Radiation Therapy for Prostate Cancer: High Dose-Rate (HDR) Brachytherapy Procedure and External Beam Radiation

You will be having a high dose-rate (HDR) prostate brachytherapy procedure. During this procedure, a radioactive source (Iridium) is put in your prostate for several minutes and then removed. This booklet tells you how to be ready for the HDR prostate brachytherapy procedure and external beam radiation. It is important you and your family member/partner-in-care read this booklet. For more information, watch the “High Dose Brachytherapy and You” video on the Cancer Care pages of the Lakeridge Health website. You can find the video by searching for “High Dose Brachytherapy and You” or go to this link: [https://www.lakeridgehealth.on.ca/en/ourservices/Radiation-Therapy-Patient-Education.asp](https://www.lakeridgehealth.on.ca/en/ourservices/Radiation-Therapy-Patient-Education.asp)

After each radiation treatment, it is safe for you to be around other people (including children) and pets. You are not radioactive.

This booklet will tell you about:

1. Your appointments
2. Prostate ultrasound study
3. How to be ready for your HDR prostate brachytherapy procedure
4. What happens on the day of your HDR prostate brachytherapy procedure
5. What happens after your HDR prostate brachytherapy procedure
6. The medications you need to take
7. How to reduce ‘gas’ in your digestive system
8. Bladder and bowel preparation
9. After your HDR prostate brachytherapy procedure
1. Your Appointments

**High Dose Rate (HDR) Prostate Brachytherapy Procedure and External Beam Radiation**

You are having HDR prostate brachytherapy procedure and external beam radiation to treat your prostate cancer. The Radiation Therapy receptionist will call you with your appointment dates and times. Add these appointments to the table below. If you have any questions or concerns, please call the radiation therapy receptionist at 905-576-8711, extension 33856 between the hours of 8am and 6pm from Monday to Friday. After these hours, you may leave a voicemail message. Your call will be returned on the next business day. The cancer centre is closed on weekends and holidays.

**Consultation and education**

You will be in the cancer centre for around 3 hours on this day. The tests you will have are listed below. You will also meet with the radiation oncologist and the nurse.

<table>
<thead>
<tr>
<th>Appointment</th>
<th>Date/time</th>
<th>Location</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood work</td>
<td></td>
<td>Main level, cancer centre</td>
<td>After your bloodwork is taken, go to the B1 level of the cancer centre (lower level). Check in at the reception desk.</td>
</tr>
<tr>
<td>HDR Consult</td>
<td></td>
<td>B1 level, cancer centre</td>
<td></td>
</tr>
<tr>
<td>Teaching Brachy</td>
<td></td>
<td>B1 level, cancer centre</td>
<td></td>
</tr>
<tr>
<td>Electrocardiogram (EKG)</td>
<td></td>
<td>B1 level, cancer centre</td>
<td>This test checks for problems with the electrical activity of your heart.</td>
</tr>
</tbody>
</table>

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<tr>
<th>Appointment</th>
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<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radiation Anesthetic Consultation</td>
<td></td>
<td>This information will be given to you.</td>
<td>This appointment may not be on the same day as the appointments listed above.</td>
</tr>
</tbody>
</table>
Prostate ultrasound study
Not all patients need to have a prostate ultrasound study. Your radiation oncologist will tell you if you need to have a prostate ultrasound study.

You will be in the cancer centre around 1 to 2 hours for this appointment.

<table>
<thead>
<tr>
<th>Appointment</th>
<th>Date/Time</th>
<th>Location</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radiation Assessment (Brachy)</td>
<td></td>
<td>B1 level, cancer centre</td>
<td>If you are having the Prostate Ultrasound Study, please read pages 4 and 5. Check in at a computer on the B1 level.</td>
</tr>
</tbody>
</table>

HDR prostate brachytherapy procedure
You will be in the cancer centre around 6 to 8 hours for this appointment.

