The Practice Standards for Medical Imaging and Radiation Therapy

Radiography Practice Standards
Preface to Practice Standards

A profession’s practice standards serve as a guide for appropriate practice. The practice standards define the practice and establish general criteria to determine compliance. Practice standards are authoritative statements established by the profession for judging the quality of practice, service and education provided by individuals who practice in medical imaging and radiation therapy.

Practice standards can be used by individual facilities to develop job descriptions and practice parameters. Those outside the imaging, therapeutic and radiation science community can use the standards as an overview of the role and responsibilities of the individual as defined by the profession.

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs and lawful institutional policies and procedures supersede these standards.

Format

The Practice Standards for Medical Imaging and Radiation Therapy are divided into six sections: introduction, scope of practice, clinical performance, quality performance, professional performance and advisory opinion statements.

Introduction. The introduction provides definitions for the practice and the education and certification for individuals in addition to an overview of the specific practice.

Scope of Practice. The scope of practice delineates the parameters of the specific practice.

Clinical Performance Standards. The clinical performance standards define the activities of the individual in the care of patients and delivery of diagnostic or therapeutic procedures. The section incorporates patient assessment and management with procedural analysis, performance and evaluation.

Quality Performance Standards. The quality performance standards define the activities of the individual in the technical areas of performance including equipment and material assessment, safety standards and total quality management.

Professional Performance Standards. The professional performance standards define the activities of the individual in the areas of education, interpersonal relationships, self-assessment and ethical behavior.

Advisory Opinion Statements. The advisory opinions are interpretations of the standards intended for clarification and guidance for specific practice issues.
Each performance standards section is subdivided into individual standards. The standards are numbered and followed by a term or set of terms that identify the standards, such as “assessment” or “analysis/determination.” The next statement is the expected performance of the individual when performing the procedure or treatment. A rationale statement follows and explains why an individual should adhere to the particular standard of performance.

Criteria. Criteria are used in evaluating an individual’s performance. Each set is divided into two parts: the general criteria and the specific criteria. Both criteria should be used when evaluating performance.

General Criteria. General criteria are written in a style that applies to imaging and radiation science individuals. These criteria are the same in all of the practice standards, with the exception of limited x-ray machine operators, and should be used for the appropriate area of practice.

Specific Criteria. Specific criteria meet the needs of the individuals in the various areas of professional performance. While many areas of performance within imaging and radiation sciences are similar, others are not. The specific criteria are drafted with these differences in mind.
Introduction to Radiography Practice Standards

Definition

The practice of radiography is performed by health care professionals responsible for the administration of ionizing radiation for diagnostic, therapeutic or research purposes. A radiographer performs radiographic procedures at the request of and for interpretation by a licensed independent practitioner.

The complex nature of disease processes involves multiple imaging modalities. Although an interdisciplinary team of clinicians, radiographers and support staff plays a critical role in the delivery of health services, it is the radiographer who performs the radiographic procedure that creates the images needed for diagnosis.

Radiography integrates scientific knowledge, technical skills, patient interaction and compassionate care resulting in diagnostic information. Radiographers recognize patient conditions essential for successful completion of the procedure.

Radiographers must demonstrate an understanding of human anatomy, physiology, pathology and medical terminology.

Radiographers must maintain a high degree of accuracy in radiographic positioning and exposure technique. They must possess, utilize and maintain knowledge of radiation protection and safety. Radiographers independently perform or assist the licensed independent practitioner in the completion of radiographic procedures. Radiographers prepare, administer and document activities related to medications in accordance with state and federal regulations or lawful institutional policy.

Radiographers are the primary liaison between patients, licensed independent practitioners and other members of the support team. Radiographers must remain sensitive to needs of the patient through good communication, patient assessment, patient monitoring and patient care skills. As members of the health care team, radiographers participate in quality improvement processes and continually assess their professional performance.

