

Proposed Mammography School Curriculum

In 1992, the Radiologic Technology Act was amended when the Governor signed into law the California Mammography Quality Assurance Act.¹ This Act makes it unlawful for a technologist to perform mammography in this state unless they have been issued a certificate in mammographic radiologic technology by this Department.² Certification in mammographic radiologic technology was implemented in 1993, when section 30455.1 was adopted into title 17 of the California Code of Regulations. This section established that a California Certified Radiologic Technologist applying for a Mammography Certificate issued by this Department is required to submit evidence of having been awarded a graduation diploma from a mammographic radiologic technology school.³ The Act also authorized the Department to consider the accreditation a California Certified Radiologic Technologist has received when deciding to issue a mammographic radiologic technology certificate.⁴ The only U.S. organization offering accreditation in mammographic technology, the American Registry of Radiologic Technologists (ARRT),⁵ requires candidates to have performed mammographic examinations during their training and education prior to applying for accreditation.

In California, technologists who have not been issued a mammography certificate by this Department are prohibited from performing mammography for training purposes, unless they are students in a Department approved school.⁶ Although there are approved Radiologic Technology Schools in California that provide training in mammography, this training is intended for students who are not yet certified in diagnostic radiologic technology. There are no schools in California that provide mammography training for persons who are already certified in diagnostic radiologic technology. Because of this situation, a person who is a California Certified Diagnostic Radiologic Technologist can not receive the training or obtain the experience needed to qualify for obtaining a Department certificate in mammography.

This proposed regulation would provide a means that will allow California Radiologic Technologists to acquire the education, training, and experience needed to become eligible for certification in mammography. Section 30421.5 would specify the course of instruction that an Approved Mammographic Radiologic Technology School will be required to provide. The proposed course of instruction is based on the education, training, and experience required in 21 CFR 200.12(a)(2)(ii) for technologist performing mammography in MQSA certified facilities. The proposed course is also based on the clinical requirements for RTs to become eligible for ARRT certification in mammography.

In addition, a requirement that the education and training include the use of **both** film-screen and digital imaging machines will be needed if the graduates are to be eligible for work in any MQSA certified facility regardless of the modality used.

¹ California Statutes of 1992, Chapter 870, Section 2 (AB 2841)

² California Health & Safety Code 106965(b)

³ Subsection (a)(3) of 30455.1 in title 17 of the California Code of Regulations

⁴ California Health & Safety Code 114870(b)

⁵ arrt.org

⁶ California Health & Safety Code 106975(b)

Proposed Mammography School Curriculum

§ 30421.5. Approved Mammographic Radiologic Technology Schools.

(a) An approved Mammographic Radiologic Technology school shall provide each student the following course of instruction:

(1) Forty hours of education and training as follows:

(A) Education in breast anatomy and physiology, positioning and compression, quality assurance/quality control techniques, and imaging of patients with breast implants;

(B) Training in the performance of 25 mammographic examinations, as defined in section 30315.10(b)(23), under direct supervision, as defined in section 30315.10(b)(11)(B), of an individual meeting the requirements of section 30315.51. Actual time spent in performance of the required examinations may be counted towards the required 40 hours up to a maximum of 12.5 hours. Performance of the examinations may only occur in a facility possessing a current and valid Facility Accreditation Certificate issued pursuant to section 30315.22 or, if the facility is not within the Department's jurisdiction, a facility possessing a current and valid certificate issued by the U.S. Food and Drug Administration (FDA) pursuant to title 21, Code of Federal Regulations, section 900.11(b)(1); and

(C) At least 8 hours of training in film-screen mammography and 8 hours in digital imaging mammography;

(2) Experience through the performance of an additional 75 mammographic examinations, as defined in section 30315.10(b)(23). The examinations performed for compliance with this provision may be performed only after completion of those examinations performed for compliance with subsection (a)(1)(B). Performance of the examinations may only occur in a facility possessing a current and valid Facility Accreditation Certificate issued pursuant to section 30315.22 or, if the facility is not within the Department's jurisdiction, a facility possessing a current and valid certificate issued by FDA pursuant to title 21, Code of Federal Regulations, section 900.11(b)(1);

(3) Active involvement in or observation of at least four of the following procedures:

(A) Needle localization;

(B) Breast MRI

(C) Breast ultrasound: imaging, biopsy, or fine needle aspiration;

(D) Stereotactic procedure;

(E) Breast-implant imaging;

(F) Ductography;

(G) Diagnostic work-up such as magnification, exaggerated craniocaudal lateral views, lateromedial views, or implant imaging; and

Proposed Mammography School Curriculum

(4) Active involvement in the performance, evaluation, and recording of all the Quality Control tests shown in either Table 1, Film-Screen Systems, or in Table 2, Digital Systems. (Table 1 and Table 2 are mutually exclusive.)

Table 1, Film-Screen Systems		Table 2, Digital Systems	
Film-Screen Systems	Number of Repetitions	Digital Systems	Number of Repetitions
Darkroom cleanliness	25	Monitor cleaning	25
Processor QC	25	Laser Imager QC test including SMPTE ⁷	25
Screen cleanliness	4	Detector Calibration/Flat field	4
Phantom images	4	Phantom images	4
Darkroom fog	2	Modulation Transfer Function (MTF), Signal to Noise Measurement, Contrast to Noise Measurement	4
Screen-film contact	8 cassettes		
Compression	2	Compression	2
Repeat analysis	2	Repeat analysis	2
View-boxes and viewing conditions	4	Viewboxes and viewing conditions	4
Analysis of fixer retention in film	2	Monitor calibration QC and SMPTE pattern	2
Visual checklist	2	Visual checklist	2
Review medical physicist's annual survey report	1	Review medical physicist's annual survey report	1

(5) Review the mammograms, as defined in section 30315.10(b)(22), produced during at least 20 mammographic examinations, as defined in section 30315.10(b)(23), with an interpreting physician, as defined in section 30315.10(b)(17), to evaluate radiographic technique, breast anatomy, and pathology.

(b) Each approved Mammographic Radiologic Technology school shall require each graduate to have successfully completed:

(1) The standards established in subsection (a)(1) within 24 months prior to the date of graduation; and

(2) The standards established in subsections (a)(2) through (a)(5) within 12 months prior to the date of graduation.

⁷ Society of Motion Picture and Television Engineers