



# The Practice Standards for Medical Imaging and Radiation Therapy

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**Advisory Opinion Statement**  
Medication Administration by Medical Imaging and Radiation Therapy Professionals

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## **Medication Administration by Medical Imaging and Radiation Therapy Professionals**

After a study 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 the 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; curricula set forth by the ASRT, Society of Nuclear Medicine and Molecular Imaging and the National Educational Curriculum for Sonography; certification examination specifications by the American Registry of Radiologic Technologists, Nuclear Medicine Technology Certification Board and Cardiovascular Credentialing International; recommendations by the American College of Radiology and Centers for Medicare & Medicaid Services; and where federal or state law and/or institutional policy permits:

1. It is within the scope of practice for medical imaging and radiation therapy professionals to perform the parenteral administration of contrast media and other medications.
2. The parenteral administration of contrast media and other medications by medical imaging and radiation therapy professionals shall be performed only when a licensed practitioner is immediately available to ensure proper diagnosis and treatment of adverse events.

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 parenteral administration of contrast media and other medications by medical imaging and radiation therapy professionals provides quality patient services in a safe environment when a licensed practitioner is immediately available to ensure proper diagnoses and treatment of possible adverse events.

### **Definitions**

Adverse event: Any undesirable experience associated with the use of a medical product in a patient.

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

Clinically competent  
Educationally prepared  
Licensed practitioner  
Medication

### **Evidentiary Documentation**

#### *Current Literature*

American College of Radiology. *ACR Accreditation Facility Toolkit. Policy and Procedure Checklist*. <http://www.acraccreditation.org/~media/ACRAccreditation/Documents/Site-Survey-Toolkit/Tool-Kit-for-Practice-Sites.pdf?la=en> 2016.

American College of Radiology. *ACR Manual on Contrast Media, Version 10.3*. <http://www.acr.org/quality-safety/resources/contrast-manual> 2017.

American College of Radiology. *ACR Practice Parameter for Performing and Interpreting Magnetic Resonance Imaging (MRI)*. <https://www.acr.org/~media/ACR/Files/Practice-Parameters/mr-perf-interpret.pdf?la=en> 2017.

American College of Radiology. *ACR-SAR Practice Parameter for the Performance of Excretory Urography*. <https://www.acr.org/~media/ACR/Files/Practice-Parameters/excretoryurog.pdf?la=en>. 2014.

American College of Radiology. *ACR-SPR Practice Parameter for the Use of Intravascular Contrast Media*. <https://www.acr.org/~media/ACR/Files/Practice-Parameters/ivcm.pdf?la=en>. 2017.

American College of Radiology. *ACR-SPR Technical Standard for Diagnostic Procedures Using Radiopharmaceuticals*. <https://www.acr.org/~media/ACR/Files/Practice-Parameters/radiopharm.pdf?la=en>. 2016.

Centers for Medicare & Medicaid Services. Chapter 15, Covered medical and other health services. *Medicare Benefit Policy Manual*.

<https://www.cms.gov/manuals/downloads/bp102c15.pdf>. 2017.

(Quality of Evidence: High)

Curriculum

The ASRT curricula for all practice areas were reviewed.

2014 ASRT Cardiac-Interventional and Vascular-Interventional Curriculum

2013 ASRT Computed Tomography Curriculum

2013 ASRT Mammography Curriculum

2015 ASRT Magnetic Resonance Curriculum

2014 ASRT Radiation Therapy Professional Curriculum

2017 ASRT Radiography Curriculum

2015 ASRT Radiologist Assistant Curriculum

Additional nationally recognized curricula were reviewed.

Joint Review Committee on Education in Diagnostic Medical Sonography

2016 National Education Curriculum for Sonography

NEC Common Curricula

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 Cardiac-Interventional Radiography

2017 Computed Tomography

2017 Magnetic Resonance Imaging

2017 Nuclear Medicine

2017 Radiation Therapy

2017 Radiography

2018 Registered Radiologist Assistant

2017 Vascular-Interventional Radiography

Cardiovascular Credentialing International (CCI)

2016 Examination Application and Overview, Registered Cardiovascular Invasive Specialist (RCIS) exam overview task list.

Nuclear Medicine Technology Certification Board (NMTCB)

2017 Components of Preparedness.

(Quality of evidence: High)

Scopes of Practice and Practice Standards Reference

ASRT Practice Standards for Medical Imaging and Radiation Therapy.

Applies to all modality-specific scopes of practice except medical dosimetrists and limited x-ray machine operators.

Identifying, preparing and/or administering medications as prescribed by a licensed practitioner.

(Quality of evidence: High)

Federal and State Statute Reference(s)

Not applicable.

(Quality of evidence: not applicable)

Other

Not applicable.

(Quality of evidence: not applicable)

**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 and, 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 and C13.23, 2013

Amended, Main Motion, C-16.13, 2016

Amended, Main Motion, C-17.09, 2017

Amended, Main Motion, C-18.11, 2018

ASRT House of Delegates

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