostate cancer. Brachytherapy appears as effective as other conventional treatments such as surgery (radical prostatectomy) or standard external beam radiotherapy. However, Brachytherapy is not the only effective treatment for prostate cancer and some patients may be better treated by other treatments depending on the precise nature of their disease.

Patient Selection

Patients ideally suited for Brachytherapy are those where there is a low chance of spread of cancer cells outside the prostate gland (metastasis). Occasionally where it is thought that there is a higher chance that the prostate cancer may have spread to the tissues surrounding the gland, patients will be offered a shortened five-week course of conventional external beam radiotherapy together with a Brachytherapy implant. In patients where there is a risk of prostate cancer spreading to lymph nodes or sites outside the pelvis, hormone therapy may be added to external beam treatment and brachytherapy.

The most appropriate therapy will be determined by the combination of PSA level (prostate specific antigen), Gleason score and clinical stage determined at rectal examination. Your doctor will advise you whether your prostate cancer is suitable for treatment by Brachytherapy. Patients should also not suffer with severe urinary symptoms such as a very weak urinary stream or much difficulty emptying their bladder. These symptoms may be assessed using a short questionnaire and confirmed with a urinary flow rate test done by a urologist.

Ideally patients should have a prostate gland that is small in size (less than 50cc). If the gland is too large, areas of the prostate may be shielded by bony skeleton, preventing an adequate implant being performed. Occasionally, if the prostate gland is between 50 and 80cc, it can be shrunk, to a size when the implant can be safely undertaken, using a course of hormone treatment.

Patients with a prostate gland over 80cc, with numerous urinary symptoms or who have had previous prostate surgery (such as a transurethral resection of the prostate, TURP), are usually best treated by alternative therapy such as surgery or conventional radiotherapy.

An MRI scan is best obtained, preferably before the prostate biopsies, to guide the final decision as to which treatment is best for you.

The Procedure

1. Two days before the procedure you need to follow a Low Fibre diet of only white bread, white rice, white pasta, white maize, white potato and meat.
2. The day before the procedure you can only have clear fluids – coffee/ tea without milk, fizzy cooldrinks, clear fruit juice, jelly and instant soup (cup-a-soup). On this day you have two (2) laxatives at Lunch time and you will need to take a suppository the night before the procedure in order to clear your bowel before the seeds are implanted. This is important in order to get a clear view of the prostate via the rectum.

Patients are admitted on the day of the procedure. It is important to stop dispirin/ aspirin or medications that thin the blood (e.g. Warfarin) at least 72 hours before being admitted. If in doubt, please check with your doctors.

During the implant procedure, under general (or sometimes spinal) anaesthetic, the prostate volume is outlined on the ultrasound images and a three-dimensional model constructed on the Brachytherapy planning computer. This information is used to calculate the number and position of seeds to be implanted in the prostate. The plan is unique to each patient.

Radioactive Iodine seeds are inserted under trans-rectal ultrasound guidance using needles passing through the skin between the legs behind the scrotum. The seeds remain in place permanently. At the end of the procedure a catheter is inserted through the penis to drain the bladder and the patient is returned to the ward.

Post Operative Side-Effects

Immediate

Immediately after the operation you may notice some bruising beneath the scrotum and tenderness between the legs. During the operation a catheter will be placed in your bladder to drain any urine. It is quite common to see some blood in the urine immediately after the procedure. The catheter is usually removed a few hours later or the following morning and we will ensure you are able to pass urine before your discharge. You will be allowed home the day of the operation after you have successfully passed urine. Wearing loose trousers on the day of discharge may be more comfortable for you to travel home in.

Advice on Drinking

You may notice a trace of blood in your urine for several days after the implant. This is quite normal so do not be alarmed. For one week after the implant you are encouraged to drink plenty of water to flush any small blood clots that may develop, out of the bladder. Thereafter, you should return to a normal drinking pattern and your daily intake should not normally exceed 1.5 litres per day.

You should also avoid all acidic fruit and caffeinated drinks (both tea and coffee) in the first few months after the implant, as these are likely to aggravate your urinary symptoms.

Urinary Symptoms

After the implant it is common for patients to notice a gradual worsening of their urinary symptoms. Typically, patients complain of a slow stream with urinary frequency during the day and night and occasionally a feeling of incomplete emptying of the bladder. These side effects are due to swelling of the prostate following the procedure and irritation of the prostate and bladder lining due to radiation from the seeds.

Medications

All patients receive Alfuzosin (Xatral™) OR Tamsulosin (Flomax™) or similar medication prior to discharge. This tablet relaxes the muscle within the prostate and helps to reduce the narrowing of the water pipe as it runs through the swollen prostate gland, so reducing urinary symptoms. You will be encouraged to take this tablet for at least 3 to 6

months after the implant.
On discharge from the hospital you will also be prescribed a one-week supply of an anti-inflammatory painkiller called Diclofenac or similar. Some patients find they may require a longer course of anti-inflammatory / painkilling medication, which can usually be prescribed by your GP.

