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PATIENT INFORMATION

**A guide to  
your HDR  
brachytherapy  
for cancer of  
the cervix**

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THE OTTAWA HOSPITAL

*Disclaimer*

*This is general information developed by The Ottawa Hospital. It is not intended to replace the advice of a qualified health-care provider. Please consult your own personal physician, who will be able to determine if this information is appropriate for your specific situation.*

*This booklet was prepared by Lucie Grenier and Sandra Lowry, radiation oncology nurses in HDR brachytherapy, in collaboration with Drs. E and Samant and members of the oncology interdisciplinary team.*

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## Introduction

Welcome to The Ottawa Hospital Cancer Centre, where you will be receiving high dose rate (HDR) brachytherapy treatment of the cervix. You will spend four to five hours in the Brachytherapy Suite, and will be discharged with a family member only once you've recovered from sedation and are walking well.

The radiation oncology team has put together a clinical pathway to help plan your care. The clinical pathway outlines the care you will receive for the day. This includes tests, treatments, activities and teaching. It is important for you to review it so you can participate actively in your recovery. If needed, this plan of care will be adjusted based on your condition.

*Please:*

- Read the booklet carefully.
- Share it with your family.
- Ask questions if there is anything you don't understand.
- Pack the booklet with your belongings and bring it with you when you come to the hospital.
- Please fill out the survey at the end of the booklet and bring it with you at your next appointment. Your comments will help us to improve both patient care and the booklet.



## Your Condition

You have been diagnosed with cancer of the cervix. Your oncologist has prescribed HDR Brachytherapy treatment as part of the plan to treat your cancer.

This booklet has been developed to inform you and your family about this treatment. This booklet will also help guide you during this process.

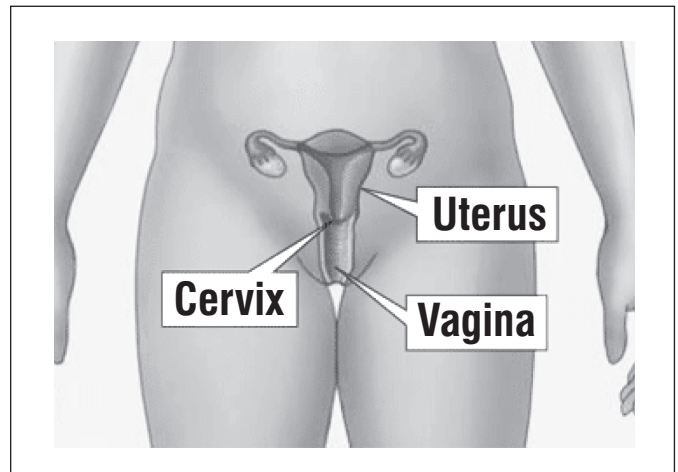
Please read this information and write your questions in the blank pages provided in this booklet. The following page show the clinical pathway for your condition. There is more detailed information after the clinical pathway.

