

High-Dose Rate (HDR) Endobronchial Brachytherapy

Your doctor has recommended high dose rate (HDR) endobronchial brachytherapy (END-oh-BRON-key-ul BRAY-key-THAIRuh-pee) to treat your cancer. This procedure allows your doctor to deliver a high dose of radiation over a short period of time directly to a tumor site within your body.

During the treatment, a radioactive source is inserted into a thin plastic tube, or catheter, which is placed next to or into a tumor. The radioactive source is passed into the catheter from a machine called a remote afterloader. The source remains inside the tube and never comes in contact with your body tissues.

The Day Before the Procedure

The day before your scheduled procedure, a nurse will call you from the hospital with directions about when and where to report.

The Day of the Procedure

- Bring a list of your medications and any allergies you have.
- Do not eat or drink anything before your arrival on the day of your procedure.
- Please have someone come with you to your treatment, as you will not be able to drive home after the procedure.

Bronchoscopy Procedure

When you arrive, you will be asked to change into a hospital gown. A nurse will take your blood pressure, temperature, and pulse. An intravenous, or IV, line will be inserted into your arm. This helps give you fluids and gives the doctor a direct line for any drugs he or she may prescribe. You will be given a sedative to relax you.

You will be transferred to another department. When you arrive in that department, several patches will be placed on your chest to monitor your heart. A small clip will be placed on your finger to measure the level of oxygen in your blood.

You will be given oxygen through small tubes placed by your nostrils. The back of your throat will be numbed with a spray. A bronchoscope (BRONK-uh-scope), or lighted tube, will be passed through your nose and down your throat. It will be positioned in the area that is to be treated with radiation. One or more small, plastic catheters will be passed through the bronchoscope.

The scope will then be removed.

The catheter will be secured to your skin with tape. While the catheter is in place:

- Lie very still
- Do not talk
- Use deep breathing to avoid coughing

Radiation Therapy Procedure

When the catheter is in place, you will be taken to the CT simulation room in the Radiation Department. Radiation therapists will take x-rays and special measurements needed for your treatment.

Your radiation oncologist will prescribe the amount of radiation you will receive. The physicist will use a specialized computer to plan the treatment. During this time, the nurse will be able to give you medication to ease your coughing.

After your treatment plans are complete, you will be moved to the lead-shielded treatment room. The catheter in your nostril will be connected to the treatment machine (remote afterloader). During your radiation treatment, staff will leave the room. They will monitor you by using a television camera. If you need anything, you will be able to signal staff by waving. If necessary, the treatment can be stopped at any time.

The treatment machine will send the radiation source through the tubing to the site of the tumor. When this happens, you may feel the catheter move slightly against your nose. The treatment will last three to 10 minutes. It is important to lie still so that the catheter is not pulled or dislodged.

When the treatment is complete, the radiation source will return to the treatment machine. The physicist will then come into the treatment room to take final measurements. The catheter will be disconnected from the treatment machine. After the treatment, the catheter will be removed from your nostril.

After the Treatment

You will be transferred back to a holding area. Your family may join you at this time. The nurse will check your pulse and blood pressure and will remove the IV and oxygen. After 1/2 hour, you may be able to go home. Your throat may be sore from the bronchoscopy. Your nurse will provide you with discharge instructions.

In an Emergency Call:
