



Mammography

Candidates applying for certification and registration are required to meet the Professional Requirements specified in the *ARRT Rules and Regulations*. ARRT's *Mammography Clinical Experience Requirements* describe the specific eligibility requirements that must be documented as part of the application for certification and registration process.

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

The requirements are periodically updated based upon a practice analysis which is a systematic process to delineate the job responsibilities typically required of mammographers. The result of this process is a task inventory. An advisory committee then determines the number of clinical procedures required to demonstrate adequate candidate experience in performing the tasks on the inventory.

Candidates for Mammography certification and registration must document performance of a minimum of ~~75-113 independent (unsupervised)~~ repetitions of mammography procedures according to the criteria noted below **in the mandatory and elective procedures sections**. Procedures are documented, verified, and submitted when complete via an online ~~tool~~ **worksheet** accessible through your account on arrt.org. ARRT encourages individuals to obtain education and experience beyond these minimum requirements.

The candidate can document up to 16 mammographic procedures (mammograms, QC procedures, mammographic image evaluation, elective procedures) per day in the online worksheet.

Completion of each procedure must be verified by a certified and registered supervising mammographer or an MQSA qualified supervising mammographer, or an MQSA qualified interpreting physician. The verification process is described within the online ~~tool~~ **worksheet**.

Specific Procedural Requirements

Mandatory Procedures

A. Initial MQSA (Mammography Quality Standards Act)

The candidate must meet initial **MQSA requirements** for the radiologic technologist including, among other provisions, completion of 25 supervised mammograms. **Documentation of completion is required by the FDA and must be verified via the online ~~tool~~ worksheet.** ARRT requests confirmation that the candidate is MQSA compliant but does not require online entry of these 25 mammograms.

B. Mammographic Imaging

The candidate must **independently (unsupervised)** perform mammographic imaging (screening and/or diagnostic) on 75 patients. ~~addressing the following tasks~~. These 75 mammograms are in addition to the 25 mammograms that are required by the initial MQSA requirements. ~~All mammograms must be performed on patients (not phantoms or simulations).~~ **The mammographic imaging requirement cannot be performed until all MQSA requirements have been completed and documented in the online worksheet.**

All mammograms must be performed on patients (not phantoms or simulations). **-The candidate must demonstrate the following tasks:**



Patient Preparation/Education Tasks

- Provide for patient comfort and cooperation by familiarizing patient with the equipment and process, stressing the need for compression, and ~~by~~ providing general psychological support.
- Solicit and record patient clinical, **surgical**, and family history relevant to the performance and interpretation of the mammographic procedure.
- Document **areas of interest including** location of lumps, scars, moles, etc., by means of radiopaque markers on the breast and/or diagram on clinical information sheet, per department protocol.
- Respond to patient questions regarding **breast self-examination, clinical breast examination, BSE, CBE,** patient dose, possible need for additional views, **and process for receiving results.**
- **Respond to patient questions regarding American Cancer Society (ACS) and American College of Radiology (ACR) guidelines for screening mammography, and other breast imaging procedures.**

Mammographic Imaging Tasks

- Select equipment appropriate to the patient and the views to be performed (e.g., compression paddles, magnification stand).
- Adjust exposure factors, as needed (e.g., implanted devices, augmentation, post-radiation changes).
- Position patient and equipment to acquire views specified per department protocol. ~~or requisition.~~
- Evaluate the images to ~~assure~~**ensure** that they contain proper identification and labeling, and are of diagnostic quality.

C. Quality Control (QC)

The candidate must participate¹ in the performance, evaluation, and recording of all the QC tests as indicated in the 2018 ACR Digital Mammography Quality Control Manual or according to equipment manufacturer’s recommendations.

~~Manufacturer’s QC recommendations for date intervals should be followed.~~ **If the manufacturer’s QC recommendations do not require a test listed below, follow the 2018 ACR Digital Mammography Quality Control Manual information to perform the test.**

QC Documentation (**limited to one submission per day per test**)

- Phantom Image Quality (10)
- Compression Thickness Indicator (5)
- Visual Checklist (5)
- Acquisition Workstation Monitor QC (5)
- Radiologist’s Workstation Monitor QC * (2)
- Compression Force (2)
- Facility QC Review (1)
- Repeat Analysis (1)
- Review of Medical Physicist’s Annual Survey Report (1)
 - Including Signal-to-Noise Ratio (SNR), Contrast-to-Noise Ratio (CNR), Modulation Transfer Function (MTF), Manufacturer Detector Calibration, Artifact Evaluation, Flat Field, as applicable.

***If the radiologist’s workstation monitor is remote, the candidate is responsible for reviewing the documentation of the monitor QC, according to facility protocol.**

¹ “Participate” means being actively involved in the performance of the procedure even though the candidate may not have primary responsibility for performing the procedure.



D. Mammographic Image Evaluation (1)

Candidate must consult with an MQSA qualified interpreting physician to review at least 10 mammographic cases for breast anatomy, pathology, and image quality, and establish corrective action per EQUIP (Enhancing Quality using the Inspection Program) regulations.

It is highly recommended that the candidate makes their best effort to participate in this evaluation in person. However, if the interpreting physician is remote, the candidate may review the same images on a local monitor through a HIPPA compliant virtual meeting with the physician.

Elective Procedures

Interventional/Special Procedures

The candidate must observe, assist with, or participate¹ in at least ~~four~~ five of the procedures listed below. For any given single patient per day, the candidate may count up to two ~~only one~~ procedures. All five elective procedures may be documented in one day.

- Needle Localization (~~e.g., wire, radioactive seed, magnetic seed, RFID~~)
- Localization Imaging (post-placement)
- Surgical Specimen Imaging
- Breast MRI
- Breast Ultrasound: (e.g., diagnostic ultrasound, biopsy, ~~FNA or cyst aspiration~~)
- Stereotactic Biopsy with Clip Placement
- Stereotactic Specimen Imaging
- Tissue Marker Clip Placement Imaging
- Screening Breast Implant Imaging
- Diagnostic Mammogram
- Recall from a Screening Mammogram

¹“Participate” means being actively involved in the performance of the procedure even though the candidate may not have primary responsibility for performing the procedure.



EXAMPLES:

1. A patient is having a stereotactic biopsy for calcifications. The following procedures are performed on the patient:

- 1 stereotactic biopsy with clip placement
- 1 stereotactic specimen imaging
- 1 tissue marker clip placement imaging

The candidate may document two of the three above procedures for this patient in the online worksheet.

2. A candidate has performed 14 screening mammograms and 4 diagnostic mammograms. The candidate can document up to 16 procedures in the online worksheet for that day.

3. That candidate completes the following in one day including:

- 1 phantom image
- 1 radiologist workstation monitor QC
- 8 screening mammograms
- 1 needle localization with 1 localization imaging (postplacement) on the same patient
- 1 observation of breast MRI

The candidate may document 13 procedures in the online worksheet.