<b>Clinical Pathway for HDR Brachytherapy Treatment</b>			
<b>What are the goals of this Phase?</b>	<ul style="list-style-type: none"> <li>• To provide you with comfort and support.</li> <li>• To teach you about your last phase of your treatment.</li> </ul>		
<b>Who will see me?</b>	<ul style="list-style-type: none"> <li>• Nurses, therapists and doctors will see you at each HDR treatment.</li> <li>• You may also see one or more of the following team members, if needed:                             <ul style="list-style-type: none"> <li>– Dietitian</li> <li>– Psychologist</li> <li>– Social Work</li> <li>– Advanced practice nurse</li> </ul> </li> </ul>		
<b>What tests will I have?</b>	<ul style="list-style-type: none"> <li>• Blood tests</li> <li>• Other tests if needed</li> </ul>		
<b>What will happen?</b>	<ul style="list-style-type: none"> <li>• Before each HDR treatment we will:                             <ul style="list-style-type: none"> <li>– check you and take your vital signs</li> <li>– ask you about how you are eating, drinking, passing urine and having bowel function</li> <li>– ask if you have any vaginal discharge.</li> </ul> </li> <li>• Assessment of pain</li> </ul>		
<b>What do I need to know?</b>	<ul style="list-style-type: none"> <li>• Your health-care team will be teaching you what you need to know and helping you plan for next steps. Some information they will review with you include: things to avoid, use and care of dilator, discharge plan.</li> </ul>		
<b>What activity can I do?</b>	<ul style="list-style-type: none"> <li>• Your health-care team will encourage you to remain active and tell you what activities are best for you.</li> </ul>		
	<b>Treatment #1</b>	<b>Treatment #2</b>	<b>Treatment #3</b>
<b>Tests</b>	<ul style="list-style-type: none"> <li>• Labs tests</li> </ul>		<ul style="list-style-type: none"> <li>• Lab tests</li> </ul>
<b>Treatments</b>	<ul style="list-style-type: none"> <li>• Intravenous(IV)</li> <li>• You will be taken into the treatment room by nurse</li> <li>• Insertion of tandem and ring (average 15 to 20 minutes)</li> <li>• X-ray taken for treatment planning (average 15 to 20 minutes)</li> <li>• Planning of your treatment (average 60 to 90 minutes)</li> <li>• Treatment delivery (10 to 15 minutes)</li> <li>• Post treatment recovery (40 minutes or until medication has worn off)</li> </ul>		
<b>Medications</b>	<ul style="list-style-type: none"> <li>• Pain and anti-nausea medications</li> <li>• Patient's own medication</li> <li>• Oxygen during procedure</li> </ul>		
<b>Activity</b>	<ul style="list-style-type: none"> <li>• Walk independently before going home</li> </ul>		
<b>Nutrition</b>	<ul style="list-style-type: none"> <li>• Nothing by mouth before HDR treatment</li> <li>• Full fluids to regular diet after HDR treatment</li> </ul>		
<b>Patient Teaching / Discharge Planning</b>	<ul style="list-style-type: none"> <li>• Review of clinical pathway</li> <li>• Care and use of dilator</li> <li>• Discharge plans confirmed with whom</li> </ul>		



## Female Anatomy

The **cervix** (or **neck of the uterus**) is the lower, narrow portion of the **uterus** where it joins with the top end of the **vagina**.



### **What is HDR brachytherapy treatment?**

- Brachytherapy is radiation treatment in which a radioactive source is placed next to or into a tumour. For more information about radiation, please read the booklet titled “Radiation therapy” produced by the Canadian Cancer Society. You can find the booklet in the Canadian Cancer Society Web site at [www.cancer.ca](http://www.cancer.ca) → Publications → Publications on cancer treatments → Radiation therapy: A guide for people with cancer.
- HDR brachytherapy treatment is the delivery of a high dose of radiation over a short period of time to your cervix.
- People sometimes refer to this treatment as internal radiation.

### **Where will I get HDR brachytherapy treatment?**

- HDR is given in the Brachytherapy Suite at the The Ottawa Hospital Cancer Centre, General Campus.


### **When will I get HDR brachytherapy treatment?**

- HDR is usually given when external beam radiation is completed (or towards the end of this treatment).
- If your HDR brachytherapy treatment is scheduled while you have not yet completed external beam radiation, you will not receive an external beam treatment on the day of your HDR brachytherapy treatment.

- Most of the time, women are scheduled for a treatment once a week for 3 weeks. Your oncologist has recommended 3 HDR brachytherapy treatments.



## Appointments before your HDR brachytherapy treatments

- Before you start HDR brachytherapy treatment, a *Smit Sleeve* will be inserted into your cervix by the gynecologic oncologist in the operating room. The Smit Sleeve is a plastic tube measuring from 2 to 6 cm in length and about ½ cm in diameter which is inserted into your cervix. The Smit Sleeve will hold the radiation source in your cervix during HDR. This will be done during a procedure called Examination Under Anesthesia (EUA).
- The gynecologic oncology secretary will call you to schedule the Smit Sleeve insertion.
- You will have an appointment at the Pre-Admission Unit (PAU) to assess your health before you go to the operating room for the insertion of the Smit Sleeve. Bring all your medication (including over-the-counter medications and health products. The nurse and/or anesthesiologist will tell you which medications to take and which ones to avoid prior to your EUA. Ask for the booklet called ***Examination Under Anesthesia (EUA)*** if you have not received this already. The PAU is located on the 2nd floor of the Main Building of The Ottawa Hospital at the General Campus.
- The operating room will call you on the day before your EUA to tell you what time to arrive at the hospital. Once you are put to sleep or given local anesthesia, the gynecologic oncologist will dilate your cervix and insert the Smit Sleeve. After the procedure you will go to the recovery room for a few hours before returning home.
- **If at anytime the Smit Sleeve falls out, contact your patient-designated nurse (PDN) and the HDR nurse.**