<table>
<thead>
<tr>
<th>Appointment</th>
<th>Date/Time</th>
<th>Location</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radiation Treatment (Brachy)</td>
<td></td>
<td>B1 level, cancer centre</td>
<td>Please arrive 1 hour before this appointment time. Check in at a computer on the B1 level.</td>
</tr>
</tbody>
</table>

CT Simulation

<table>
<thead>
<tr>
<th>Appointment</th>
<th>Date/Time</th>
<th>Location</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radiation Simulation</td>
<td></td>
<td>B1 level, cancer centre</td>
<td>Please arrive 15 minutes before this appointment time. Check in at the reception desk. Read the bladder and bowel preparation information on page 9.</td>
</tr>
</tbody>
</table>

External Beam Radiation

<table>
<thead>
<tr>
<th>Appointment</th>
<th>Date/Time</th>
<th>Location</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radiation Treatment</td>
<td></td>
<td>B1 level, cancer centre</td>
<td>Read the bladder and bowel Preparation information on page 9. Check in at a computer on the B1 level. After this treatment, stop at the Radiation Therapy reception to get a list of your next treatment appointments.</td>
</tr>
</tbody>
</table>

Some things to think about when you come for your appointments:

- Do you understand everything that is happening with your treatment?
- Do you have any questions about your treatment?
- Are you having any symptoms or side effects of treatment, or changes in the treatment area?
- Do you need any prescription renewals before your next appointment with your radiation oncologist?

Talk to any member of your healthcare team if you have questions or want more information.
2. Prostate ultrasound study

A prostate ultrasound study gathers information about your prostate. This information is used by your radiation oncologist to decide if an HDR prostate brachytherapy procedure is a good treatment choice for you.

The prostate ultrasound study will:
- Determine if you are medically able to have an HDR prostate brachytherapy procedure.
- Assess the size of your prostate.
- Record pictures of your prostate to prepare for the HDR prostate brachytherapy procedure.

Getting ready for your prostate ultrasound study

Gas and stool in your rectum can affect the ultrasound pictures of your prostate. To reduce gas and stool you need to follow the instructions below before your prostate ultrasound study appointment.

Before the day of your prostate ultrasound study

- Buy two rectal Fleet enema kits from any pharmacy.
- Plan to have someone drive you to and from your appointment.
- You need to reduce gas in your digestive system for 48 hours before the prostate ultrasound study. The information on page 9 of this handout will tell you how to do that.

The night before your prostate ultrasound study

- Give yourself 1 fleet enema.

How to give yourself a fleet enema
1. Lie on your left side. Put your right leg over your left leg.
2. Remove the protective shield from the enema tip before inserting.
3. Gently insert the enema tip into your rectum with a slight side-to-side movement.
4. Do not force the enema tip into the rectum. This can cause injury.
5. Squeeze the bottle until most of the liquid is gone. The bottle may not be empty.
6. Remove the tip from your rectum.
7. Hold this position until the urge to have a bowel movement is strong. This will take about 2 to 5 minutes.
8. Wash your hands when you are done.

On the day of your prostate ultrasound study

- Eat a light breakfast (example: tea or coffee and toast).
- Drink fluids after you have your breakfast.
- Give yourself one fleet enema 1 to 2 hours before your appointment.
- Bring your medications (except vitamins) with you to the appointment.

What to expect the day of your prostate ultrasound study

On the day of your prostate ultrasound study, check in at a computer on the B1 level of the cancer centre. The prostate ultrasound study is done in the radiation therapy department. A nurse and/or radiation therapist will tell you what will happen and make sure that you are ready.

The radiation oncologist will take a medical history and do a physical exam. This includes a rectal exam and measurements of your prostate. The radiation oncologist uses an ultrasound probe...
inserted into your rectum to see your prostate and take measurements of its size. You will be lying on your back with your legs in stirrups for the ultrasound. No biopsy is done. Additional ultrasound pictures of your prostate may be taken to help plan your treatments.

The radiation oncologist, nurse and/or radiation therapist will tell you about the HDR prostate brachytherapy procedure and any side effects you might get. Ask any questions you have.

