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Radiation Therapy for Prostate Cancer – Pathway Overview



November 2025- For Regional Nursing

Radiation Therapy Prostate Patient Pathway

Radiation Oncology Consult
+/-Gold Seed Insertion (may also include Space OAR insertion)

OR

+/-HDR Prostate Brachytherapy Procedure

Planning MRI* and CT Simulation

Treatment Planning (Dosimetry)

Radiation Treatment Delivery & Radiation Review Clinic

Radiation Oncology Follow up

*Diagnostic MRI may be used for fusion with CT Simulation scan and therefore a planning MRI may not be required in some cases. RO to indicate. There is one RO who does not request planning MRIs at all in his practice.

Radiation Consult Appointment

- Provide with specific patient education handout based on RO direction about next steps in patient's plan of care and GU patient education pathway (for staff).
[Patient Education Pathway: GU Cancer \(For Staff\)](#)
- Next appointment will be one of the following below:
 - Planning MRI and CT simulation (for External beam only without gold seeds)
 - Gold seed insertion (For External beam only with gold seeds) +/- SPACE OAR
 - HDR Prostate Brachytherapy Procedure (For combined brachytherapy and external beam)

Preparation for Gold Seed Insertion Procedure

- At consult appointment provide patient with one of the following handouts:
 - [How to Prepare for Your Gold Seed Procedure with a Local Anesthetic](#) (most common)
 - [How to Prepare for Your Gold seed with a General Anesthetic](#) (rare)
- Pre-op phone call appointment is scheduled week prior to gold seed insertion. 20-30 minute phone call with nurse to review preparation and procedure.
- Preparation includes fleet enema 2 hrs before leaving home (day of procedure) as well as taking an antibiotic as prescribed.
- If having a SPACE OAR then patient education to include: [Having a SPACE OAR Procedure](#)
- RO to indicate if it is necessary to stop blood thinners and timing.

Gold Seed Insertion Procedure

- Booked as next available slot once RO enters the MOSAIQ careplan. Typically booked in about 2-4 weeks later, depending on volumes.
- 3 gold seeds are inserted into the prostate in order to assist with daily image matching on the treatment unit and can reduce treatment margins (potentially treating less normal tissue).
- Local procedure (99% of the time). Rare scenario where there is an RO request to be done with conscious sedation.
- Gold seed insertion procedure takes about 30 minutes. Patient is in lithotomy position. Ultrasound is used to visualize needle placement into the prostate.
- Before leaving PACU nurses provide preparation instructions for Planning MRI and CT Simulation appointments. [Gold Seed Procedure and HDR Prostate Brachytherapy Procedure: How to Prepare for Your CT Simulation and MRI Appointments](#)

Preparation for HDR Prostate Brachytherapy Procedure

- At consult appointment provide patient with the following handout:
[Radiation Therapy for Prostate Cancer: High Dose Rate Brachytherapy](#)
- One RO enters MOSAIQ careplan, patients are booked in with the Attending RO in their next available OR slot. Typically this wait time is about 1-2 months.
- In person pre-op appointment is scheduled 2-3 weeks prior to procedure. 1 hour appointment with nurse to go through education/prep, perform EKG. Before or after pre-op patient will also have bloodwork done.
- Preparation includes enemas- 1 night prior and 1 morning of procedure, stop blood thinners as described in handout, nothing to eat or drink after Midnight etc.
- Various prescriptions as outlined in the handout.
- Ensuring patient has someone to drive them to the appointment and to stay with them for 24 hrs after the procedure.
- Nurse will do a reminder call closer to the procedure date to review information.

HDR Prostate Brachytherapy Procedure

- Performed under general anesthetic.
- Takes about 2-3 hrs for the procedure. In the department for 6-8 hrs total.
- [HDR Prostate Brachytherapy Procedure - Patient Education Video](#)
- Before leaving PACU nurses provide preparation instructions for Planning MRI and CT Simulation appointments:
[Gold Seed Procedure and HDR Prostate Brachytherapy Procedure: How to Prepare for Your CT Simulation and MRI Appointments](#)

Preparation for Planning MRI and CT Simulation (for patients having External Beam only)

- At consult appointment provide patient with instructions – indicate on ‘Bladder and Bowel Preparation for Radiation Therapy’ handout by checking what is applicable.
[bladder-and-bowel-preparation-for-radiation-therapy.pdf](#)
- Enema for MRI and CT simulation only. Do not need to do enema for treatments, just ideal to have a daily bowel movement.
- Full Bladder for all appointments (MRI, CT simulation, Treatments).

Questions?

Contact:

Vanessa Hribar, Clinical Practice Leader for Radiation Therapy

vbarisic@lh.ca

OR

905-576-8711 x 36189