

Clinical Competency Objectives

To assess the student's degree of proficiency while performing a clinical competency exam, the student must be able to perform each of the following:

A. Evaluate the Requisition

The student will:

1. Obtain the patient's identity.
2. Determine the patient's mode of transportation.
3. Follow the instructions as outlined by the requisition.
4. Discuss incomplete, confusing, or unclear information with the supervisor.
5. Determine the patient positions and projections of the area of interest in relation to the patient's condition.

B. Prepare Radiographic Room

The student will:

1. Assemble the accessory equipment required to perform the particular radiographic procedure specified by the requisition.
2. Set up the examination room for the procedure before the patient enters.
3. Fill syringes with contrast material using sterile technique when appropriate.
4. Assist with preparation of the patient and equipment if procedure is fluoroscopic examination.

C. Verify Correct Identification of Patients

The student will correctly identify the patient for whom the procedure is requisitioned by:

1. Using patient's surname, asking for first name.
2. Checking hospital identification bracelet on in-patients.

D. Introduce Self to Patient

The student will:

1. Welcome patient to the department and tell them his/her name.
2. Respect the patient's privacy and concern.
3. Treat each patient with dignity and concern.
4. Inform patient of what will happen during the procedure(s).
5. Explain the examination to the patient and/or to an accompanying family member.
6. Reassure patient and answer questions as appropriate.
7. Determine information to convey to the patient based on the patient's condition and behavior as well as institutional policy.

E. Verify Correct Preparation of Patient (When Applicable)

The student will:

1. Ascertain that correct preparation procedure was followed.
2. Instruct the patient to remove articles which will be represented on the radiograph as artifacts.
3. Instruct the patient, if necessary, to the appropriate location to remove specific articles of clothing. If the patient requires assistance, respect the patient's right to privacy. If the patient is of the opposite sex, seek the assistance of an individual of same sex.

F. Place Patient on Examination Table

The student will:

1. Transport patient into the examination room without injury to the patient or self.
2. Transport patient on a stretcher or in a wheelchair into the examination room.
3. Assist patient safely from the transportation vehicle to the examination table,
4. Assist patient, allowing him/her to be as comfortable as possible.

G. When Appropriate Measure the Part

The student will:

Measure the patient/part with calipers at the path of central ray or as specified for the requisitioned procedure by the Radiology Department's Procedures Manual.

H. Select the Appropriate Technique

The student will:

1. Determine if the exposure should be made table-top or Bucky.
2. Using calipers to measure the patient/part thickness and a technique chart guide determine and select appropriate minimal exposure factors for projections to be performed which are compatible with diagnostic quality desired.
3. Note radiologist's density preferences or equipment problems to avoid repeat radiographs.
4. Take into consideration the patient's type, size, sex, age, or muscularity and determine the correct technical factors and positioning.
5. Note any pathological conditions which would influence the choice of exposure factors.

I. Select Appropriate Image Receptor Size

The student will:

1. Select the appropriate image receptor size and type based on patient size, area of interest, and number of projections to appear on the film.
2. When using the bucky, place the cassette lengthwise or crosswise in the bucky as indicated by the part.

J. Select and Place Marker(s) Correctly

The student will:

1. Using lead markers (R, L, ERECT, etc.), identify the patient part correctly relative to side, time, and positions of the patient/part appropriate to each Radiology Department's procedure manual.

K. Position Patient Using Positioning Aids and Immobilization Devices

The student will:

1. Utilize items (angle, sponges, etc.) which aid the patient in maintaining the desired position.
2. Select and apply immobilization devices to prevent patient movement without interfering with patient's breathing or circulation.

L. Align Part and Image Receptor

The student will:

1. In positioning the patient, take account of location of suspected fractures, unhealed fractures, presence of foreign bodies, and patient's overall physical condition; handle patient accordingly.
2. Position the part to be radiographed in the correct relation to the image receptor.
3. Using the bucky, center the patient/part into the midline of the body.
4. Place long axis of the part to coincide with the long axis of the image receptor.
5. When using erect bucky, adjust the height to transverse level of part and center the part to the image receptor.

M. Align Tube and Image Receptor

The student will:

1. Position the x-ray tube with the primary beam entering the area of interest at the angle to project the image needed.
2. Operate controls to establish source to image receptor distance and angulation when necessary.
3. Maneuver the radiographic tube correctly and safely in the presence of the patient.

N. Adjust Collimator Appropriate Field Size

The student will:

1. Collimate the x-ray beam to the size of the part.
2. Operate collimator controls to adjust collimation to expose only the area of interest.

O. Apply Gonadal Shield if Required

The student will:

1. Determine the position of the gonads and provide appropriate shielding based on position of the patient and part projection required.
2. Place shield between patient and path of x-ray beam.
3. Supply shielding to any person(s) other than the patient who may be present in the room during radiographic exposure.
4. Understand the effects of all ionizing radiation and conscientiously conform to safety requirements.

P. Instruct the Patients

The student will:

1. Give breathing instructions appropriate for the part projection performed in accordance with those specified in the Radiology Department's procedure manual.

Q. Making Exposures, Checking Patient and Meters

The student will:

1. Make exposures behind leaded protective barriers.
2. Correctly use the rotor and exposure switches.
3. Carefully note any signs of malfunction of equipment and report immediately.
4. Make sure patient carries out breathing instructions and/or maintains the desired position.

R. Assist Patients from the Radiographic Table

The student will:

1. Assist the patient safely from the radiographic table to the vehicle required for transportation.
2. Make the patient aware of the need to remain in the department until films have been seen by the radiologist

S. Evaluate Films to Determine Necessity for Repeats

The student will:

1. Safely transport image receptor(s) to the darkroom to be processed.
2. Review films for technical quality, proper alignment of part/image receptor and tube/image receptor, and correctly placed lead marker.
3. Make certain the name plate is readable and accurate.
4. Identify the need for additional or repeat films.