Urinary Retention

Approximately one in ten patients may have difficulty in emptying their bladder at all after the implant, resulting in retention of urine. The symptoms of retention are an inability to pass urine and lower abdominal discomfort usually with a constant desire to urinate. Should this occur, we suggest you either contact us or in a painful emergency situation it may be necessary to contact your GP or go to your local casualty department.

In the first instance you will merely need a catheter inserted into your bladder to drain the urine. We do however, normally prefer to teach patients to catheterise themselves using a single-use disposable catheter. This avoids having a permanent indwelling catheter, which most patients find is an easier and more convenient way to manage this side effect. The inability to pass urine is transient and within a few weeks you will find the bladder starts to empty again and the need for catheterisation will stop.

1. Woman who are or may be pregnant should not sit very close to you (for example on the same sofa or bed) for more than a few minutes per day. Otherwise you may continue as you would have done before the implant and may greet or hug them and spend as long as they wish in the same room as you.
2. Do not sit children on your lap for long periods. As explained above you may briefly cuddle them for a few minutes and they may stay in the same room as you for as long as you wish.
3. Other adult family, friends and colleagues are not at risk and restrictions on time and activities are not necessary.

Special Precautions

The seeds reduce their radioactivity by half every sixty days so as the time after the implant increases do the radioactivity from the seeds gets less.

For two weeks after the implant procedure it is possible to lose seeds in the urine or semen. It is possible to pass the seeds indefinitely, but it is unlikely after the first two weeks. Please strain your urine for two weeks and look for the seeds. The seeds are silver in colour and the size of a grain of rice.

If a seed is found, it should be picked up with a spoon and wrapped in aluminium foil. The seed should not be handheld with your fingers. The foil 'parcel' should then be returned to the Cancercare unit for disposal.

Pre-Implant Diet and Preparation

1. Begin your low fibre diet starting 48 hours before your implant:

Carbohydrates:

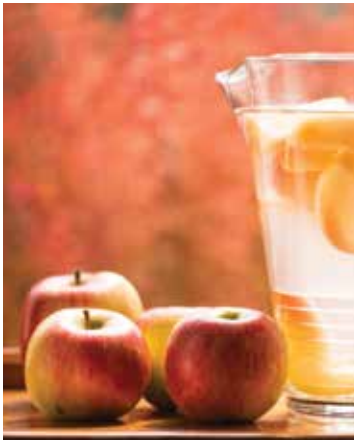
- White Bread
- White Rice
- White Potatoes
- White Pasta
- White Maize

Meat:

- Lamb, Beef, Chicken, Fish

Protein:

- Eggs



2. Change to a clear liquid diet at 8am the day prior to your implant.

Clear liquid diet:

- Coffee/Tea without Milk
- Any fizzy beverage
- Clear Fruit Juice
- Clear Jelly
- Instant Soup (eg. Cup-a-soup)

3. Do not have anything to eat 8 hours prior to your implant.
4. take 2 Dulcolax tablets between 12 and 2pm the afternoon before your implant.
5. Use 1 Dulcolax suppository between 8pm and bedtime the night prior to your implant.
6. A fleet enema will be administered 2-3 hours before your implant.

Aspirin and any non-steroidal anti-inflammatories such as Brufen, Indocid and Voltaren and Vitamin E should not be taken 2 weeks prior to your implant.

Always discuss your medication with your physician.

Summary

- Brachytherapy is a very effective treatment for early prostate cancer, with patients rapidly returning to normal activities.
- Urinary incontinence after this procedure is rare (less than 1%) and the risk of impotence seems lower than with surgery.
- Patients do however experience a temporary deterioration in their urinary symptoms for the first 2-3 months after the implant.
- It is important to remember the day that you are discharged from the hospital after the implant is really the day that your radiotherapy treatment starts.

Place oncology social work card in here

International Prostate Symptom Score (IPSS)

Patient Name: _____

Date: _____

Questions to be answered		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
1.	Over the past month, how often have you had a sensation of not emptying your bladder completely after you finished urinating?	0	1	2	3	4	5
2.	Over the past month, how often have you had to urinate again less than two hours after you finished urinating?	0	1	2	3	4	5
3.	Over the past month, how often have you found that you stopped and started again several times when you urinated?	0	1	2	3	4	5
4.	Over the past month or so, how often have you found it difficult to postpone urination?	0	1	2	3	4	5
5.	Over the past month or so, how often have you had a weak urinary stream?	0	1	2	3	4	5
6.	Over the past month or so, how often have you had to push or strain to begin urination?	0	1	2	3	4	5
7.	Over the last month how many times did you most typically get up to urinate from the time you went to bed at night until the time you got up in the morning?	None	1 Time	2 Times	3 Times	4 Times	5 Times
		0	1	2	3	4	5

Total Symptom Score =
Sum of Questions 1 to 7 = ____/35

Quality of Life Due to Urinary Symptoms							
1. If you were to spend the rest of your life with your urinary condition just the way it is now, how would you feel about that?	Delighted	Pleased	Mostly satisfied	Mixed about equally satisfied and dissatisfied	Mostly dissatisfied	Unhappy	Terrible
	0	1	2	3	4	5	6

Quality of Life Assessment Index L = _____

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