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 into your prostate for several minutes. It is then removed. This booklet tells you what to do to be ready for the HDR prostate brachytherapy procedure and external beam radiation. It is important for you and your family to read this booklet. For more information you can 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

This booklet will tell you about:

1. Prostate Cancer Plan: A calendar of your appointments
2. Prostate Ultrasound Study
3. How to be ready for your HDR Prostate Brachytherapy procedure
4. What will happen on the day of your HDR Prostate Brachytherapy procedure
5. What will happen right after your HDR Prostate Brachytherapy procedure
6. The medications you will need to take
7. How to reduce ‘gas’ in your digestive system
8. What will happen next
9. Bladder and bowel preparation for your CT/MRI and external beam appointments
Prostate Cancer Plan: Your Appointments

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

You are having an HDR prostate brachytherapy procedure to treat your prostate cancer. This is followed by external beam radiation. You will be called by the Radiation Therapy receptionist with all of your appointment dates and times. Please add these appointments in to the table below. If you have any questions or concerns, please call the radiation therapy receptionist at 905-576-8711, extension: 3856 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 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>Cancer Centre, Main level</td>
<td>After your blood work is taken, go down to the B1 level of the Cancer Centre (lower level) and check in at the reception desk.</td>
</tr>
<tr>
<td>Uroflow test</td>
<td></td>
<td>Cancer Centre, B1 Level</td>
<td>1 hour before this appointment: empty your bladder, drink two cups of water (500 ml) within 15 minutes. Do not empty your bladder after drinking this water. Your bladder should be full but not feel painful for this test.</td>
</tr>
<tr>
<td>HDR Consult</td>
<td></td>
<td>Cancer Centre, B1 Level</td>
<td></td>
</tr>
<tr>
<td>Teaching Brachy</td>
<td></td>
<td>Cancer Centre, B1 Level</td>
<td></td>
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<tr>
<td>DRCC EKG</td>
<td></td>
<td>Cancer Centre, Main Level</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Appointment</th>
<th>Date/Time</th>
<th>Location</th>
<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 Cancer Plan: Your Appointments

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 on this day. If you are scheduled for this appointment, you will be given information on how to get ready 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>Cancer Centre, B1 Level</td>
<td>If you are having the Prostate Ultrasound Study, please read pages 4-5.</td>
</tr>
</tbody>
</table>

HDR Prostate Brachytherapy Procedure
You will be in the Cancer Centre around 6 to 8 hours on this day.

<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>Cancer Centre, B1 Level</td>
<td>Please arrive 1 hour before this appointment time.</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>Cancer Centre, B1 Level</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 11.</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>Cancer Centre, B1 Level</td>
<td>Read the Bladder and Bowel Preparation information on page 11.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>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.
Prostate Ultrasound Study

Not all patients need to have a prostate ultrasound study. Your radiation oncologist will tell you if you need to have the 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 images 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 images of your prostate. To reduce gas and stool the following preparations must be done before your prostate ultrasound study appointment.

Before the day of your prostate ultrasound study
- Buy two rectal Fleet enema kits from any drug store.
- Arrange for a ride to and from your appointment.
- You will need to reduce gas in your digestive system for 48 hours before the prostate ultrasound study. The information on page 10 of this booklet will tell you how to do that.

How to give yourself a fleet enema:
1. Lie on your left side. Put your right leg over your left leg.
2. Take the protective shield off of the fleet 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 nearly all 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. Do this for about 2 to 5 minutes.

The night before your prostate ultrasound study
- Give yourself 1 fleet enema.

On the day of your prostate ultrasound study
- Eat a light breakfast (example: tea or coffee and toast).
- Drink your 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 the reception desk or the registration computer on the B1 level. 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 will include a rectal exam and measurements of your prostate. The radiation oncologist will use 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 images of your prostate may be taken to help plan your treatment.

The radiation oncologist, nurse and/or radiation therapist will tell you about the HDR prostate brachytherapy procedure and any side effects you might get. You can ask any questions that you may 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 it is decided that an HDR brachytherapy prostate procedure is not a good treatment choice for you, your radiation oncologist will talk to you about other treatments.

How to be ready for your HDR Prostate Brachytherapy Procedure

One week before your HDR prostate brachytherapy procedure:

- Stop taking Aspirin or medications that have aspirin in them (unless your radiation oncologist tells you something different).
- 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 will 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 10 of this booklet.

The night before your HDR prostate brachytherapy procedure:

- You will need to use one rectal enema before you 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 will 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 with you for your appointment:

- All of 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 that can 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.

You need to follow the above preparations before your appointment

What will happen on the day you have 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 registration desk or the registration 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 images show the radiation oncologist where to put 16 needle catheters into your prostate. Gold seed markers may also be inserted into your prostate at the same time. This is to help with the right placement of the external beam radiation treatments.

Radiation treatment will be given through the needle catheters. The needle catheters are taken out when your treatment is done. You will then wake up from the anesthetic. 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. You are not radioactive after you have the HDR prostate brachytherapy procedure.

