



Radiography

1. Introduction

ARRT requires candidates applying for certification and registration ~~are required~~ to meet the Professional Education Requirements specified in the *ARRT Rules and Regulations*. ARRT's *Radiography Didactic and Clinical Competency Requirements* are one component of the Professional Education Requirements.

ARRT periodically updates the requirements based upon a [practice analysis](#) which is a systematic process to delineate the job responsibilities typically required of radiographers. The result of this process is a [task inventory](#) which is used to develop the clinical competency requirements (see section 4 below) and the content specifications which serve as the foundation for the didactic competency requirements (see section 3 below) and the examination.

2. Documentation of Compliance

After the candidate submits the *Application for Certification and Registration*, the program director (and authorized faculty member if required) will verify that ARRT requirements were met using the Program Verification Form on the ARRT Educator website. The verification includes confirming the applicant has completed the educational program, including the ARRT Didactic and Clinical Competency Requirements and conferment of a degree meeting ARRT requirements. Candidates who complete their educational program during 2027 or 2028 may use either the 2022 Didactic and Clinical Competency Requirements or the 2027 requirements. Candidates who complete their educational program after February 29, 2029 must use the 2027 requirements.

3. Didactic Competency Requirements

The purpose of the didactic education requirements is to document that individuals had the opportunity to develop fundamental knowledge, integrate theory into practice, and hone affective and critical thinking skills required to demonstrate professional competency. Candidates must successfully complete coursework addressing the topics listed in the [ARRT Content Specifications](#) for the Radiography Examination. These topics would typically be covered in a nationally recognized curriculum published by organizations such as the ASRT. Educational programs accredited by a mechanism acceptable to ARRT generally offer education and experience beyond the minimum requirements specified in the content specifications and clinical competency documents.

4. Clinical Competency Requirements

The purpose of the clinical competency requirements is to document that individuals have demonstrated competence performing the clinical activities fundamental to a particular discipline. Competent performance of these fundamental activities, in conjunction with mastery of the cognitive knowledge and skills as documented by the examination requirement, provides the basis for the acquisition of the full range of procedures typically required in a variety of settings. Demonstration of clinical competence means that the candidate has performed the procedure independently, consistently, and effectively during the course of their formal education. The following pages identify the specific procedures for the clinical competency requirements. Candidates may wish to use these pages, or their equivalent, to record completion of the requirements. The pages do NOT need to be sent to the ARRT.



General Requirement: Remote scanning is not acceptable for completion of ARRT Clinical Requirements. The candidate must complete the examination or procedure at the facility where the patient and equipment are located. The candidate must be physically present during the examination or procedure.

4.1 General Performance Considerations

4.1.1 Patient Diversity

Demonstration of competence should include variations in patient characteristics such as age, gender, and medical condition.

4.1.2 Elements of Competence

Demonstration of clinical competence requires that the program director or the program director's designee has observed the candidate performing the procedure independently, consistently, and effectively during the course of the candidate's formal educational program.

Remote scanning is not acceptable for completion of ARRT Clinical Requirements. The candidate must complete the examination or procedure at the facility where the patient and equipment are located. The candidate must be physically present during the examination or procedure.

4.1.3 Simulated Performance

ARRT defines simulation of a clinical procedure routinely performed on a patient as the candidate completing all possible hands-on tasks of the procedure on a live human being using the same level of cognitive, psychomotor, and affective skills required for performing the procedure on a patient.

ARRT requires that competencies performed as a simulation must meet the same criteria as competencies demonstrated on patients. For example, the competency must be performed under the direct observation of the program director or program director's designee and be performed independently, consistently, and effectively.

Simulated performance must meet the following criteria:

- Simulation of imaging procedures requires the use of proper radiographic equipment without activating the x-ray beam.
- A total of ten imaging procedures may be simulated. Imaging procedures eligible for simulation are noted within the chart (see section 4.2.2).
- If applicable, the candidate must evaluate related images.
- Some simulations are acceptable for General Patient Care (see section 4.2.1). These do not count toward the ten imaging procedures that can be simulated.

4.2 Radiography Specific Requirements

As part of the education program, candidates must demonstrate competence in the clinical procedures identified below. These clinical procedures are listed in more detail in the following sections:

- ~~Eight~~^{Ten} mandatory general patient care procedures;
- ~~35~~³⁶ mandatory imaging procedures;
- ~~16~~¹⁵ elective imaging procedures selected from a list of ~~37~~³⁴ procedures;
- One of the ~~16~~¹⁵ elective imaging procedures must be selected from the head section; and



- Two of the ~~16~~¹⁵ elective imaging procedures must be selected from the fluoroscopy studies section.

One patient may be used to document more than one competency. However, each individual procedure may be used for only one competency (e.g., a portable femur can only be used for a portable extremity or a femur but not both).

4.2.1 General Patient Care Procedures

Candidates must be ~~CPR~~/BLS or ACLS certified and have demonstrated competence in the remaining ~~seven~~^{nine} patient care procedures listed below. The procedures should be performed on patients whenever possible, but simulation is acceptable if state regulations or institutional practice prohibits candidates from performing the procedures on patients.

The abbreviation “e.g.” is used here and in the remainder of this document to indicate examples but is not a complete list of all possibilities.

