

RT SECTION IV: SAFETY

1. CPR REQUIREMENTS

No student is allowed to attend clinical assignments prior to documenting successful completion of Health Care Provider CPR certification. Responsibility lies with the student to remain certified throughout the educational program. Students may not engage in competency testing without a current CPR certification. All students are responsible for providing updated CPR information to the Program Office for entry into their file. A 30-day grace period for CPR re-certification is provided. If a student's CPR certification is expired past 30 days, they must attend the all-day class and utilize personal time to accomplish this requirement.

1a. CPR RENEWAL GUIDELINES

- Students of The Radiologic Technology Program may contact the CPR Coordinator at extension 8963 to schedule re-certification courses.
- A fee may be assessed for these classes.
- Students are responsible for scheduling their renewal class 4-6 weeks prior to expiration.
- If the student attends a recertification course through TRHMC prior to expiration of their certification, or during the 30 days after expiration, the use of personal time is not necessary. The student is responsible for notifying the Clinical Coordinator the date and time of the renewal course as well as signing out and signing back in upon return to his/her clinical assignment.
- Students must obtain an attendance verification form from the CPR instructor and submit it to the Program Office upon return from the course.
- If a student's certification is expired past 30 days, they must attend the all-day class. Time missed for this purpose will be addressed by the Absence from Assignment guidelines.

Rev. 8/08; 8/10; 8/12

2. TEMPORARY DISABILITIES (SHS Policy 321)

SHS policies are located at: <http://www.readinghospital.org/sohs/policies>

3. EMERGENCY CONTACT UPDATE REQUIREMENTS

Students are required to immediately notify the program secretary of any change in emergency contact information. Emergency contact information used by the program includes the following:

- Individual identified as the students emergency contact
- Change of address
- Change of electronic address (personal)
- Change of phone number contacts (dedicated or cell)

- Change of vehicle or vehicle license plate information

On the student's behalf, the RT Program secretary will update the SHS data base and class lists to reflect these changes. The program secretary will also notify other SHS departments of the change (i.e. Financial Aid, Registrar; Technology Coordinator)

4. STUDENT DEMOGRAPHIC INFORMATION (SHS Policy 375)

SHS policies are located at: <http://www.readinghospital.org/sohs/policies>

5. CLINICAL SUPERVISION

Until a student achieves and documents competency in performing any given procedure, all clinical assignments shall be carried out under the direct supervision of qualified technologists. The parameters of direct supervision are:

1. A registered technologist reviews the request for examination in relation to the student's achievement;
2. A registered technologist evaluates the condition of the patient in relation to the student's knowledge;
3. A registered technologist is present during the conduct of the examination; and
4. A registered technologist reviews and approves the radiographs.

In support of professional responsibility for provision of quality patient care and radiation protection, **unsatisfactory radiographs shall be repeated only in the presence of a qualified technologist, regardless of the student's level of competency.**

In order to advance from competency to proficiency, students are encouraged to perform procedures with indirect supervision following demonstration and documentation of competence. Indirect supervision is defined as that supervision provided by a qualified technologist immediately available to assist students regardless of the level of student achievement.

"Immediately available" is interpreted as the physical presence of a qualified technologist adjacent to the room or location where a radiographic procedure is being performed. This availability applies to all areas where ionizing radiation equipment is in use. (Standard 8; Objectives 6: JRCERT Standards for an Accredited Educational Program in Radiologic Sciences, 2002).

For patient safety and imaging quality, a registered technologist should routinely approve, confirm and accept the images that are being sent to PACS for the radiologist to review. Regardless of competency level, students are not permitted to confirm or send images to the Picture Archiving and Communication System (PACS) unless an area supervisor or supervising registered technologist determines circumstances warrant.

5a. POLICY FOR REPEATING RADIOGRAPHS

Purpose

For patient safety, regardless of the student's level of competency, unsatisfactory radiographs shall be repeated only in the presence of a registered technologist. A staff technologist, area supervisor or a Clinical Instructor must be present when repeat exposures are performed.

Disciplinary Action

Level I

- A first occurrence of non-compliance with this policy as a Level I student will result in a first and final written warning.
- A second occurrence of non-compliance with this policy as a Level I student will result in dismissal from the program.

Level II

- A first occurrence of non-compliance with this policy as a Level II student will result in dismissal from the program.

5b. CLINICAL SUPERVISION IN RADIATION ONCOLOGY

During the radiologic technology student's clinical rotation through Radiation Oncology, the student will be under the direct supervision of a registered radiation therapist as they participate in simulating or administering radiation therapy treatments.

As students are allowed only to assist in Radiation Oncology procedures, they are expected to participate in each patient procedure assigned to the therapist responsible for their clinical education during this rotation. Their level of participation in the procedure is at the discretion of the therapist and is based upon the condition of the patient in relation to the student's knowledge of radiation therapy. Under no circumstances shall the student ever set the treatment parameters on the control console.