Radiographers think critically and use independent, professional and ethical judgment in all aspects of their work. They engage in continuing education to include their area of practice to enhance patient care, public education, knowledge and technical competence.

Education and Certification

Radiographers prepare for their role on the interdisciplinary team by successfully completing an accredited educational program in radiologic technology and attaining appropriate primary certification by the American Registry of Radiologic Technologists.

Those passing the ARRT examination use the credential R.T.(R).
To maintain ARRT certification, radiographers must complete appropriate continuing education and meet other requirements to sustain a level of expertise and awareness of changes and advances in practice.

**Overview**

An interdisciplinary team of radiologists, radiographers and other support staff plays a critical role in the delivery of health services as new modalities emerge and the need for imaging procedures increases. A comprehensive procedure list for the radiographer is impractical because clinical activities vary by practice needs and expertise of the radiographer. As radiographers gain more experience, knowledge and clinical competence, the clinical activities for the radiographer may evolve.

State statute, regulation or lawful community custom may dictate practice parameters. *Wherever there is a conflict between these standards and state or local statutes or regulations, the state or local statutes or regulations supersede these standards.* A radiographer should, within the boundaries of all applicable legal requirements and restrictions, exercise individual thought, judgment and discretion in the performance of the procedure.
Radiographer Scope of Practice

The scope of practice of the medical imaging and radiation therapy professional includes:
- Receiving, relaying and documenting verbal, written and electronic orders in the patient’s medical record.
- Corroborating patient’s clinical history with procedure, ensuring information is documented and available for use by a licensed independent practitioner.
- Verifying informed consent.
- Assuming responsibility for patient needs during procedures.
- Preparing patients for procedures.
- Applying principles of ALARA to minimize exposure to patient, self and others.
- Performing venipuncture as prescribed by a licensed independent practitioner.
- Starting and maintaining intravenous access as prescribed by a licensed independent practitioner.
- Identifying, preparing and/or administering medications as prescribed by a licensed independent practitioner.
- Evaluating images for technical quality, ensuring proper identification is recorded.
- Identifying and managing emergency situations.
- Providing education.
- Educating and monitoring students and other health care providers.
- Performing ongoing quality assurance activities.

The scope of practice of the radiographer also includes:
1. Performing diagnostic radiographic and noninterpretive fluoroscopic procedures as prescribed by a licensed independent practitioner.
2. Determining technical exposure factors.
3. Assisting licensed independent practitioner with fluoroscopic and specialized radiologic procedures.

4. Applying the principles of patient safety during all aspects of radiographic procedures, including assisting and transporting patients.
Radiography Clinical Performance Standards

Standard One – Assessment

The radiographer collects pertinent data about the patient and the procedure.

Rationale
Information about the patient’s health status is essential in providing appropriate imaging and therapeutic services.

General Stipulation
The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs and lawful institutional policies and procedures supersede these standards.

General Criteria
The radiographer:

1. Gathers relevant information from the patient, medical record, significant others and health care providers.

2. Reconfirms patient identification and verifies the procedure requested or prescribed.

3. Reviews the patient’s medical record to verify the appropriateness of a specific examination or procedure.

4. Verifies the patient’s pregnancy status.

5. Assesses factors that may contraindicate the procedure, such as medications, patient history, insufficient patient preparation or artifacts.

6. Recognizes signs and symptoms of an emergency.

Specific Criteria
The radiographer:

1. Assesses patient risk for allergic reaction to medication prior to administration.

2. Locates and reviews previous examinations for comparison.

3. Identifies and removes artifact-producing objects.
Radiography Clinical Performance Standards

Standard Two – Analysis/Determination

The radiographer analyzes the information obtained during the assessment phase and develops an action plan for completing the procedure.

Rationale
Determining the most appropriate action plan enhances patient safety and comfort, optimizes diagnostic and therapeutic quality and improves efficiency.

General Stipulation
The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs and lawful institutional policies and procedures supersede these standards.