What will happen after you have the 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 two weeks after the procedure. They can last up to four 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 you may have. Your radiation oncologist may also give you 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.

Go to Emergency Department at the hospital that is 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 38.3º C/100.9ºF at any time or above 38.0º C/100.4ºF for more than an hour.

What if I have questions or concerns?

Please talk to any member of your health care team if you have questions or if you do not understand any of the information in this handout. Your nurse will have given you a card with the number for you to call between the hours of 8:30am and 4:00pm from Monday to Friday. The Cancer Centre is closed on weekends and holidays. After these hours, go to the Emergency Department at the hospital closest to you.

The medications you will need to take

There are medications you will have 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. The pharmacist at your drug store will be able to review the medications with you too. If you have side effects from the medications please talk to your radiation oncologist and nurse about them. You need to bring all of the medications you are taking to your appointments.
The following medications will be prescribed for you:

**Flomax (Tamsulosin) or Xatral (Alfuzosin) = urine flow pill**

<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 should I start taking this medication?</td>
<td>1 week before your HDR prostate brachytherapy procedure.</td>
</tr>
<tr>
<td>When should I 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 much to take of 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. |
| What will this medication do? | • Give you a better flow of urine.  
• Help with the emptying of your bladder.  
• Help to reduce the feeling of urgency and frequency of urinating. |
| What are the possible side effects? | Dizziness if you stand up too quickly. |

**Mobicox (Meloxicam) = Anti-inflammatory**

| What this medication is for? | • To reduce swelling in and around the prostate.  
• This is a non-steroidal anti-inflammatory.  
• Reduces the risk of urinary obstruction. |
|-------------------------------|-----------------------------------------------------------------|
| When should I 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 should I stop taking this medication? | 4 weeks after your HDR prostate brachytherapy procedure (or otherwise instructed). |
| How much to take of this medication? | Mobicox 7.5mg one time per day (take this medication after breakfast). |
| What are the possible side effects? | • An upset stomach.  
• Increased appetite and weight gain.  
• Problems with sleeping. |

**Zantac (Ranitidine) or Pepcid (Famotidine) = stomach pill**

| What this medication is for? | • To reduce the production of stomach acid secretions.  
• Reduce the effects of Mobicox (Meloxicam) on your stomach. |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>When should I start taking this medication?</td>
<td>Start taking this medication on the day of your HDR prostate brachytherapy procedure.</td>
</tr>
<tr>
<td>When should I stop taking this medication?</td>
<td>4 weeks after your HDR prostate brachytherapy procedure.</td>
</tr>
</tbody>
</table>
| How much to take of this medication? | • Zantac 150 mg twice per day (before breakfast and at bedtime).  
• Pepcid 20 mg once daily. |
| What will this medication do? | • Reduce swelling in and around your prostate.  
• Reduce the risk of urinary obstruction. |
| What are the possible side effects? | • Headache.  
• Constipation/diarrhea and/or nausea and vomiting.  
• Abdominal discomfort. |

**Antibiotic**

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

**Pain Medication**

| What is this medication 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 much to take of this medication? | 1-2 tablets every 4 hours as needed for pain. |
| What medication to take: | • Tylenol Extra Strength  
• OR  
• Tylenol #3 (this contains codeine) |
| What this medication will do? | Reduced pain and discomfort. |
| What are the possible side effects? | 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). |

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 that are not listed here. **Always** follow the directions that are on the medication bottle that is given to you by the pharmacy.
How to reduce gas in your digestive system

You will need to reduce gas in your digestive system. The information below will tell you how to do that. 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 the pharmacist at your local pharmacy for a medication that will help you. If you have any questions or concerns about your appetite or diet, please ask any member of your healthcare team to refer you to a dietitian.

**What will happen next**

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 will be used to plan for the external beam radiation treatment. 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 will need to come to the Cancer Centre every day for these treatments (not including weekends). Your radiation oncologist will decide how many treatments you will need.
Bladder and Bowel Preparation for your CT/MRI and treatment appointments

Your pelvis contains many organs that are close to each other. These organs can move for many reasons. Bladder and bowel preparation helps to lessen the movements of your organs.

Getting ready for your CT simulation/MRI appointment

1. Empty your rectum before your appointments

   Try to have a bowel movement before each of your CT simulation/MRI and external beam treatment appointments.

2. Have a full bladder before your appointments

   You will need to empty your bladder 1 hour before your CT simulation/MRI appointment and each of your external beam treatment appointments. Then you will need to drink 2 large cups of water (500 ml/16 oz.) within 15 minutes. After drinking the water, do not empty your bladder. Your bladder should be comfortably full, but not painful. It is important for you to follow these instructions.

More information

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

Please talk to any member of your healthcare team if you have questions or if you do not understand any of the information in this handout. Your nurse will have given you a card with the number for you to call between the hours of 8:30am and 4:00pm from Monday to Friday. The Cancer Centre is closed on weekends and holidays.

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