All registered radiation therapists are required to review this policy annually. Their signature on the corresponding sign-off sheet will serve as evidence that they have read, understand and will adhere to this policy.

5c. SKILLS LAB SETTING GUIDELINES

Without exception, RT program faculty must be present when radiographic exposures are taken. The energized skills laboratory is locked at all times; entry may only be gained through RT faculty.

Program faculty and students are expected to wear radiation monitoring devices while taking exposures in the energized skills laboratory. While taking radiographic exposures, all individuals in the skills lab are expected to stand behind the control booth barrier. See the uniform policy for specific requirements pertaining to safety issues in the lab setting.

Under no circumstances is it permissible for ionizing radiation to be applied to humans utilizing the equipment located in the energized skills lab. Inappropriate use of the energized skills laboratory will result in disciplinary action up to and including dismissal from the program.

5d. CLINICAL SUPERVISION AGREEMENT

I understand that until I achieve and document competency in performing any given procedure, all clinical assignments shall be carried out under the direct supervision of qualified technologists. The parameters of direct supervision are:

1. A registered technologist reviews the request for examination in relation to the student's achievement;
2. A registered technologist evaluates the condition of the patient in relation to the student's knowledge;
3. A registered technologist is present during the conduct of the examination; and
4. A registered technologist reviews and approves the radiographs.

I also understand that an inflexible condition of continued enrollment in the Radiologic Technology Program is that **unsatisfactory radiographs shall be repeated only in the presence of a qualified technologist, regardless of my level of competency as an enrolled student.**

It has been explained that in order to advance from competency to proficiency, I will be encouraged to perform procedures with indirect supervision following demonstration and documentation of competence. Indirect supervision is defined as that supervision provided by a qualified technologist immediately available to assist students regardless of the level of student achievement.

"Immediately available" is interpreted as the physical presence of a qualified technologist adjacent to the room or location where a radiographic procedure is being performed. This availability applies to all areas where ionizing radiation equipment is in use. (Standard 8; Objective 6: JRCERT Standards for an Accredited Educational Program in Radiologic Sciences, 2002).

For patient safety and imaging quality, a registered technologist will routinely approve, confirm and accept the images that are being sent to PACS for the radiologist to review. Regardless of competency level, I understand that I am not permitted to confirm or send images to the Picture Archiving and Communication System (PACS) unless an area supervisor or supervising registered technologist determines circumstances warrant.

I, _____ (Student Radiologic Technologist), understand the clinical supervision expectations set forth by the Radiologic Technology Program at The Reading Hospital School of Health Sciences and agree to adhere to all aspects of these

expectations. I understand that failure to comply with any component of the supervision parameters warrants immediate termination of enrollment because patient safety is placed at risk.

Student Signature

Date

6. RADIATION MONITORING

6a. Origins of Policy

The Radiation Safety Program is based on recommendations of the N.R.C.P. that are recommended to be followed by J.C.A.H.O. Standard D.R.2.2.11, and are substantiated by Pennsylvania Department of Environmental Resources, Bureau of Radiological Health, Title 25, Chapter 215-231 regulations, and Pennsylvania Department of Health, Chapter 229 regulations.

The radiation monitoring policy is based on the Radiation Safety Program, which has been established for the Department of Radiology under the title of Procedures to Assure Minimal Radiation Exposure for Diagnostic X-Ray Examinations.

6b. "ALARA"

All radiation safety practices at TRHMC are based upon the principles of ALARA. The ALARA Radiation Safety Philosophy is: To reduce radiation exposures to patient and staff As Low As Reasonably Achievable. The degree of reasonableness and the proportion of limits on time, distance, and shielding are determined by the Radiation Safety Officer and the Radiation Safety Committee. Students are introduced to the ALARA philosophy during a basic radiation protection lecture during Orientation. These principles will be expanded upon during the first semester Radiation Protection course, and supported throughout the remaining clinical and didactic curriculum. Students are expected to adhere to the shielding and other radiation safety policies established for the department of radiology.

6c. Radiation Monitoring Device

A radiation monitoring device is provided to each student by the School of Health Sciences upon admission to the program. Students are not permitted in the clinical setting without a radiation monitoring device. Students are required to properly wear their radiation monitoring device at all times while in their assigned clinical areas, during clinical laboratories, and during RT Skills Lab activities. Radiation monitoring devices will be worn on the collar. If a protective apron is worn, the radiation monitoring device is worn on the collar above the protective apron.