General Criteria
The radiographer:

1. Selects the most appropriate and efficient action plan after reviewing all pertinent data and assessing the patient’s abilities and condition.

2. Employs professional judgment to adapt imaging and therapeutic procedures to improve diagnostic quality and therapeutic outcome.

3. Consulls appropriate medical personnel to determine a modified action plan.

4. Determines the need for and selects supplies, accessory equipment, shielding and immobilization devices.

5. Determines the course of action for an emergency or problem situation.

6. Determines that all procedural requirements are in place to achieve a quality diagnostic or therapeutic procedure.

Specific Criteria
The radiographer:

1. Reviews lab values prior to administering medication and beginning specialized radiologic procedures.

2. Determines type and dose of contrast agent to be administered, based on the patient’s age, weight and medical/physical status.

3. Verifies that exposure indicator data for digital radiographic systems has not been altered or modified and is included in the Digital Imaging Communications in Medicine (DICOM) header and on images printed to media.
4. Analyzes digital images to determine utilization of appropriate imaging parameters.
Radiography Clinical Performance Standards

Standard Three – Patient Education

The radiographer provides information about the procedure and related health issues according to protocol.

Rationale
Communication and education are necessary to establish a positive relationship.

General Stipulation
The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs and lawful institutional policies and procedures supersede these standards.

General Criteria
The radiographer:
1. Verifies that the patient has consented to the procedure and fully understands its risks, benefits, alternatives and follow-up. The radiographer verifies that written or informed consent has been obtained.
2. Provides accurate explanations and instructions at an appropriate time and at a level the patients and their care providers can understand. Addresses patient questions and concerns regarding the procedure.
3. Refers questions about diagnosis, treatment or prognosis to a licensed independent practitioner.
4. Provides related patient education.
5. Explains precautions regarding administration of medications.

Specific Criteria
The radiographer:
1. Consults with other departments for patient services.
2. Instructs patients regarding preparation prior to imaging procedures, including providing information about oral or bowel preparation and allergy preparation.
Radiography Clinical Performance Standards

Standard Four – Performance

The radiographer performs the action plan.

Rationale
Quality patient services are provided through the safe and accurate performance of a deliberate plan of action.

General Stipulation
The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs and lawful institutional policies and procedures supersede these standards.

General Criteria
The radiographer:
1. Performs procedural timeout.
2. Implements an action plan.
3. Explains each step of the action plan to the patient as it occurs and elicits the cooperation of the patient.
4. Uses an integrated team approach.
5. Modifies the action plan according to changes in the clinical situation.
6. Administers first aid or provides life support.
7. Utilizes accessory equipment.
8. Assesses and monitors the patient’s physical, emotional and mental status.
9. Applies principles of sterile technique.
10. Positions patient for anatomic area of interest, respecting patient ability and comfort.
11. Immobilizes patient for procedure.
12. Monitors the patient for reactions to medications.

Specific Criteria
The radiographer:
1. Employs proper radiation safety practices.
2. Utilizes technical factors according to equipment specifications to meet the ALARA principle.


4. Uses appropriate pre-exposure radiopaque markers for anatomical and procedural purposes.

5. Selects the best position for the demonstration of anatomy.

6. Injects medication into peripherally inserted central catheter lines or ports.
Radiography Clinical Performance Standards

Standard Five – Evaluation

The radiographer determines whether the goals of the action plan have been achieved.

Rationale
Careful examination of the procedure is important to determine that expected outcomes have been met.

General Stipulation
The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs and lawful institutional policies and procedures supersede these standards.

General Criteria
The radiographer:
1. Evaluates the patient and the procedure to identify variances that may affect the expected outcome.
2. Completes the evaluation process in a timely, accurate and comprehensive manner.
3. Measures the procedure against established policies, protocols and benchmarks.
4. Identifies exceptions to the expected outcome.
5. Develops a revised action plan to achieve the intended outcome.
6. Communicates revised action plan to appropriate team members.

