Policy Title	Radiation Safety
Policy Number:	RAD 8.07
Department:	SOMI
Functional Area:	Academic Affairs
Contributing Department	
Approved by:	RHEI Leadership Team
Effective Date:	8/1/2025
Version:	1
Status:	Approved
Manual	To be entered by Compliance360 System administrators or N/A if not in C360
Section	RAD 8

I. Mission, Vision and Values

This policy reflects our commitment to human dignity, integrity, compassion, stewardship, and service by guiding decisions and actions that uphold respect for all individuals and promote excellence in our work.

This policy aligns with our mission of extending the compassionate ministry of Jesus by improving the health and well-being of our communities and providing good help to those in need, especially the poor, dying, and underserved by ensuring that our practices support ethical, effective, and accountable service across all areas of the organization.

II. Policy

It is the policy of Bon Secours St. Mary's Hospital School of Medical Imaging (SOMI) to ensure that students practice proper radiation safety.

III. Purpose

The purpose of this policy is to promote the responsible use of radiation in the healthcare setting as well as to promote proper radiation safety practices.

IV. Scope

This policy applies to all SOMI students.

V. Policy Details

Shielding

Students are encouraged to shield patients from unnecessary ionizing radiation to protect reproductive organs and/or bone marrow, as deemed necessary.

Failure to Shield

Unless shielding would endanger the patient, obscure pertinent anatomy, or compromise the diagnostic quality of the image, failure to shield appropriately may result in disciplinary action.

Students that perform a competency without shielding appropriately during the procedure or fail to provide protection for themselves, patient, or others through use of lead aprons, short exposure time, distance, and PMDs, may receive a point deduction under radiation safety.

Radiation Protection

Students are not to hold patients or an image receptor during an x-ray exposure.

If a patient requires assistance during a radiographic procedure to hold still, the person assisting the patient needs to be provided a lead shield.

Lead aprons and thyroid shields are to be used during all departmental and portable fluoroscopy procedures.

Students are to wear a lead apron regardless of the distance from primary beam.

For all portable radiographic procedures, **2 lead aprons must be provided,** one apron for the student and one apron for the patient. All students must wear a full lead apron and maintain a six (6) foot distance from the primary beam when making the exposure.

When wearing a lead apron, the Personnel Monitoring Device (PMD) is to be worn on the collar, outside the apron.

All females (patients, caregivers, and/or parents) of childbearing age, are to be asked:

- "Is there any chance you could be pregnant, trying to get pregnant, or potentially pregnant?", prior to producing radiation.

- A positive response or an unsure answer requires the student to report the response to a qualified radiographer.

Repeat Radiographs

Unsatisfactory radiographs shall be repeated **ONLY** in the presence of a qualified radiographer, regardless of the student's level. Repeats must be documented in Trajecsys.

Personnel Monitoring Devices

PMDs are to be worn at the collar level and cannot be worn for employment.

Students that lose or misplace their PMD must report the loss to the Program Coordinator Clinical Education Experience and the School Radiation Safety Officer as soon as possible.

Students are not allowed in clinic without their PMD.

The PMD is due by the due date (located on the device). Failure to turn in PMDs on time will result in the student taking responsibility for returning it to the School Radiation Safety Officer as soon as possible and a potential clinical grade reduction. Students that are absent from class must turn in their PMD on the first day back to school to the School Radiation Safety Officer.

Radiation Dosimeter Reports

Radiation Dosimetry Reports are available quarterly and monitored by the School Radiation Safety Officer. Any unusual readings will be evaluated, and the student notified. Radiation Dosimeter Reports are permanently maintained by St. Mary's Hospital Radiology Department.

Sanctions

Disciplinary sanctions occur in the following sequence:

1. The first infraction will result in a written letter of warning that shall be provided to the student and filed in the student's permanent record.
2. A second infraction will result in a two-day suspension. Any student who has been suspended shall remain on disciplinary probation for the remainder of the student's enrollment at the school.
3. Any additional infractions may result in program dismissal.

VI. Definitions

None

VII. Attachments

Attachment A: Procedure for Implementation of Radiation Safety Program

VIII. Related Policies and Procedures

None

IX. Regulatory Notices

Nothing in this policy creates a contractual relationship between Bon Secours St. Mary's Hospital School of Medical Imaging (SOMI), a department owned and controlled by Bon Secours St. Mary's Hospital of Richmond, LLC, and any party. SOMI, in its sole discretion, reserves the right to amend, terminate or discontinue this policy at any time, with or without advance notice.

