



STUDY INTO THE NEED TO REGULATE  
**DIAGNOSTIC MEDICAL SONOGRAPHERS**  
IN THE COMMONWEALTH OF VIRGINIA

2020

VIRGINIA BOARD OF HEALTH PROFESSIONS  
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## Table of Contents

Authority .....	5
The Criteria and Their Application.....	6
Criterion One: Risk for Harm to the Consumer.....	6
Criterion Two: Specialized Skills and Training.....	6
Criterion Three: Autonomous Practice .....	6
Criterion Four: Scope of Practice.....	6
Criterion Five: Economic Impact.....	6
Criterion Six: Alternatives to Regulation.....	6
Criterion Seven: Least Restrictive Regulation .....	6
Application of the Criteria .....	7
Executive Summary .....	8
Major Findings of the Study .....	8
Recommendation .....	8
Overview .....	9
History of the Profession .....	9
Diagnostic Medical Sonography Defined.....	10
Associations/Credentialing Organizations .....	11
American Institute of Ultrasound Medicine (AIUM) (1952) .....	11
American Registry for Diagnostic Medical Sonography (ARDMS) (1975) .....	11
American Registry of Radiologic Technologists (ARRT) (1922) .....	11
American Society of Echocardiography (ASE) (1975) .....	11
Commission on Accreditation of Allied Health Education Programs (CAAHEP) (1994) .....	12
Cardiovascular Credentialing International (CCI) (1968) .....	12
Joint Commission on Allied Health Personnel in Ophthalmology (JCAHPO) (1991) .....	12
Society of Diagnostic Medical Sonography (SDMS) (1970).....	12
Society for Vascular Ultrasound (SVU) (1977) .....	12
The Virginia Society of Ultrasound (VSU) (2008) .....	12
Discussion of the Criteria.....	13
Criterion One: Risk of Harm.....	13
Violation & Sanctions .....	13

Criterion Two: Specialized Skills and Training.....	14
Education .....	15
Northern Virginia Community College (NVCC) (Appendix 1) .....	15
Piedmont Virginia Community College (PVCC) (Appendix 2).....	15
Southside Regional Medical Center Professional Schools (Appendix 3) .....	15
Tidewater Community College (TCC) (Appendix 4) .....	15
Certificate Program .....	17
Associate’s Degree .....	17
Bachelor’s Degree .....	17
Master’s Degree .....	18
Certification .....	18
The American Registry of Radiologic Technologists (ARRT).....	18
ARRT Certification.....	18
ARRT Exam.....	18
ARRT Credentials .....	19
ARRT-Maintaining Certification & Registration .....	19
ARRT-Continuing Qualification Requirements Every 10 Years.....	19
The American Registry for Diagnostic Medical Sonographers (ARDMS).....	19
ARDMS-Certification.....	19
ARDMS-SPI Exam Content Outline .....	20
ARDMS-Credentials .....	20
ARDMS-Exceptions to Certification .....	21
ARDMS-Continuing Medical Education (CMS).....	22
Cardiovascular Credentialing International (CCI).....	22
CCI-Exam & Credentials.....	22
CCI-Requirements.....	22
Licensure .....	23
Criterion Three: Autonomous Practice.....	23
Criterion Four: Scope of Practice and Overlap .....	23
Criterion Five: Economic Impact .....	25
Wages & Salaries .....	25