**After your prostate ultrasound study**

Your radiation oncologist will talk to you about the results of the prostate ultrasound study. If the HDR brachytherapy prostate procedure is a good treatment choice for you, your radiation oncologist will tell you more about it. If an HDR brachytherapy prostate procedure is not a good treatment choice for you, your radiation oncologist will tell you about other treatments.

### 3. How to be ready for your HDR prostate brachytherapy procedure

**One week before your HDR prostate brachytherapy procedure**
- Ask your radiation oncologist when to stop taking your blood thinner medications.
- Buy two rectal enema kits from your pharmacy.
- Ask someone to drive you to and from the cancer centre on the day of your procedure. You need someone to stay with you for 24 hours after your procedure.

**48 hours before your HDR prostate brachytherapy procedure**

Follow the “how to reduce gas in your digestive system” suggestions on page 9 of this booklet.

**The night before your HDR prostate brachytherapy procedure**
- You need to use one rectal enema before you to go bed.
- **Do not eat or drink anything after midnight.**
- Remove all body piercings (tongue rings, belly rings or studs, etc.).

**On the morning of your HDR prostate brachytherapy procedure**
- **Do not eat or drink anything!** (You may have small sips of water to take your morning medications).
- You need to use one rectal enema 1 to 2 hours before you arrive at the Cancer Centre.
- Wear loose, comfortable clothing to your appointment.

**What to bring to your appointment**
- All your medications (except vitamins).
- Your Ontario Health Card.
- Glasses, hearing aids, dentures and their containers. You will be asked to remove all of these things for your procedure. You cannot wear contact lenses for your procedure.
- The contact information for the person who will drive you home.
- Please bring someone to translate for you if English is not your first language or you are hearing or speech impaired.
- If you are diabetic, bring your glucometer and the medications you take for your diabetes.
- If you have sleep apnea, bring your CPAP machine.
4. What happens on the day of your HDR prostate brachytherapy procedure

Come to the cancer centre **1 hour before** your appointment time. Take the elevators down to B1 (lower level of the cancer centre). Check in at the computer for this appointment. The HDR prostate brachytherapy procedure is done in the radiation therapy department. A nurse and/or radiation therapist will tell you about it. You will be given an anesthetic (a medication to put you to sleep) before you have the HDR prostate brachytherapy procedure.

During the HDR prostate brachytherapy procedure, the radiation oncologist will put a catheter into your bladder. An ultrasound probe will be put into your rectum to see the prostate. Ultrasound pictures show the radiation oncologist where to put 14 to 18 needle catheters into your prostate. Gold seed markers will be inserted into your prostate at the same time. This helps with the right placement of the external beam radiation treatments.

Radiation treatment is given through the needle catheters. The needle catheters are taken out when your treatments are finished. This procedure will take about 3 hours. This does not include the time to get ready for the treatment or the time for you to recover.

You will stay in the recovery room after the procedure. A nurse will take care of you during this time. You will be given antibiotics and pain medication. You will need to empty your bladder and be steady on your feet before you can leave the cancer centre. **You are not radioactive after you have the HDR prostate brachytherapy procedure.**

5. What happens after your HDR prostate brachytherapy procedure

After your HDR prostate brachytherapy procedure, you may have:

- Mild pain and/or mild swelling where the needles were put in (between the anus and scrotum).
- Bruising and/or some colour changes in your genital area.
- An upset stomach, dizziness, or a headache for up to 24 hours.
- Discomfort ejaculating for a short period of time after the procedure.
- A change in the colour of ejaculate (semen) to brown, black or red.
- A small amount of blood from your penis or in your urine for the first 24 to 72 hours.

You may have urinary changes that may not start until 2 weeks after the procedure. They can last up to 4 months. These changes will go away. You may have:

- Burning, pain, or discomfort when urinating.
- Feeling a strong need to urinate.
- Some difficulty emptying your bladder.
- Some difficulty starting to urinate.
- More narrow stream of urine.