Specific Criteria
The radiographer:
1. Evaluates images for positioning to demonstrate the anatomy of interest.
2. Evaluates images for optimal technical exposure factors.
3. Reviews images to determine if additional images will enhance the diagnostic value of the procedure.
Radiography Clinical Performance Standards

Standard Six – Implementation

The radiographer implements the revised action plan.

Rationale

It may be necessary to make changes to the action plan to achieve the expected outcome.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs and lawful institutional policies and procedures supersede these standards.

General Criteria

The radiographer:

1. Bases the revised plan on the patient’s condition and the most appropriate means of achieving the expected outcome.

2. Takes action based on patient and procedural variances.

3. Measures and evaluates the results of the revised action plan.

4. Notifies appropriate health care provider when immediate clinical response is necessary based on procedural findings and patient condition.

Specific Criteria

The radiographer:

1. Performs additional images that will produce the expected outcomes based upon patient condition and procedural variances.
Radiography Clinical Performance Standards

Standard Seven – Outcomes Measurement

The radiographer reviews and evaluates the outcome of the procedure.

*Rationale*
To evaluate the quality of care, the radiographer compares the actual outcome with the expected outcome.

*General Stipulation*
The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs and lawful institutional policies and procedures supersede these standards.

*General Criteria*
The radiographer:
1. Reviews all diagnostic or therapeutic data for completeness and accuracy.
2. Uses evidenced-based practice to determine whether the actual outcome is within established criteria.
3. Evaluates the process and recognizes opportunities for future changes.
4. Assesses the patient’s physical, emotional and mental status prior to discharge.

*Specific Criteria*
None added.
Radiography Clinical Performance Standards

Standard Eight – Documentation

The radiographer documents information about patient care, the procedure and the final outcome.

Rationale
Clear and precise documentation is essential for continuity of care, accuracy of care and quality assurance.

General Stipulation
The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs and lawful institutional policies and procedures supersede these standards.

General Criteria
The radiographer:
1. Documents diagnostic, treatment and patient data in the medical record in a timely, accurate and comprehensive manner.
2. Documents exceptions from the established criteria or procedures.
3. Provides pertinent information to authorized individual(s) involved in the patient’s care.
4. Records information used for billing and coding procedures.
5. Archives images or data.
6. Verifies patient consent is documented.
7. Documents procedural timeout.

Specific Criteria
The radiographer:
1. Documents fluoroscopic time.
2. Documents radiation exposure.
3. Documents the use of shielding devices and proper radiation safety practices per institutional policy.
Radiography Quality Performance Standards

Standard One – Assessment

The radiographer collects pertinent information regarding equipment, procedures and the work environment.

Rationale

The planning and provision of safe and effective medical services relies on the collection of pertinent information about equipment, procedures and the work environment.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs and lawful institutional policies and procedures supersede these standards.

General Criteria

The radiographer:

1. Determines that services are performed in a safe environment, minimizing potential hazards, in accordance with established guidelines.

2. Confirms that equipment performance, maintenance and operation comply with manufacturer’s specifications.

3. Verifies that protocol and procedure manuals include recommended criteria and are reviewed and revised.

Specific Criteria

The radiographer:

1. Maintains controlled access to restricted area during radiation exposure.

2. Follows federal and state guidelines to minimize radiation exposure levels.

3. Maintains and performs quality control on radiation safety equipment such as aprons, thyroid shields, etc.

4. Develops and maintains standardized exposure technique guidelines for all equipment.

5. Participates in radiation protection, patient safety, risk management and quality management activities.


7. Wears one or more personal radiation monitoring devices at the level indicated on the personal radiation monitoring device or as indicated by the radiation safety officer or designee.
Radiography Quality Performance Standards

Standard Two – Analysis/Determination

The radiographer analyzes information collected during the assessment phase to determine the need for changes to equipment, procedures or the work environment.

