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# COMPUTED TOMOGRAPHY CLINICAL EXPERIENCE REQUIREMENTS



***Eligibility Requirements Effective  
for Examinations Beginning July 1, 2011\****

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The purpose of the clinical experience requirements is to verify that candidates have completed a subset of the clinical procedures within a discipline. Successful performance of these fundamental procedures, in combination with mastery of the cognitive knowledge and skills covered by the certification examination, provides the basis for the acquisition of the full range of clinical skills required in a variety of settings.

This document identifies the clinical experience required for certification. ARRT encourages individuals to obtain education and experience beyond these minimum requirements.

## Instructions for Eligibility

**1. Perform the Procedures:** Candidates are required to perform clinical procedures according to the Specific Procedural Requirements on the following pages. All procedures must be performed within the 24 month period immediately preceding the date of the candidate's signature on the application for certification. Repetitions may be completed in less than 24 months.

**2. Document Performance:** Candidates must use the following *Computed Tomography Clinical Experience Documentation Form* or a reasonable facsimile to record the performance of the procedures. Documentation includes: name of procedure, date performed, time of day completed, facility where performed, and the initials of the person verifying performance. The "Verifier's Initials" column on the form must be initialed by a Registered Technologist or a licensed physician and must match the *Verification Identification Page* at the end of this document. The name and address of the person corresponding to each set of initials must also be provided on the *Verification Identification Page*. Failure to meet the minimum clinical experience requirements prior to the date of the application signature will result in the application becoming "ineligible." All documented procedures prior to that application date will not be accepted for future clinical experience requirements.

**3. Apply for Certification:** After the clinical experience requirements have been completed, candidates are eligible to complete the *verification section* of the application for certification. ARRT will accept the completed application up to six months after the date of signature. Mail only the application for certification to the ARRT; do not send the *Clinical Experience Documentation Form* to ARRT with the application. Submitting false documentation to ARRT as part of the application process is a violation of the ARRT Standards of Ethics and may result in sanctions up to and including revocation of ARRT certification in all disciplines and ineligibility for any additional ARRT certifications.

**4. Maintain Your Records:** Candidates must keep the *Clinical Experience Documentation Form* for at least 24 months after the date that the application is submitted. The ARRT conducts audits of some applications for certification. Candidates who are audited will be required to send the *Clinical Experience Documentation Form* to ARRT. Additional documentation may be required from individuals who are audited.

\*Candidates who submit their applications up through June 30, 2013 may use either the previous requirements (effective July 2008) or the current requirements (effective 2011). Candidates who apply after June 30<sup>th</sup>, 2013 may no longer use the previous clinical experience requirements.

## ***Specific Procedural Requirements***

The Clinical Experience Requirements for CT consist of 59 procedures in 7 different categories:

- A. Head and Neck
- B. Spine and Musculoskeletal
- C. Chest
- D. Abdomen and Pelvis
- E. Special Procedures
- F. Image Display and Post Processing
- G. Quality Assurance

Candidates must document the performance of complete, diagnostic quality procedures according to the following rules:

- Choose a minimum of 25 different procedures out of the 59 procedures on the following pages.
- Complete and document a minimum of 3 and a maximum of 5 repetitions of each chosen procedure; less than three will not be counted toward the total.
- No more than one procedure may be documented on one patient. For example, if an order requests chest, abdomen, and pelvis scans for one patient, only one of these may be documented for clinical experience documentation.
- Computed Tomography procedures performed in conjunction with a PET or SPECT procedure or Radiation Therapy planning procedure must be of diagnostic quality.
- A minimum total of 125 repetitions across all procedures is required.

### ***Examples***

1) A candidate who works in a specialized setting wanted to complete the minimum number of procedures. This person chose 25 procedures from any of the 7 categories. To complete 125 repetitions, each of the 25 procedures was performed 5 times each.

2) Another candidate works in a facility that does most types of CT scans, so completing a wide variety of procedures was quite feasible. This candidate completed a total of 30 procedures from all 7 categories. Although most of these procedures were performed 3 times (the minimum), several of them were performed 4 or 5 times each until the candidate reached at least 125 procedures.

## ***General Guidelines***

To qualify as a complete, diagnostic quality CT imaging procedure the candidate must demonstrate appropriate:

- evaluation of requisition and/or medical record
- preparation of examination room
- identification of patient
- patient assessment and education concerning the procedure
- documentation of patient history including allergies
- patient positioning
- protocol selection
- parameter selection
- image display, filming, and archiving
- documentation of procedure, treatment and patient data in appropriate record
- patient discharge with post-procedure instructions
- standard precautions
- radiation safety
- preparation and/or administration of contrast media
- initiate scan

and evaluate the resulting images for:

- image quality (e.g., motion, artifacts, noise)
- optimal demonstration of anatomic region (e.g., delayed imaging, reconstruction spacing, algorithm, slice thickness)
- exam completeness