**What you can do after your HDR prostate brachytherapy procedure:**

- Take acetaminophen (also called Tylenol) for mild pain or discomfort. Your radiation oncologist may give you a prescription for a stronger pain medication.
- Wrap an ice pack or bag of frozen peas in a towel and put on the area to lessen any discomfort or pain you have (use up to 20 minutes at a time for up to 6 times a day).
- You may continue with sexual intercourse.
What you cannot do after your HDR prostate brachytherapy procedure:

- No heavy lifting or strenuous activity for one week after the procedure.
- Do not drive for 24 hours after your procedure.
- Do not make any legal or financial decisions for 24 to 48 hours.

6. The medications you need to take

There are medications you need to take when having an HDR brachytherapy prostate procedure. Your radiation oncologist and a nurse will talk to you about these medications. You will be given a calendar to remind you when to take them. Your pharmacist will review the medications with you too. If you have side effects from the medications, talk to your radiation oncologist and nurse about them. You need to bring all the medications you are taking to your appointments.

The following medications will be prescribed for you:

**Flomax (Tamsulosin) or Xatral (Alfuzosin)**

<table>
<thead>
<tr>
<th>What this medication is for</th>
<th>To reduce the frequency and urgent feeling of having to urinate.</th>
</tr>
</thead>
<tbody>
<tr>
<td>When to start taking this medication</td>
<td>1 week before your HDR prostate brachytherapy procedure.</td>
</tr>
<tr>
<td>When to stop taking this medication</td>
<td>8 weeks after your HDR prostate brachytherapy procedure (or as directed by your doctor).</td>
</tr>
</tbody>
</table>
| How to take this medication? | Flomax 0.4mg one time per day*  
Or  
Xatral 10mg one time per day*  
*Take this medication at the same time every day. Your radiation oncologist may decide to increase either of these medications to twice per day if you are not dizzy when standing. |
| The possible side effects of this medication | Dizziness if you stand up too quickly. |

**Mobicox (Meloxicam)**

| What this medication does | • To reduce swelling in and around the prostate.  
• This is a non-steroidal anti-inflammatory.  
• Reduces the risk of urinary obstruction. |
|--------------------------|------------------------------------------------------------------------------------------------|
| When to start taking this medication | • Start taking this medication the day after your implant procedure.  
• Do not take if you are diabetic (inform your doctor and nurse if you are diabetic). |
| When to stop taking this medication | 4 weeks after your HDR prostate brachytherapy procedure (or otherwise instructed). |
| What this medication does | To reduce swelling in and around the prostate.  
|                          | This is a non-steroidal anti-inflammatory.  
|                          | Reduces the risk of urinary obstruction. |
| How to take of this medication | Mobicox 7.5mg one time per day (take this medication after breakfast). |
| The possible side effects of this medication | An upset stomach.  
|                                                  | Increased appetite and weight gain.  
|                                                  | Problems with sleeping. |

**Zantac (Ranitidine) OR Pepcid (Famotidine)**

| What this medication is for | To reduce the production of stomach acid secretions.  
|                            | Reduce the effects of Mobicox (Meloxicam) on your stomach. |
| When to start taking this medication | Start taking this medication on the day of your HDR prostate brachytherapy procedure. |
| When to stop taking this medication | 4 weeks after your HDR prostate brachytherapy procedure. |
| How to take this medication | Zantac 150 mg twice per day (before breakfast and at bedtime).  
|                            | Pepcid 20 mg once daily. |
| The possible side effects of this medication | Headache.  
|                                                  | Constipation/diarrhea and/or nausea and vomiting.  
|                                                  | Abdominal discomfort. |

**Antibiotic**

| What this medication is for | To reduce the risk of infection. |
| When to start taking this medication? | Your radiation oncologist will tell you if you need to take an antibiotic. |