## The day before and day of each HDR brachytherapy treatment

- Eat your last meal the night before the treatment. This means no solid food after midnight.
- You can only have clear fluids up to **3 hours before** the HDR brachytherapy treatment time.
- **Do not** smoke or drink alcohol for 24 hours before your treatment.
- Take your prescription medications as usual, with sips of water. If you are diabetic, please discuss your medication requirements with your nurse (nurse related to your HDR brachytherapy treatment at extension 73940).
- On the day of your HDR brachytherapy treatment, go to the Brachytherapy Suite C1609, at the Cancer Centre (The Ottawa Hospital - General Campus) 60 minutes before your HDR brachytherapy treatment or as instructed per your HDR nurse.
- Bring your green hospital card.
- Do not bring valuables to the hospital.
- HDR brachytherapy treatment usually last 4 to 5 hours.
- Please arrange for someone to come with you and take you home. **You will not be allowed to drive for 24 hours after the treatment.**



## Arrival in Radiation Therapy Department

- You will meet your HDR brachytherapy nurses who will review your chart.
- You will need to change into a hospital gown before each treatment.
- Urinate for the last time before HDR treatment.
- The nurse will put an intravenous (IV) line in a vein in your arm. The IV will be used to give you medications and fluids during the procedure.
- You will be given medications to take by mouth.
- The HDR nurse will answer any questions you may have.

- You will be resting till HDR brachytherapy treatment starts.
- The nurse will take you to the HDR brachytherapy suite.

### **Your treatment in the HDR Brachytherapy Suite**

- There will be several staff in the Suite. Usually there are two registered nurses, two radiation therapists, a radiation oncologist and physicist.
- The nurse will help you lie down on a special table. You will see an x-ray machine and other monitoring equipment around you. Your heart beat and blood pressure will be continuously monitored during the procedure.
- During the procedure you will get oxygen, and medication intravenously to reduce discomfort and pain; these can make you feel drowsy.
- Your legs will be placed in stirrups in the same way as during a gynecological examination.
- Sterile drapes will be placed over your legs and abdomen. The nurse will begin by cleaning the area around your vagina.
- A catheter will be placed in your bladder since you will not be able to get up to go the bathroom during the treatment.
- The radiation oncologist will use a speculum, which is a gynecologic instrument used to see the cervix to examine the cervix, to see the opening of the Smit Sleeve.
- The oncologist will insert the treatment applicator into the Smit Sleeve and in your vagina. You will feel fullness and this can cause some cramping inside your vagina and/or uterus. If this is uncomfortable, more medication will be given to you. This part of the procedure takes about 15 to 20 minutes.
- The radiation therapist will take x-rays to check their position. These x-rays will be used to plan your treatment. This part of the procedure also takes about 15 to 20 minutes.
- You will remain in the treatment room while the radiation oncologist and physicist plan your treatment. This part of the procedure takes about 60 minutes. You may still be a little sleepy during this time.
- It is important that you remain still for precision during the planning and through the treatment.
- Before the treatment starts, cables from the treatment machine will be attached to the applicator. The radioactive source moves through the applicator's tube to deliver the treatment.
- During your treatment the team will leave the room, but they will be able to monitor you with cameras and talk to you using an intercom. **The team can interrupt your treatment any time if you need help.**

- Women usually do not report any physical discomfort at this time. And you will hear a clicking or humming of the treatment machine.
- Your treatment will last a few minutes, the radioactive source will go back into the machine and the team will come back into the room.
- After your treatment is finished the applicator and urinary catheter will be removed.



## **After HDR brachytherapy treatment**

- Women usually report mild cervical cramping.
- You will be monitored by the brachytherapy nurse for about 40 minutes or until medication has wear off. Once you are able to walk unaided, you will be allowed to go home.
- At the end of your last treatment, the radiation oncologist will remove your Smit Sleeve. You do not have to go to the operating room; this is done in the HDR Brachytherapy Suite.