# Computed Tomography

## Clinical Experience Requirement Procedures

### A. Head and Neck

1. head without and/or with contrast
2. sinuses
3. facials (orbits, mandible)
4. temporal bones / IACs
5. trauma head
6. vascular head (CTA)
7. soft tissue neck
8. vascular neck (CTA)

### B. Spine and Musculoskeletal

1. lumbar
2. cervical
3. thoracic
4. spinal trauma
5. upper extremity
6. lower extremity
7. pelvic girdle; hips
8. musculoskeletal trauma
9. vascular extremity (CTA)

### C. Chest

1. chest without and/or with contrast
2. HRCT
3. vascular chest (e.g., PE, CTA, Aorta)
4. chest trauma
5. lung nodule study
6. heart (e.g., calcium scoring, coronary angiography)

### D. Abdomen and Pelvis

1. abdomen without and/or with contrast
2. liver (multi-phase)
3. kidneys (multi-phase)
4. pancreas (multi-phase)
5. adrenals
6. enterography study
7. appendicitis study

8. renal stone protocol (without IV contrast)
9. abdominal trauma
10. vascular abdomen (CTA)
11. CT intravenous urogram/IVP
12. pelvis without and/or with contrast
13. bladder
14. pelvic trauma
15. vascular pelvis (CTA)
16. colorectal studies (rectal contrast)

### E. Special Procedures

1. biopsies
2. drainage
3. aspirations
4. CT arthrography
5. diskography
6. myelography
7. colonography or virtual colonography
8. brain perfusion
9. radiation therapy planning
10. transplant studies

### F. Image Display and Post Processing

1. geometric or distance measurements
2. region of interest measurement (ROI)
3. retrospective reconstruction
4. multiplanar reconstruction (MPR)
5. 3D rendering (MIP, SSD, VR)

### G. Quality Assurance

1. calibration checks
2. CT number and standard deviation (water phantom)
3. linearity
4. spatial resolution
5. contrast resolution

## Clinical Experience Documentation Form Computed Tomography

CANDIDATE NAME

ARRT ID #

All procedures must be performed on patients (not phantoms or simulated patients). Procedures must be verified and initialed by a Registered Technologist or a licensed physician and must match the *Verification Identification Page* at the end of this document. The name and address of the person corresponding to each set of initials must also be provided on the *Verification Identification Page*. List procedures in the order they are listed on the preceding page, with like procedures grouped together. See the example below. If all of your clinicals are completed at the same facility, documenting the facility name once is sufficient. Only those procedures completed within the 24 months preceding the application signature will be accepted.

Category and Procedure Performed	Date mm/dd/yy	Time of Day	Facility Name	Verifier's Initials (handwritten)
HEAD: head without contrast	01/01/11	10:15 a.m.	General Hospital	
head without and with	01/01/11	3:00 p.m.	↓	
head without contrast	01/02/11	8:00 a.m.	↓	

This form may be duplicated

Candidate Name

ARRT #

Category and Procedure Performed	Date mm/dd/yy	Time of Day	Facility Name	Verifier's Initials <i>(handwritten)</i>

This form may be duplicated

**VERIFICATION IDENTIFICATION PAGE**

The previous pages of the *Computed Tomography Clinical Experience Documentation Form* require only that the initials of the person verifying performance of a procedure be listed. On this page, the verifiers must provide their full name and mailing address to match their initials on the previous pages. These individuals may be contacted as part of the audit process. Registered Technologists should list their home mailing address that is on file with ARRT. Other verifiers may list the facility address.

Verifier's Initials (handwritten)	Verifier's Initials (handwritten)
Verifying technologist ARRT ID # and credentials (if applicable) Others, please note credentials this space	Verifying technologist ARRT ID # and credentials (if applicable) Others, please note credentials this space
Printed Name	Printed Name
Mailing Address	Mailing Address
City/State/Zip	City/State/Zip
Verifier's Initials (handwritten)	Verifier's Initials (handwritten)
Verifying technologist ARRT ID # and credentials (if applicable) Others, please note credentials this space	Verifying technologist ARRT ID # and credentials (if applicable) Others, please note credentials this space
Printed Name	Printed Name
Mailing Address	Mailing Address
City/State/Zip	City/State/Zip
Verifier's Initials (handwritten)	Verifier's Initials (handwritten)
Verifying technologist ARRT ID # and credentials (if applicable) Others, please note credentials this space	Verifying technologist ARRT ID # and credentials (if applicable) Others, please note credentials this space
Printed Name	Printed Name
Mailing Address	Mailing Address
City/State/Zip	City/State/Zip
Verifier's Initials (handwritten)	Verifier's Initials (handwritten)
Verifying technologist ARRT ID # and credentials (if applicable) Others, please note credentials this space	Verifying technologist ARRT ID # and credentials (if applicable) Others, please note credentials this space
Printed Name	Printed Name
Mailing Address	Mailing Address
City/State/Zip	City/State/Zip