Rationale
Determination of acceptable performance is necessary to provide safe and effective services.

General Stipulation
The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs and lawful institutional policies and procedures supersede these standards.

General Criteria
The radiographer:
1. Assesses services, procedures and environment to meet or exceed established guidelines and adjusts the action plan.
2. Monitors equipment to meet or exceed established standards and adjusts the action plan.
3. Assesses and maintains the integrity of medical supplies such as a lot/expiration, sterility, etc.

Specific Criteria
None added.
Radiography Quality Performance Standards

Standard Three – Education

The radiographer informs the patient, public and other health care providers about procedures, equipment and facilities.

Rationale
Open communication promotes safe practices.

General Stipulation
The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs and lawful institutional policies and procedures supersede these standards.

General Criteria
The radiographer:

1. Elicits confidence and cooperation from the patient, the public and other health care providers by providing timely communication and effective instruction.

2. Presents explanations and instructions at the learner’s level of understanding.

3. Educates the patient, public and other health care providers about procedures along with the biological effects of radiation, sound wave or magnetic field and protection.

4. Provides information to patients, health care providers, students and the public concerning the role and responsibilities of individuals in the profession.

Specific Criteria
None added.
Radiography Quality Performance Standards

Standard Four – Performance

The radiographer performs quality assurance activities.

Rationale
Quality assurance activities provide valid and reliable information regarding the performance of equipment, materials and processes.

General Stipulation
The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs and lawful institutional policies and procedures supersede these standards.

General Criteria
The radiographer:
1. Maintains current information on equipment, materials and processes.
2. Performs ongoing quality assurance activities.
3. Performs quality control testing of equipment.

Specific Criteria
The radiographer:
1. Consults with medical physicist when performing the quality assurance tests.
2. Monitors image production to determine technical acceptability.
3. Performs routine archiving status checks.
Radiography Quality Performance Standards

Standard Five – Evaluation

The radiographer evaluates quality assurance results and establishes an appropriate action plan.

_Rationale_

Equipment, materials and processes depend on ongoing quality assurance activities that evaluate performance based on established guidelines.

_General Stipulation_

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs and lawful institutional policies and procedures supersede these standards.

_General Criteria_

The radiographer:

1. Validates quality assurance testing conditions and results.

2. Evaluates quality assurance results.

3. Formulates an action plan.

_Specific Criteria_

None added.
Radiography Quality Performance Standards

Standard Six – Implementation

The radiographer implements the quality assurance action plan for equipment, materials and processes.

Rationale
Implementation of a quality assurance action plan promotes safe and effective services.

General Stipulation
The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs and lawful institutional policies and procedures supersede these standards.

General Criteria
The radiographer:

1. Obtains assistance to support the quality assurance action plan.
2. Implements the quality assurance action plan.

Specific Criteria
None added.
Radiography Quality Performance Standards

Standard Seven – Outcomes Measurement

The radiographer assesses the outcome of the quality management action plan for equipment, materials and processes.

Rationale
Outcomes assessment is an integral part of the ongoing quality management action plan to enhance diagnostic and therapeutic services.

General Stipulation
The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs and lawful institutional policies and procedures supersede these standards.

General Criteria
The radiographer:
  1. Reviews the implementation process for accuracy and validity.
  2. Determines that actual outcomes are within established criteria.
  3. Develops and implements a modified action plan.

Specific Criteria
None added.
Radiography Quality Performance Standards

Standard Eight – Documentation

The radiographer documents quality assurance activities and results.

Rationale
Documentation provides evidence of quality assurance activities designed to enhance safety.

General Stipulation
The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs and lawful institutional policies and procedures supersede these standards.

General Criteria
The radiographer:

1. Maintains documentation of quality assurance activities, procedures and results in accordance with established guidelines.