## **Going home after HDR brachytherapy treatment**

### **Sedation**

You have been given a medication that made you drowsy. You may feel tired or drowsy for a few hours. For 24 hours do not:

- Drive
- Operate machinery
- Drink any alcohol
- Make any major legal decision.

You may resume your usual daily activities after 24 hours.

## **Bleeding**

You may notice bleeding from your vagina after your treatment. The bleeding should decrease over the next four 4 days.

- Use sanitary pads, not tampons.
- If bleeding increases, stop what you are doing and lay down with your feet up.
- If you are soaking 2 pads in 30 minutes, call your PDN or go to the Emergency Department.

## **Passing urine**

At first you may have a burning feeling when you pass urine. This is usually caused by irritation from the catheter that was inserted during the procedure.

- Drink 6 to 8 glasses of water or cranberry juice, unless your doctor has told you to limit fluids.
- If you continue to have burning or difficulty passing urine, call your PDN.

## **Bowel movements**

You may notice a change in your usual pattern of bowel movements. This may be caused by the radiation or other treatments you are receiving.

- If you have diarrhea (frequent, watery bowel movement), take the medication prescribed by your oncologist.

## **Showering**

- You may shower.
- Use unscented soap (Ivory, Dove, baby soap) on your genital area.
- Wash the area gently and pat the skin dry with a soft cotton towel. Be gentle in areas where there are skin folds.
- Avoid scratching and scrubbing the skin in the area being treated.

## **Genital discomfort and pain**

- Protect the treated area from heat and cold.
- Do not use hot water bottles, heating pads or ice packs.
- Wear loose-fitting clothing over the affected area, preferably made of a soft material such as cotton. Do not wear silk or nylon underwear.

- Use unscented panty liners or natural-fiber pads. Avoid if possible daily use of pad or panty liner (especially when you are not menstruating). Do not use deodorant pads and tampons.
- Take pain medication as ordered if needed.

### **Sexual intercourse during HDR brachytherapy treatment**

- Once the Smit Sleeve is inserted, and until it is removed, you can not have sexual intercourse. This is to prevent the Smit Sleeve from falling out.
- You may resume sexual intercourse two weeks after your last HDR brachytherapy (internal radiation) treatments are finished, as long as you do not have pain, large amounts of bleeding, or infection.
- You will be given information on how to use a vaginal dilator, as part of your treatment to prevent scarring of your vagina.

### **Psychological issues**

Cervical cancer and its treatments can affect a woman's self-esteem. As a result, you may experience some fear, sadness, and anxiety.

You need to be able to recognize the signs that you are not functioning well. Some signs can include wanting to be alone, angry outbursts, panic attacks, or inability to stop crying.

Your oncology team may have suggested a referral to the team psychologist. If you are concerned about coping and have not been referred, you can request a referral from any team member, as long as you are a patient of the Gynecologic Oncology Program (even if your treatments are finished).

Dr. Monique Lefebvre can be reached at 613-737 8899, ext. 78893).

### **When to get medical help**

Call your PDN if you notice any of the following problems:

- You continue to have burning or difficulty passing urine.
- You have heavy vaginal bleeding that soaks 2 pads within 30 minutes.
- You have chills or fever (temperature over 38.5°C or 101.3 °F).
- You notice a change in the type of the vaginal drainage or it has a bad smell.
- Your abdominal pain is unrelieved by Tylenol or Ibuprofen.
- You notice a change or have difficulty with bowel or bladder function.

If you cannot reach your PDN, go to the General Campus Emergency Department or to your nearest Emergency Department.

## **Your scheduled appointments**

- Pre-Admission Unit: \_\_\_\_\_
- Smit Sleeve insertion: \_\_\_\_\_
- 1st HDR brachytherapy treatment: \_\_\_\_\_
- 2nd HDR brachytherapy treatment: \_\_\_\_\_
- 3rd HDR brachytherapy treatment: \_\_\_\_\_
- Follow-up with radiation oncologist: \_\_\_\_\_

## **Questions**

If you have any questions or concerns about the HDR brachytherapy treatment, or about any long-term side effects, talk to you radiation oncologist or call your patient-designated nurse (PDN).

