

# INTER AMERICAN UNIVERSITY OF PUERTO RICO

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PONCE CAMPUS  
HEALTH SCIENCES DEPARTMENT  
RADIOLOGIC TACHNOLOGY PROGRAM

## Safety Policy for the Radiology Program

### Introduction

Radiological protection is an essential part of accident control measures to be followed in a Radiology Department during the performance procedures and studies specialized with ionizing radiation. The Radiologic Technology Program from InterAmerican University, Ponce Campus, is committed to maintain radiation exposure levels as low as reasonably achievable (ALARA) while still allowing each student to obtain all required clinical and didactic competencies. This document establishes safety rules and procedures to be followed by the students of the Program in the different clinical stages where they handle the ionizing radiation.

#### I. Cardinal Points of Protection

As general knowledge base a student to the Program must know the protection Cardinal Points of Protection (Distance, Time and Shielding). These are discussed in the course RATE 1100 Radiological Protection and RATE 2911 Clinical Practice I.

#### II. Protection of the Student

The students of the Program must continue the following rules when they handle the ionizing radiation.

- a. Maintain the most distance from the beam of radiation.
- b. Use the appropriate shields when the X-ray room.
- c. Expose from behind the wall reinforced in the exposition room.
- d. Always use dosimeter and keep the limit of exposure as the recommendations from NRC (1. Rem x year) for the general public and (5 Rem x year) for any person who works with radiation. If the student exceeds the limits he/she will be removed for a period of time (as determined by the case).
- e. Dosimeters are to be worn at the collar level (outside of a lead apron if you are wearing one) at all times while on duty.
- f. Dosimeters will be changed every three month. Dosimeters will need to be dropped off at the Clinical Coordinator office. Students at that time will pick up their new dosimeters.
- g. The Clinical Coordinator has the available dosimeter reports. Students are advice to meet with the Clinical Coordinator in case they would like to see the dosimetry reports.
- h. Students will not hold patients for radiographic exams.
- i. Students will report any accidental exposure to primary radiation to the clinical instructor, and clinical coordinator immediately.
- j. Students will take the extra time to assure they are properly protected under all circumstances (portable, fluoroscope, etc.)
- k. Recognized barriers of primary and secondary protection.

### III. Patient Protection

The protection of the patient must be observed at all times following the shielding, immobilization and repetition of radiographies; not only for the patient but also for the accompanying person. The student must give specific instructions as they complete the radiological procedure and select the techniques using the caliper, where available, or assistance of a licensed radiological technologist and follow the technical factors of exposure.

### IV. Analysis of Radiographies and Policies for Repetition

- a. Every radiography completed by a student must be supervised by licensed Technologist or by the clinical instructor. This will guarantee that the procedure is completed following the quality standards established by the clinical facility and by ALARA. Watching at all times the use of the low radiology doses to the patient.
- b. In support of professional responsibility for the provision of quality patient care and radiation protection, unsatisfactory radiographs shall be repeated only under the direct supervision of a qualified technologist.

### **Voluntary Declaration of Pregnancy Policy**

The decision to declare pregnancy is at the discretion of the student. In order to protect the unborn child, the student may discuss any suspected pregnancy with the Program Coordinator. Whether or not the student decides to declare pregnancy, the student is advised to consult her physician.

A pregnant student may decide on one of the following actions:

1. Declare pregnancy: If the student decides to declare her pregnancy, she must complete the *Voluntary Declaration of Pregnancy and Responsibility Release Form* (see Appendix B) and request a modification to her clinical practice. The pregnant student must meet with the Program Coordinator.

The student will receive orientation regarding methods to reduce exposure from ionizing radiation. Immediate efforts will be taken to keep the student's radiation exposure below 0.05 rem per month and below 0.5 rem during the gestation period (*The declared pregnant woman's occupational dose and the dose to an embryo/fetus are specified in 10 CFR 20.1208 - NRC*). A second (fetal) dosimeter badge will be provided and it should be worn on the abdomen. It is recommended that the student wears a wrap-around apron during fluoroscopic procedures. Under no circumstances will the pregnant student hold or assist in holding patients or image receptors while radiographic exposures are made.

2. Take a leave of absence from the program: The pregnant student may voluntarily decide to take a leave of absence from the program while pregnant. When the student decides to re-join the

program, the student must meet with the Program Coordinator to discuss the Program completion plan. Placement into the program will be determined by their past performance, level of competency and rotations missed. Program completion and graduation date will be based on the course load left in the program upon return.

3. Continue in the program without any modifications: The student may elect not to request any modifications to her clinical practice.

If the student decides **NOT** to declare her pregnancy or revoke a previously declared pregnancy in writing:

- a. The student will be asked to confirm that she reviewed the declared pregnant woman's occupational dose and the dose to an embryo/fetus as specified in *10 CFR 20.1208 – NRC* and that she accepts full responsibility for any increased risks associated with exposure to her unborn child.
- b. She will continue on her assigned clinical practice without any modifications.
- c. The faculty of the program will recommend the student use the basic principles of protections (distance, shielding and time).

Pregnant students are expected to meet all objectives and clinical competencies of each Radiologic Technology course.