

RADIATION THERAPIST'S ROLE IN THE CT SIMULATION ROOM

1

Scanner Preparation



- **Warm-up the X-ray tube.**

- **Begin a predefined protocol in terms of kilovoltage and milliamperage.**

- **Carry out tests that relate to the quality of the images produced and their geometric characteristics.**



**MEDICAL
PROFESSIONALS**

RADIATION THERAPIST'S ROLE IN THE CT SIMULATION ROOM

2

Verification of the Necessary Equipment



- **Check the availability of the necessary equipment for nursing care.**

- **Prepare the devices for patient's immobilization depending on the localization to be treated.**

- **Prepare the localization equipment.**



**MEDICAL
PROFESSIONALS**

RADIATION THERAPIST'S ROLE IN THE CT SIMULATION ROOM

3

Case Preparation



- **Prepare the patient's medical file.**

- **Register the patient.**

- **Set up the appropriate immobilization devices on the scanner table.**



**MEDICAL
PROFESSIONALS**

RADIATION THERAPIST'S ROLE IN THE CT SIMULATION ROOM

4

Patient Preparation



- **Call the patient and guide them to the locker room; observe safety measures.**

- **Prepare the patient psychologically.**

- **Mention that the procedure is painless and that the patient will be monitored and have the ability to communicate constantly.**

- **For pelvic irradiation, home preparation is requested and explained by the doctor during the consultation. You must evaluate this preparation.**

- **Ask the patient to undress and put on a gown to proceed to the next step.**



**MEDICAL
PROFESSIONALS**

RADIATION THERAPIST'S ROLE IN THE CT SIMULATION ROOM

5

Setup and Immobilization



- **Once the patient is ready, help them to settle down on the table taking into account their physical capacities.**

- **Align the patient properly with the appropriate immobilization devices.**



**MEDICAL
PROFESSIONALS**

RADIATION THERAPIST'S ROLE IN THE CT SIMULATION ROOM

6

Simulation (1/2)



- **Move the scanner's table vertically and horizontally towards the gantry.**

- **Acquire the scout view.**

- **Ensure the perfect alignment of the patient; reposition if necessary and draw the midline.**

- **Call the radiation oncologist.**

- **Define the limits of the slices.**



**MEDICAL
PROFESSIONALS**

RADIATION THERAPIST'S ROLE IN THE CT SIMULATION ROOM

6

Simulation (2/2)



- Mark on the skin or the immobilization device the three reference points represented by the intersection of the lasers in front and on both sides.

- Fix the lead balls on these marks.

- Acquire the CT.

- Take a photo of an unusual positioning, which will help to reproduce the position during treatment.

- Once the scanner is done, return the table to its initial position. Remove the lead wires & balls, & tattoo the reference points with very fine disposable needles & ink.



MEDICAL
PROFESSIONALS

RADIATION THERAPIST'S ROLE IN THE CT SIMULATION ROOM

7

Patient Orientation



- **Explain the hygiene rules to be followed.**

- **The patient should not apply anything on the skin. They should use Marseille soap to wash the irradiated area, wear cotton clothing, and avoid exposure to sunlight.**

- **Highlight that the position used during the simulation is to what patient will have to reproduce at each treatment session and that the immobilization devices will be the same**

- **Refer the patient to reception to get an identification photo and an appointment card for treatment sessions and follow-up consultations.**



**MEDICAL
PROFESSIONALS**

RADIATION THERAPIST'S ROLE IN THE CT SIMULATION ROOM

8

Documentation



- **Prepare the treatment sheet.**

- **Export the CT images to the treatment planning system.**

- **Send the patient's file to the physicists.**



**MEDICAL
PROFESSIONALS**