**Pain Medication**

| What this medication is for | To reduce pain and discomfort from the HDR prostate brachytherapy procedure. |
| When to take this medication | As needed to control pain after your HDR prostate brachytherapy procedure. |
| When to stop taking this medication | When you don't have any more pain or discomfort. |
| How to take of this medication | 1 to 2 tablets every 4 hours as needed for pain. |
| What medication to take: | Tylenol Extra Strength  
|                            | OR  
<p>|                            | Tylenol #3 (this contains codeine) |</p>
<table>
<thead>
<tr>
<th>What this medication is for</th>
<th>To reduce pain and discomfort from the HDR prostate brachytherapy procedure.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Possible side effects of this medication</td>
<td>The codeine in Tylenol #3 can make you constipated. You may need to take a stool softener or laxative to keep your bowel movements regular.</td>
</tr>
</tbody>
</table>

Call your radiation oncologist or nurse if any side effects get worse or if the medication is not doing what it should do for you. Your radiation oncologist may prescribe medications not listed here. **Always** follow the directions on the medication bottle given to you by the pharmacy.

### 7. How to reduce gas in your digestive system

You need to reduce gas in your digestive system. The information below will tell you how to do this. Continue to eat what you normally eat. It is important to have fiber in your diet.

To help reduce gas, you should:
- Eat slowly.
- Have loose fitting dentures re-fitted.
- Eat less raw vegetables (foods that need lots of chewing can cause you to have more gas).

**Do not eat or drink:**
- Dried peas, broccoli, cauliflower, melon, chives, soft drinks, alcohol, beans, brussel sprouts, turnip, cucumber, pickles, beer, fried foods, peppers, cabbage, eggs, onions, sauerkraut and chewing gum

**Do not:**
- Talk while you are eating or eat when you are upset.
- Drink with a straw or drink directly from a bottle.
- Smoke or chew tobacco.
- Chew gum or suck on candies.
- Drink carbonated (fizzy) drinks.
- Eat sorbitol and fructose (found in manufactured sugar-free foods).
- Drink hot beverages (let your drinks cool to lukewarm).

If you have too much gas (such as bloating, abdominal pain) you can buy an over the counter medication that will help to reduce it. Ask your pharmacist for a medication to help you. If you have questions or concerns about your appetite or diet, ask any member of your healthcare team to refer you to a dietitian.

### 8. Bladder and bowel preparation

Your pelvis contains many organs that are close to each other. These organs can move for many reasons. Bladder and bowel preparation helps reduce these movements.

If you can, have a bowel movement **before** your:
- CT simulation/MRI appointment
- External beam radiation treatment appointments
Have a full bladder before your appointments

1. Empty your bladder 1 hour before your CT simulation/MRI appointment and each of your external beam treatment appointments.
2. After you empty your bladder, drink 2 cups of water (1 cup = 250ml) in 15 minutes. Do not empty your bladder before your appointment. Your bladder should be comfortably full, but not painful.

It is important you follow these instructions.

9. After your HDR prostate brachytherapy procedure

After your HDR prostate brachytherapy procedure, you will be given an appointment to come back for a CT scan. This is done in the Radiation Therapy Department. This scan is used to plan for your external beam radiation treatments. Please read the “bladder and bowel preparation” information below to be ready for your appointment.

About 2 weeks after your HDR prostate brachytherapy procedure you will start your external beam radiation treatments. You need to come to the cancer centre every day for these treatments (not including weekends). Your radiation oncologist will decide how many treatments you need.

Go to the emergency department at the hospital closest to you if you:

- Are not able to urinate.
- Have a lot of bleeding or any other symptom that is severe.
- Have a fever above 38.3°C/100.9°F at any time or above 38.0°C/100.4°F for more than an hour.

If you have a problem or concern about a cancer related symptom

1. Call your primary nurse at the cancer centre from 8:30 am to 4 pm, Monday to Friday (except on holidays). Your primary nurse will have given you the number to call.
2. Call the After-hours Symptom Management Telephone Service at 1-877-681-3057.
   - From 5 pm to 8:30 am, Monday to Friday.
   - On weekends and holidays at any time of the day or night.

If you are having a medical emergency, call 911 or go to the emergency department at the hospital closest to you.

Please talk to any member of your healthcare team if you have questions or do not understand any of the information in this handout.

More information

You can find more information about brachytherapy treatment in the Canadian Cancer Society booklet “Radiation Therapy: A Guide for People with Cancer.”

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