General Patient Care Procedures	Date Completed	Competence Verified By
CPR /BLS <u>or ACLS</u> Certified		
Vital Signs – Blood Pressure		
Vital Signs – Temperature		
Vital Signs – Pulse <u>Rate</u>		
Vital Signs – Respiration <u>Rate</u>		
Vital Signs – Pulse Oximetry		
Sterile and Medical Aseptic Technique		
Venipuncture*		
Assisted Patient Transfer (e.g., Slider Board, Mechanical Lift, Gait Belt)		
Care of Patient Medical Equipment (e.g., Oxygen Tank, IV Tubing)		

~~Venipuncture can be simulated by demonstrating aseptic technique on another person, but then inserting the needle into an artificial forearm or suitable device.~~

4.2.2 Imaging Procedures

Institutional protocol will determine the positions and projections used for each procedure. When performing imaging procedures, the candidate must independently demonstrate for each procedure the appropriate:

- patient identity verification;
- examination order verification;
- patient assessment;
- room preparation;
- patient management;
- equipment operation;
- technique selection;
- patient positioning;
- radiation safety;
- image processing; and
- image evaluation.



4.2.2 Imaging Procedures (continued)

Imaging Procedures	Mandatory or Elective		Eligible for Simulation	Date Completed	Competence Verified By
	Mandatory	Elective			
Chest and Thorax					
Chest Routine	✓				
Chest AP (Wheelchair or Stretcher)	✓				
Ribs	✓		✓		
Chest Lateral Decubitus		✓	✓		
Sternum		✓	✓		
Upper Airway (Soft-Tissue Neck)		✓	✓		
Sternoclavicular Joints		✓	✓		
Upper Extremity					
Thumb or Finger	✓		✓		
Hand	✓				
Wrist	✓				
Forearm	✓				
Elbow	✓				
Humerus	✓		✓		
Shoulder	✓				
Clavicle	✓		✓		
Scapula		✓	✓		
AC Joints		✓	✓		
<i>Trauma: Shoulder or Humerus (e.g., Scapular Y, Transthoracic or Axial)*</i>	✓				
<i>Trauma: Upper Extremity (Non-Shoulder)*</i>	✓				
Lower Extremity					
Toes		✓	✓		
Foot	✓				
Ankle	✓				
Knee	✓				
Tibia-Fibula	✓		✓		
Femur	✓		✓		
Patella		✓	✓		
Calcaneus		✓	✓		
<i>Trauma: Lower Extremity*</i>	✓				

* Trauma requires modifications in positioning, [tube angle](#), or [detector placement](#) due to injury with monitoring of the patient's condition.



4.2.2 Imaging Procedures (continued)

Imaging Procedures	Mandatory or Elective		Eligible for Simulation	Date Completed	Competence Verified By
	Mandatory	Elective			
Head – Candidates must select at least one elective procedure from this section.					
Skull		✓	✓		
Facial Bones		✓	✓		
Mandible		✓	✓		
Temporomandibular Joints		✓	✓		
Nasal Bones		✓	✓		
Orbits		✓	✓		
Paranasal Sinuses		✓	✓		
Spine and Pelvis					
Cervical Spine	✓				
Thoracic Spine	✓		✓		
Thoracolumbar spine		<u>✓</u>	<u>✓</u>		
Lumbar Spine	✓				
Cross-Table (Horizontal Beam) Lateral Spine (Patient Recumbent)	✗	<u>✓</u>	✓		
Pelvis	✓				
Hip	✓				
Cross-Table (Horizontal Beam) Lateral Hip (Patient Recumbent)	✓		✓		
Sacrum and/or Coccyx		✓	✓		
Scoliosis Series		✓	✓		
Sacroiliac Joints		✓	✓		
Abdomen					
Abdomen Supine	✓				
Abdomen Upright	✓		✓		
Abdomen Decubitus		✓	✓		
Intravenous Urography		✓			
Nasogastric/enteric and orogastric/enteric tube (e.g., Dobhoff)		<u>✓</u>			



4.2.2 Imaging Procedures (continued)

Imaging Procedures	Mandatory or Elective		Eligible for Simulation	Date Completed	Competence Verified By
	Mandatory	Elective			
Fluoroscopy Studies – Candidates must select two procedures from this section and perform per site protocol.					
Upper GI Series, Single or Double Contrast		✓			
Contrast Enema, Single or Double Contrast		✓			
Small Bowel Series		✓			
Esophagus (<i>NOT</i> Swallowing Dysfunction Study)		✓			
Cystography/Cystourethrography		✓			
ERCP		✓			
Myelography/ lumbar puncture/epidural injections		✓			
Arthrography/ joint injection/aspiration		✓			
Hysterosalpingography		✓			
Mobile C-Arm Studies					
C-Arm Procedure (Requiring Manipulation to Obtain More Than One Projection)	✓		✗		
Surgical C-Arm Procedure (Requiring Manipulation Around a Sterile Field)	✓		✗		
Mobile Radiographic Studies					
Chest	✓				
Abdomen	✓				
Upper or Lower Extremity	✓				
Pediatric Patient (Age 6 or Younger)					
Chest Routine	✓		✗		
Upper or Lower Extremity		✓	✗		
Abdomen		✓	✗		
Mobile Study		✓	✗		
Geriatric Patient (At Least 65 Years Old and Physically or Cognitively Impaired as a Result of Aging)					
Chest Routine	✓				
Upper or Lower Extremity	✓				
Hip or Spine		✓			



4.2.2 Imaging Procedures (continued)

Imaging Procedures	Mandatory or Elective		Eligible for Simulation	Date Completed	Competence Verified By
	Mandatory	Elective			
Subtotal					
Total Mandatory exams required	35 <u>36</u>				
Total Elective exams required		15 <u>16</u>			
Total number of simulations allowed			10		

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