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The Practice Standards for Medical Imaging and Radiation Therapy

Advisory Opinion Statement
Placement of Personal Radiation Monitoring Devices

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Placement of Personal Radiation Monitoring Devices

After research of evidentiary documentation such as current literature, curricula, position statements, scopes of practice, laws, federal and state regulations and inquiries received by the American Society of Radiologic Technologists Governance Department, the American Society of Radiologic Technologists issued opinions contained herein.

Accountability and Responsibility of Medical Imaging and Radiation Therapy Professionals

The profession holds medical imaging and radiation therapy professionals responsible and accountable for rendering safe, effective clinical services to patients and for judgments exercised and actions taken in the course of providing those services.

Acts that are within the recognized scope of practice for a given license or certification may be performed only by those individuals who possess the education and skill proficiency to perform those acts in a safe and effective manner.

The medical imaging and radiation therapy professional's performance should be consistent with state and federal laws, established standards of practice, facility policies and procedures, and be evidence-based.

Advisory Opinion

It is the opinion of the American Society of Radiologic Technologists that based upon current literature; the curricula set forth by the ASRT and Society of Nuclear Medicine and Molecular Imaging; certification specifications by the American Registry of Radiologic Technologists and Nuclear Medicine Technology Certification Board; regulatory requirements; American Association of Physicists in Medicine recommendations; and where federal or state law and/or institutional policy permits that:

1. Radiation workers wear a personal radiation monitoring device outside of protective apparel with the label facing the radiation source at the level of the thyroid to approximate the maximum dose to the head and neck.
2. In specific cases, a whole-body monitor may be indicated. This monitor should be worn at the waist under a protective lead apron.
3. In some cases, a ring monitor may be indicated. This monitor should be worn on the dominant hand with the label facing the radiation source.

GRADE: Strong

Rationale

The ASRT's position is to determine the practice standards and scopes of practice for medical imaging and radiation therapy professionals. The practice standards' general stipulation emphasizes the importance of an individual being educationally prepared and clinically

competent to practice in the profession of medical imaging and radiation therapy. With proper education and proven competence, the determination of proper use of personal monitoring devices ensures a safe environment in which to provide quality patient services.

Definitions

The following definitions can be found in the Glossary to The Practice Standards for Medical Imaging and Radiation Therapy:

Personal radiation monitoring device

Evidentiary Documentation

Current Literature

Bushong S. Occupational radiation dose management. In: *Radiologic Science for Technologists: Physics, Biology, and Protection* 11th Ed. Elsevier. 2017.

Statkiewicz-Sherer M, Visconti P, Ritenour, E. Radiation monitoring. In: *Radiation Protection in Medical Radiography*. Elsevier. 2018.

U.S. Department of Labor. Occupational Safety and Health Standards web page. Occupational Safety & Health Administration Web site.

www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10098.

Standard Number: 1910.1096(d)(3)(i).

(Quality of Evidence: High)

Curriculum

The ASRT curricula for all practice areas were reviewed.

2014 ASRT Bone Densitometry Curriculum

2015 ASRT Limited X-ray Machine Operator curriculum

2004 ASRT Positron Emission Tomography (PET)- Computed Tomography (CT) curriculum

2014 ASRT Radiation Therapy curriculum

2017 ASRT Radiography Curriculum

2015-ASRT Radiologist Assistant curriculum

Additional nationally recognized curricula were reviewed.

Society of Nuclear Medicine and Molecular Imaging – Technologist Section
2013 Nuclear Medicine Technology Competency-Based Curriculum Guide 5th
Edition

(Quality of Evidence: High)

Certification Agency Content Specifications

The American Registry of Radiologic Technologists (ARRT) content specifications:

2017 Nuclear Medicine

2017 Radiation Therapy

2017 Radiography

2018 Registered Radiologist Assistant

2017 Cardiac-Interventional Radiography

2017 Vascular-Interventional Radiography

2018 Limited Scope of Practice in Radiography

Nuclear Medicine Technology Certification Board (NMTCB)

2017 Components of Preparedness.

(Quality of Evidence: High)

Federal and State Statute Reference(s)

10 CFR Part 19.12 Instruction to Workers

10 CFR Part 20.1208 Dose Equivalent to an Embryo/Fetus

10 CFR Part 20.1502 Conditions Requiring Individual Monitoring of External and Internal Occupational Dose

NRC Regulatory Guide 8.34 Monitoring Criteria and Methods to Calculate Occupational Radiation Doses

NRC Regulatory Guide 8.36 Radiation Dose to the Embryo/Fetus

NRC Regulatory Guide 8.7 Instructions for Recording and Reporting Occupational Radiation Exposure Data

(Quality of Evidence: High)

Other

American Association of Physicists in Medicine (AAPM) Report 58 Appendix A: Radiation Safety and Quality Assurance Program

(Quality of Evidence: High)

Determining Scope of Practice

Each medical imaging and radiation therapy professional must exercise professional and prudent judgment in determining whether the performance of a given act is within the scope of practice for which the medical imaging and radiation therapy professional is licensed, if applicable within the jurisdiction in which he/she is employed, educationally prepared and clinically competent to perform.

The ASRT issues advisory opinions as to what constitutes appropriate practice. As such, an opinion is not a regulation or statute and does not have the force and effect of law. It is issued as a guidepost to medical imaging and radiation therapy professionals who engage in safe practice. Federal and state laws, accreditation standards necessary to participate in government programs, and institutional policies and procedures supersede these standards. The individual must be educationally prepared and clinically competent as a prerequisite to professional practice.

Approved: July 1, 2012
Amended, Main Motion, C-13.21 & C13.23, 2013
Amended, Main Motion, C-16.15, 2016
Amended, Main Motion, C-18.09, 2018
ASRT House of Delegates

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