X. Version Control

Version	Effective Date	Next Review Date	Description	Supersedes, if applicable	Prepared By
1.0	5/20/2022	N/A	New Template & Revisions	N/A	Program Coordinator Clinical Education Experience
2.0	10/7/2022	N/A	Revisions	1.0	Program Coordinator Clinical Education Experience
3.0	6/8/2023	N/A	New Template & New Numbering	2.0	Program Coordinator Clinical Education Experience
4.0	7/24/2024	N/A	Updated Language	3.0	Program Coordinator Clinical Education Experience
4.0	2/19/2025	2/19/2028	Reviewed No Changes	4.0	Program Coordinator Clinical Education Experience
1	2/19/2025	2/19/2028	Version changed – BSMH Template Adopted	4.0	Program Coordinator Clinical Education Experience

This policy/procedure/guideline is not intended to establish a standard of clinical or non-clinical care or practice. Rather, this policy/procedure/guideline creates a general tool to help guide decision-making with the understanding that different action(s) may be necessary in response to the totality of the circumstances presented.

Sites revised 05/06/2025- Bon Secours Mercy Health adopts the above policy, procedure, policy & procedure, guideline, manual / reference guide / instructions, or principle / standard / guidance document for all Bon Secours Mercy Health entities including, but not limited to, facilities doing business as Mercy Health – St. Vincent Medical Center, St. Vincent – St. Charles Hospital, St. Vincent – St. Anne Hospital, Mercy Health – Perrysburg Medical Center, Mercy Health – Tiffin Hospital, Mercy Health – Willard

Hospital, Mercy Health – Defiance Hospital, Mercy Health Allen Hospital LLC, Mercy Health - Lorain Hospital, Mercy Health St. Elizabeth Youngstown Hospital, Mercy Health St. Joseph Warren Hospital, Mercy Health - St. Elizabeth Boardman Hospital, Mercy Health - St. Rita's Medical Center, Mercy Health – Springfield Regional Medical Center, Mercy Health - Urbana Hospital, Mercy Health - Anderson Hospital, Mercy Health - Clermont Hospital, Mercy Health – Fairfield Hospital, Mercy Health - West Hospital, The Jewish Hospital – Mercy Health, Mercy Health – Kings Mills Hospital, LLC, Mercy Health - Lourdes Hospital LLC, Mercy Health – Marcum and Wallace Hospital, Chesapeake Hospital Corporation DBA Rappahannock General, Maryview Hospital, Bon Secours Richmond Community, Bon Secours Memorial Regional Medical Center, Bon Secours – St. Mary's Hospital, Bon Secours St. Francis Health System, Bon Secours St. Francis Medical Center, Bon Secours Mary Immaculate Hospital, Bon Secours - Southside Medical Center, Bon Secours Mercy Health Franklin, LLC, Southern Virginia Medical Center, and Bon Secours Harbour View Medical Center. This also may apply to Bon Secours Mercy Health Medical Group LLC and its medical group affiliates.

St. Mary's Hospital School of Medical Imaging

Procedure for Implementation of Radiation Safety Program

Objective: To administer the radiation safety program in accordance with Bon Secours St. Mary's Hospital radiation safety policies as well as State and Federal Guidelines in order to assure that ALARA principles are being observed.

Scope: The radiation safety program affects students, faculty, and staff during their time associated with the program.

General Concept: Personnel Monitoring Devices (PMDs) are utilized by students, faculty, and staff of the imaging program to monitor their exposure to occupational ionizing radiation. The PMDs are exchanged quarterly. The Radiation Dosimeter Report is received from St. Mary's Hospital and reviewed by the Program Radiation Safety Officer (PRSO) for the School of Medical Imaging (SOMI). Once the reports are received, they are shared with the students, faculty, and staff within 30 days. While in the presence of the students, the PRSO for SOMI reviews the ALARA concept for which the reports support and councils any student whose dosimeter readings fall outside predetermined acceptable range. A Radiation Safety Guidance form is used to document the counseling session. The PRSO for SOMI maintains copies of guidance forms as well as the Radiation Dosimetry reports in a secure location.

Policies Referenced:

- Bon Secours St. Mary's Hospital Radiation Safety Program
  - Program policies:
    - RAD 8.12 Pregnancy
    - RAD 8.07 Radiation Safety
  - National Council on Radiation Protection and Measurement (NCRP) recommended dose limits for education and training.

I. Radiation Safety Program Structure and Organization

1. The Bon Secours St. Mary's Hospital School of Medical Imaging is sponsored by Bon Secours St. Mary's Hospital and receives administrative support for the initiation and record keeping for the PMDs.

2. As the sponsoring agency, the Bon Secours St. Mary's Hospital Radiation Safety Officer (RSO) reviews the Radiation Dosimeter report according to their radiation safety program and implements actions if necessary, based on the findings.

3. The School of Medical Imaging receives Radiation Dosimetry reports from St. Mary's Hospital and maintains these records as part of its own radiation safety program.
4. The Radiation Dosimetry reports are reviewed by the Program Radiation Safety Officer (PRSO) and disseminated to the students within 30 days.

