

**AUDIO & VIDEO PATIENT MONITORING DURING  
IRRADIATION AND CT SIMULATION**

**Purpose:** To provide guidelines within radiation safety regulations for patient monitoring/communication during irradiation or CT simulation.

**Policy:**

1. During irradiation, simulation, or CT scanning, the radiation/simulator therapist or HDR operator shall observe the patient and shall have the ability to communicate with the patient throughout the procedure.
2. In order to provide the radiation/simulator therapist or HDR operator with observation and communication capabilities:
  - a. Each linear accelerator/HDR room shall be equipped with a video camera and monitor located so that the radiation therapist or oncology nurse can observe the patient from the control panel. (LAC 33:XV.609.D.3.a)
  - b. A back-up video camera and monitor shall be available at all times in the event that a video system in a linear accelerator or HDR room fails or if the patient is on a monitor (ex: pulse oximeter or EKG) the back up camera will be used to observe the monitor (LAC 33:XV.609.D.3.b).
  - c. Each simulator room and CT scanner room shall be equipped with a window in order that the simulator therapist can observe the patient from the control panel (LAC 33:XV.606.B.5 and LAC 33:XV.610.C.2).
  - d. Each linear accelerator, simulator, CT, and HDR room shall be equipped with a two-way intercom (LAC 33:XV.609.D.4 and LAC 33:XV.610.C.1).
  - e. A back-up audio system shall be available in the event that an audio system in one of the rooms fails.

**Procedure:**

1. When warming up a linear accelerator, simulator, CT scanner, or HDR unit activate the intercom. Also activate the video monitoring system and verify these devices are working. Keep these systems on until all patient procedures for the day have been completed.

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2. Continuously observe each patient during the procedure as well as any monitor the patient is on (ex: pulse oximeter or EKG).
3. If either the video or audio fails during irradiation,
  - a. terminate the irradiation;
  - b. report the failure to the Engineering Department immediately; and,
  - c. do not treat any patient until the failure has been corrected.
4. Should a patient be positioned for treatment outside the video camera's fields of view, use the back-up video system to observe the patient during irradiation.
5. Turn off the audio and video monitoring systems at the end of each day.

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