6d. Important Radiation Monitoring Device Guidelines:

The following additional important rules apply to radiation monitoring devices and other personnel monitors:

1. Be certain your name is clearly printed on the radiation monitoring device.
2. Do not exchange radiation monitoring device between individuals.
3. Do not remove the radiation monitoring device from The Reading Hospital and Medical Center, other than to take to an off campus clinical assignment.
4. Do not allow radiation monitoring device to become wet or hot (note: if badge is laundered, it will become both of the above and the reading will be in gross error beyond the standard +/- 50% accuracy). Please note - if this does occur, notify the Clinical Coordinator so a replacement radiation monitoring device can be issued.
5. Do not wear radiation monitoring device during personal x-ray or nuclear medicine exams (its purpose is to measure occupational exposure only).
6. Notify the Clinical Coordinator if the radiation monitoring device is inappropriately exposed (e.g. "fell on floor and left in room during an x-ray exam").
7. A radiation monitor must be worn at all times in the Radiology Department and in other areas of the hospital where ionizing radiation is being used for diagnosis or therapeutic purposes.
8. Radiation monitoring devices will be changed monthly. Students are to report to the Clinical Coordinator or one of the Clinical Instructors on the first day of the new month to exchange their radiation monitoring device. The devices must be submitted by the fourth day of each month. Failure to submit the radiation monitoring device is considered an unsafe radiation practice and will be noted in the Safety Section of the Performance Evaluation.
 - Multiple occurrences of improper submission of the radiation monitor will result in deductions on the Radiation Safety Section of the semester evaluation.
 - A fee will be charged for any unreturned badge. This administrative fee is imposed by the monitoring company and will be passed along to students incurring the fee.

6e. Radiation Monitoring Device Reports

The Radiation Safety Officer initials the monthly report upon completion of review. If a radiation monitoring device reading higher than normally anticipated is noted, the student will be counseled by the Radiation Safety Officer to determine the reason. Recommendations for behavioral changes will be made as appropriate. Each student is required to review and initial the monthly report. Copies of monthly student

radiation monitoring device reports are kept on file in the Program Office. Students are provided a copy of their annual exposure record by the Program. A copy of the annual exposure record is also kept in the student's permanent file. Questions regarding radiation monitoring device reports should be directed to the Radiation Safety Officer, **Dr. Chandrasekhar Kota**.

6ei. Exceeded Dose Limits

The Radiation Safety Officer notifies the student and Program Director immediately if a radiation monitoring device reading is near or above acceptable limits. The Radiation Safety Officer will counsel the student on proper radiation protection practices.

6f. Forgotten Radiation Monitoring Device

Students arriving for clinical assignment without their badge are considered out of acceptable uniform and will not be permitted in the clinical environment. The student will be directed to return home or to the residence hall to obtain the device. For the second and subsequent occurrences of forgetfulness within one academic year, a minimum of four (4) hours absence will be documented if obtaining the radiation monitoring device requires leaving campus.

6g. Lost Radiation Monitoring Device

Should a student lose their radiation monitoring device, the following process is to be followed.

1. If only one day remains until a new radiation monitoring device will be issued (i.e. final day of the month), the student is to report to the C-1 Clinical Office and request a pocket dosimeter for that day's use. It is the student's responsibility to return the pocket dosimeter to the C-1 Clinical Office at the end of the day. An instructor will obtain and record the data on the form designated for this purpose, then forward the information appropriately.
2. If more than one day remains until a new radiation monitoring device will be issued, the student is to report to the C-1 Clinical Office and request a spare radiation monitoring device. This radiation monitoring device is then handled as identified above, and submitted at the end of the month for entry into the student's permanent exposure record.
3. Failure to return a monthly radiation monitor will result in a fee that is the sole responsibility of the student.

7. RELEASE OF RADIATION EXPOSURE RECORDS

Students wishing to have radiation exposure records sent elsewhere must sign a form authorizing the release of such records. This form may be requested by contacting the program office at (484) 628-0200.

8. RADIATION PROTECTION & SHIELDING

Students are expected to adhere to the established shielding guidelines set forth by the clinical facility they are assigned to. These guidelines are to be employed in the Energized Skills lab as well as during clinical rotations. The guidelines utilized by the Department of Radiology at The Reading Hospital and Medical Center are reviewed in detail with students during the Radiation Protection curriculum. Students are expected to adhere to these guidelines during skills lab and clinical experiences.

Note: TRHMC policies are available to enrolled students via the intranet homepage and may be accessed for review and reference using personal user codes and passwords.

9. HOLDING PATIENTS

It is the policy of The Reading Hospital School of Health Sciences that students in the Radiologic Technology Program **may not** hold patients or imaging devices during ionizing radiation exposure for any diagnostic or therapeutic purpose unless there is a dire medical emergency such that the patient's health status would depreciate significantly during the time required to obtain a non-student individual for holding.