II. Entrance into the Medical Imaging program

1. Students, faculty, and staff entering the clinical portion of a Medical Imaging Program (to include modality interns) will submit a request for PMD forms as needed.
2. All new students must complete the Request for PMD form and one of the following:
    - "No Prior Exposure" form for students who have never been monitored for ionizing radiation.
    - "Previous Record of Exposure" forms for students who have been monitored for ionizing radiation.
3. The PRSO forwards the information to the St. Mary's Hospital RSO for ordering of the PMDs.
4. The PRSO will receive the new PMDs from the St. Mary's Hospital RSO and distribute the PMDs to the new students during campus orientation.

III. Exchange of PMDs

1. PMDs are exchanged quarterly in accordance with established policies.
2. The PRSO ensures collection of PMDs and delivers to the St. Mary's Hospital RSO.
3. The PRSO ensures delivery of the new PMDs to the school for distribution to the students.

IV. Records and ALARA

<u>Records:</u>

1. The RSO notifies the PRSO that the Radiation Dosimetry reports are ready.
2. The PRSO will disseminate Radiation Dosimeter report readings to the students within 30 days of their delivery to the School of Medical Imaging.
3. Students will initial their readings signifying that they are aware of their exposure for the recorded period.
4. The Radiation Dosimetry reports are stored by the PRSO in a secure location.

ALARA:

1. In accordance with ALARA policy, the dosimeter readings are reviewed by the St. Mary's Hospital RSO for ALARA investigational level 1 or level 2 alerts.
2. Participants of the Medical Imaging Program radiation dose should be maintained below the NCRP occupation recommended level. Participants of the Medical Imaging Program follow the dose limits recommended by the NCRP Annual Education and Training exposures of 100 mrem (1 mSv) per year. This equates to a monthly dose limit for students of 8 mrem/month (0.08mSv).
3. The PRSO reviews the Radiation Dosimetry reports for additional information:
4. A reading over 24 mrem (0.24 mSv) using the Deep Dose Equivalent (DDE) measurement in any quarter will require an administrative check on radiation practices of that student. Occasionally the student does not fully appreciate the dangers of radiation at the start of their career and every effort should be made to impress upon them the need for diligence. This extra measure allows for discussion and an opportunity to review safe practices around radiation sources. A Radiation Safety Guidance Form is used for this purpose. In addition, an ALARA investigation letter is completed by the RSO and a copy sent to the PRSO to maintain in the students' file.
5. The total dose for a participant enrolled in the 22-month Medical Imaging Program should not exceed 176 mrem (1.76 mSv). If a participant is required to repeat a clinical semester, an additional quarterly dose of 24 mrem (0.24 mSv) is permitted.

V. Pregnancy

1. Students wishing to declare pregnancy will complete the Pregnancy Declaration Forms as delineated in Policy RAD 8.12 (Pregnancy Policy). The PRSO will forward the Pregnancy Declaration Forms to the St. Mary's Hospital RSO for action.
2. The PRSO will verify that the fetal PMD is received and exchanged on a monthly basis.
3. The PRSO will ensure that interim Radiation Dosimeter reports are forwarded by SMH to SOMI.
4. Students with fetal badges will review and initial Radiation Dosimeter reports signifying their awareness of the radiation exposure received by the fetus in comparison to published standards ofallowable fetal exposure.
5. The total dose for a pregnant student should not exceed 50 mrem (0.50 mSv) per month during the gestational period. The PRSO will maintain and review monthly exposure reports and notify the pregnant student if monthly exposure begins to exceed 25 mrem (0.25 mSv). The PRSO will provide radiation protection remediation if exposure begins to exceed monthly safety threshold of 25 mrem (0.25 mSv).

VI. Guidelines for when students, faculty, or staff discontinue with SOMI.

1. Guidelines

    a. The student, faculty, or staff member will turn in their PMD to the PRSO.
    b. The PRSO will notify the St. Mary's Hospital RSO of the change in status.
    c. The student, faculty, or staff member will be removed from the active PMD roster and will be

no longer monitored for exposure by SOMI.

d. If a student, faculty, or staff member receiving fetal monitoring discontinues with SOMI during the pregnancy, both the individual monitoring and fetal monitoring will end.

2. Requests for dosimeter records

   a. Any current or former student, faculty, or staff member may request their Radiation Dosimeter Report reading records.

   b. Requests received for Radiation Dosimeter Report reading records will be forwarded to the St. Mary's Hospital RSO for action.

8/2013, 8/2014, 8/2015, 4/2017, 11/2017, 3/2018, 5/2018, 6/2019, 5/2022, 7/2024, 1/2025