- Dr. E's PDN: 613-737-7700, ext. 70225
- Dr. Samant's PDN: 613-737-7700, ext. 70386
- Brachytherapy Suite nurse: 613-737-7700, ext. 73940



## Resources

### Suggested Web sites

- Canadian Cancer Society: [www.cancer.ca](http://www.cancer.ca)
- National Cancer Institute: [www.ncic.cancer.ca](http://www.ncic.cancer.ca)
- National Ovarian Cancer Association (Canada): [www.ovariancanada.org](http://www.ovariancanada.org)
- Society of Gynecologic oncologists of Canada: [www.g-o-c.org](http://www.g-o-c.org)

We hope this book has helped to guide and support you at this time. The information comes from team members and patients like yourself. Your suggestions are important.

The Division of Gynaecologic-Oncology asks for your support in attaining Excellence in Patient Care, Research and Education. The Division of Gynaecologic-Oncology has research accounts. Please consider a donation. All donations are tax receiptable. Your gift is greatly appreciated.

**The Ottawa Hospital, The Division of Gynaecologic-Oncology,  
General Campus  
501 Smyth Road, Room 8130  
Ottawa, Ontario K1H 8L6  
c/o Gynaecologic-Oncology Research Account**





The Ottawa Hospital  
Patient Information Booklet  
A guide to your HDR brachytherapy for cancer of the cervix

**Patient Survey**

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Dear patient,

We would like to know what you think about this booklet.

Please:

- Complete the survey on the next 2 pages.
- Give the completed survey to your nurse before leaving the hospital.

**OR**

- Mail the completed survey to:  
Clinical Manager, 5 East Medical Oncology Unit  
c/o The Ottawa Hospital, General Campus  
501 Smyth Road,  
Ottawa, Ontario  
K1H 8L6

Your comments will help us to make the booklet better.

Thank you,

*Medical Oncology Clinical Pathway Team*



Dear family member/caregiver,

If you are using this booklet because the patient is not able to use it—please complete the survey questions yourself.

The Ottawa Hospital  
 Patient Information Booklet –  
 A guide to your HDR brachytherapy for cancer of the cervix

## Patient Survey

### 1. Information about the Patient

Discharge Date	Year: _____ Month: _____
Age	<input type="checkbox"/> 18 – 69 years <input type="checkbox"/> 70 years or more
Sex	<input type="checkbox"/> Female <input type="checkbox"/> Male
Education	<input type="checkbox"/> No High School <input type="checkbox"/> Some High School <input type="checkbox"/> High School completed <input type="checkbox"/> College <input type="checkbox"/> University
Language	Able to read: <input type="checkbox"/> English <input type="checkbox"/> French <input type="checkbox"/> Other, specify _____ Able to speak: <input type="checkbox"/> English <input type="checkbox"/> French <input type="checkbox"/> Other, specify _____
Who is completing the survey?	<input type="checkbox"/> Patient <input type="checkbox"/> Family member/support person – Please tell us why the patient is not completing the survey. _____

### 2. Questions about the booklet – Please check ✓ your answer

Questions	Yes	No	Not Sure
1. While you were in hospital, did someone explain the purpose of the booklet?			
2. While you were in hospital, did someone explain the clinical pathway?			
3. Did the booklet help you to understand your care in hospital?			
4. Did the booklet help you understand how you can help yourself?			
5. Did the booklet help you prepare for discharge?			

The Ottawa Hospital  
Patient Information Booklet –  
A guide to your HDR brachytherapy for cancer of the cervix

## Patient Survey

What did you like about the booklet?

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How can we make the booklet better?

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**Please:**

- Cut the completed survey out of the booklet
- Give it to your nurse before you leave hospital

**OR**

- Mail it to:  
Clinical Manager, 5 East Medical Oncology Unit  
c/o The Ottawa Hospital, General Campus  
501 Smyth Road,  
Ottawa, Ontario K1H 8L6

*Thank you very much*

*The HDR Brachytherapy clinical pathway team  
5 East Medical Oncology Unit – The Ottawa Hospital*

