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Workshop endobronchial brachytherapy

Role of radiation therapy technician in endobronchial brachytherapy



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During brachytherapy process the operator has clearly defined their roles.

1. Pretreatment

Before implantation, the technician must verify proper operation of the HDR (Microselectron) and the preparation of the patient positioning devices for endobronchial brachytherapy. These devices are: the transfer table (needed to perform fluoroscopy images because in this case it is radiolucent and for patient transport), breast slope (to make easier the access to treatment area) and leg triangle (for the patient to be as comfortable as possible. We have to prepare set the fluoroscopy image parameters and place the patient in the right position to the images.

2. Treatment procedure

When we are ready to begin the process, we have to place the patient in the right position: supine.

During the treatment intervention, the pneumologist will tell us which images we have to record or if we have to change

the fluoroscopy position to improve the quality of the images of the treatment area.

Placed and secure the catheter, we take the patient to Spiral CT (PICKER PQS, Philips).

After doing the CT study, we send the images to the planning system (Oncentra 4.1) where doctors and physics do the dosimetry.

We move the patient to operating room for surveillance with the nurse collaboration.

Once the dosimetry is made, we import it to the Microselectron computer, we print and check with the doctor and physician.

We transport the patient from the operating room to the bunker area, where we connect the catheter or catheters (1 or 2) to Microselectron by a connector or connectors. These can be 5f or 6f, depending on the nasobronchial catheter diameters.

From Microselectron control the treatment is checked with a fictitious source.

If the checking is connected, we administer treatment.

After treatment, we move the patient to his room for over-look and we collect the equipment.