2. Documents in a timely, accurate and comprehensive manner.

Specific Criteria
None added.
Radiography Professional Performance Standards

Standard One – Quality

The radiographer strives to provide optimal patient care.

Rationale
Patients expect and deserve optimal care during diagnosis and treatment.

General Stipulation
The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs and lawful institutional policies and procedures supersede these standards.

General Criteria
The radiographer:
1. Collaborates with others to elevate the quality of care.
2. Participates in ongoing quality assurance programs.
3. Adheres to standards, policies and established guidelines.
4. Applies professional judgment and discretion while performing diagnostic study or treatment.
5. Anticipates and responds to patient needs.
6. Respects cultural variations.

Specific Criteria
None added.
Radiography Professional Performance Standards

Standard Two – Self-Assessment

The radiographer evaluates personal performance.

Rationale
Self-assessment is necessary for personal growth and professional development.

General Stipulation
The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs and lawful institutional policies and procedures supersede these standards.

General Criteria
The radiographer:
1. Assesses personal work ethics, behaviors and attitudes.
2. Evaluates performance and recognizes opportunities for educational growth and improvement.
3. Recognizes and applies personal and professional strengths.
4. Participates in professional societies and organizations.

Specific Criteria
None added.
Radiography Professional Performance Standards

Standard Three – Education

The radiographer acquires and maintains current knowledge in practice.

Rationale
Advancements in the profession require additional knowledge and skills through education.

General Stipulation
The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs and lawful institutional policies and procedures supersede these standards.

General Criteria
The radiographer:
1. Completes education related to practice.
2. Maintains credentials and certification related to practice.
3. Participates in continuing education to maintain and enhance competency and performance.
4. Shares knowledge and expertise with others.

Specific Criteria
None added.
Radiography Professional Performance Standards

Standard Four – Collaboration and Collegiality

The radiographer promotes a positive and collaborative practice atmosphere with other members of the health care team.

Rationale
To provide quality patient care, all members of the health care team must communicate effectively and work together efficiently.

General Stipulation
The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs and lawful institutional policies and procedures supersede these standards.

General Criteria
The radiographer:
1. Shares knowledge and expertise with members of the health care team.
2. Develops collaborative partnerships to enhance quality and efficiency.
3. Promotes understanding of the profession.

Specific Criteria
None added.
Radiography Professional Performance Standards

Standard Five – Ethics

The radiographer adheres to the profession’s accepted ethical standards.

Rationale

Decisions made and actions taken on behalf of the patient are based on a sound ethical foundation.

General Stipulation

The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs and lawful institutional policies and procedures supersede these standards.

General Criteria

The radiographer:

1. Provides health care services with respect for the patient’s dignity, age-specific needs and culture.


3. Takes responsibility for decisions made and actions taken.

4. Delivers patient care and service free from bias or discrimination.

5. Respects the patient’s right to privacy and confidentiality.

6. Adheres to the established practice standards of the profession.

Specific Criteria

None added.
Radiography Professional Performance Standards

Standard Six – Research and Innovation

The radiographer participates in the acquisition and dissemination of knowledge and the advancement of the profession.

Rationale
Scholarly activities such as research, scientific investigation, presentation and publication advance the profession.

General Stipulation
The individual must be educationally prepared and clinically competent as a prerequisite to professional practice. Federal and state laws, accreditation standards necessary to participate in government programs and lawful institutional policies and procedures supersede these standards.

General Criteria
The radiographer:
1. Reads and evaluates research relevant to the profession.
2. Participates in data collection.
3. Investigates innovative methods for application in practice.
4. Shares information through publication, presentation and collaboration.
5. Adopts new best practices.

Specific Criteria
None added.
Radiography Advisory Opinion Statements

Injecting Medication in Peripherally Inserted Central Catheter Lines or Ports with a Power Injector.

Medication and Contrast Media Injections by Radiologic Technologists.

Medication Injection through Existing Vascular Access.

Placement of Personal Radiation Monitoring Devices.