Policy

Students will follow these guidelines if required to hold in a dire emergency:

1. The individual must be protected with appropriate shielding devices of at least 0.5 mm lead equivalent.
2. The individual must be positioned so that no part of his/her body will be struck by the useful beam and his/her body will be as far as possible from the edge of the useful beam.
3. Pregnant persons or individuals under the age of 18 are not permitted to hold patients.
4. In unusual cases, a special radiation monitor (pocket dosimeter) should be requested from the Clinical Instructors.
5. Radiation exposure for students under the age of 18 is limited to 5% of MPD or less than 20 mrem/month.

10. REPORTING EQUIPMENT MALFUNCTION

Students observing faulty equipment should report it immediately to their supervising technologist as well as their Clinical Mentor. Equipment malfunctions and any other safety issues associated with the clinical environment may also be reported to the area manager or chief technologist.

11. REPORTING INCIDENTS

11a. REPORTING INCIDENTS INVOLVING PATIENTS

When in the clinical setting, the student should be aware of any status changes in the patient. If a student notices a status change in the patient, it may be necessary for an incident report to be completed. Incident reports are used to notify Risk Management of patient conditions if something should happen, and in no way are used to reprimand a student for his/her behavior. If the student should see a condition in which

an incident report should be completed, the area supervising technologist should be notified immediately. The patient incident reports are to be completed via the intranet using RL Solutions. The following are examples of when an incident report needs to be completed.

- Patient on wrong amount of oxygen.
- Patient's oxygen tank is empty.
- Wrong body part is x-rayed.
- Wrong patient is x-rayed.
- Patient gets skin tears while getting a radiographic study completed.
- Patient's IV gets dislodged.
- Patient falls.

11b. REPORTING INCIDENTS INVOLVING STUDENTS OR STAFF

If a student is injured while engaged in clinical activities, an employee incident report should be completed. The employee incident reports are to be completed via the intranet using RL Solutions.

After the incident report is completed, the Program Faculty should be notified. Depending on student condition, the student or the Program Faculty will contact Occupational Health Services or the Emergency Department to be seen. The completed paperwork from the nurse/physician seeing the student should be submitted to the Program Director.

12. JEANNE CLEARY ACT (SHS Policy 378) *formerly the Crime Awareness and Campus Security Act*

SHS policies are located at: <http://www.readinghospital.org/sohs/policies>

12a. MISSING STUDENT (SHS Policy 377)

SHS policies are located at: <http://www.readinghospital.org/sohs/policies>

13. CAMPUS CRIME REPORT

The most current Campus Crime Report may be accessed via The Reading Hospital and Medical Center's intranet: <http://www.readinghospital.org/sohs/policies>

14. EMERGENCY (SHS Policy 379)

SHS policies are located at: <http://www.readinghospital.org/sohs/policies>

15. EMERGENCY PLAN (SHS Policy 380)

SHS policies are located at: <http://www.readinghospital.org/sohs/policies>

16. STUDENT PARTICIPATION in TRHMC EMERGENCY MANAGEMENT (SHS Policy 381)

SHS policies are located at: <http://www.readinghospital.org/sohs/policies>

17. FIRE-SAFETY – GENERAL INFORMAITON (SHS Policy 382)

SHS policies are located at: <http://www.readinghospital.org/sohs/policies>

18. FIRE RELATED EMERGENGIES

18a. FIRE – MAIN CAMPUS CLINICAL SITES

Unless noted below, all areas of the hospital are equipped with a fire alarm system that produces an audible tone followed by a voice announcement identifying the location of the fire. Additional information is displayed on the annunciator panels throughout the hospital. The location of the annunciator panels can be found in the Hospital telephone directories. All patient care buildings are equipped with flashing strobe light warning signals. These lights operate simultaneously with the fire alarm system.

18b. FIRE – SATELLITE CLINICAL SITES:

Exeter Imaging Center (EIC) Call 911
Spring Ridge Imaging (SRI) Call 911

18c. FIRE – DOCTORS OFFICE BUILDING:

Due to the out-patient nature of the DOB areas identified below, smoke or fire emergencies will be announced through the overhead PA system using an audible bell sequence similar to Morse code. The following codes will signify a fire or smoke emergency in these areas:

Doctor’s Office Building
DOB Suite 135 1-1-2 1-1-3 1-1-4 1-1-5
DOB Suite 125 (Women’s Center) 2-1-1 2-1-2 2-1-3 2-1-4

19. HAZARD COMMUNICATION STANDARD (SHS Policy 383)

SHS policies are located at: <http://www.readinghospital.org/sohs/policies>

- Revised 8/01
- Reviewed 7/03
- Revised 9/04
- Revised 6/05
- Revised 7/08
- Revised 8/10
- Revised 8/11
- Revised 8/12