Workforce Adequacy.....	25
Reimbursement.....	26
Criteria Six and Seven: Alternatives to Regulation/ Least Restrictive Regulation .....	26
Diagnostic Medical Sonography Licensure In Other States .....	26
New Hampshire.....	26
New Mexico.....	26
North Dakota .....	26
Oregon.....	27
Virginia .....	27
Impact of Licensure on the Department Of Health Professions .....	27
Summary of Public Comment.....	28
Appendix .....	29
Appendix 1: NORTHERN VIRGINIA COMMUNITY COLLEGE (NVCC) .....	30
Appendix 2: PIEDMONT VIRGINIA COMMUNITY COLLEGE (PVCC) .....	31
Appendix 3: SOUTHSIDE REGIONAL MEDICAL CENTER PROFESSIONAL SCHOOLS .....	34
Appendix 4: TIDEWATER COMMUNITY COLLEGE (TCC) .....	35
Appendix 5: DIAGNOSTIC MEDICAL SONOGRAPHER SCOPE OF PRACTICE.....	38
Appendix 6: NEW HAMPSHIRE .....	50
Appendix 7: NEW MEXICO.....	59
Appendix 8: NORTH DAKOTA .....	76
Appendix 9: OREGON .....	109
Sources .....	116

## AUTHORITY

At the June 25, 2020 Board of Health Professions Full Board meeting, the Board considered a request to review the need to regulate diagnostic medical sonographers in the Commonwealth of Virginia. At this meeting, the Regulatory Research Committee (RRC) received approval to move forward with the study. The same day, the RRC adopted the work plan and requested staff to begin work on the study. The study was conducted pursuant to the following authority:

Code of Virginia Section 54.1-2510 assigns certain powers and duties to the Board of Health Professions. Among them are the power and duty:

7. To advise the Governor, the General Assembly and the Director on matters relating to the regulation or deregulation of health care professions and occupations; and

12. To examine scope of practice conflicts involving regulated and unregulated professions and advise the health regulatory boards and the General Assembly of the nature and degree of such conflicts.

Pursuant to these powers and duties, the Board of Health Professions and its Regulatory Research Committee conducted a sunrise review evaluating the need to regulate diagnostic medical sonographers in the Commonwealth of Virginia.

## THE CRITERIA AND THEIR APPLICATION

The Board of Health Professions has adopted the following criteria and guidelines to evaluate the need to regulate health professions. Additional background information on the Criteria are available in the Board of Health Professions Guidance Document 75-2 *Appropriate Criteria in Determining the Need for Regulation of Any Health Care Occupations or Professions*, revised February 2019 available on the Board's website: [Policies and Procedures for the Evaluation of the Need to Regulate Health Occupations and Professions](#)

### CRITERION ONE: RISK FOR HARM TO THE CONSUMER

The unregulated practice of the health occupation will harm or endanger the public health, safety or welfare. The harm is recognizable and not remote or dependent on tenuous argument. The harm results from: (a) practices inherent in the occupation, (b) characteristics of the clients served, (c) the setting or supervisory arrangements for the delivery of health services, or (d) from any combination of these factors.

### CRITERION TWO: SPECIALIZED SKILLS AND TRAINING

The practice of the health occupation requires specialized education and training, and the public needs to have benefits by assurance of initial and continuing occupational competence.

### CRITERION THREE: AUTONOMOUS PRACTICE

The functions and responsibilities of the practitioner require independent judgment and the members of the occupational group practice autonomously.

### CRITERION FOUR: SCOPE OF PRACTICE

The scope of practice is distinguishable from other licensed, certified and registered occupations, in spite of possible overlapping of professional duties, methods of examination, instrumentation, or therapeutic modalities.

### CRITERION FIVE: ECONOMIC IMPACT

The economic costs to the public of regulating the occupational group are justified. These costs result from restriction of the supply of practitioner, and the cost of operation of regulatory boards and agencies.

### CRITERION SIX: ALTERNATIVES TO REGULATION

There are no alternatives to State regulation of the occupation which adequately protect the public. Inspections and injunctions, disclosure requirements, and the strengthening of consumer protection laws and regulations are examples of methods of addressing the risk for public harm that do not require regulation of the occupation or profession.

### CRITERION SEVEN: LEAST RESTRICTIVE REGULATION

When it is determined that the State regulation of the occupation or profession is necessary, the least restrictive level of occupational regulation consistent with public protection will be recommended to the Governor, the General Assembly and the Director of the Department of Health Professions.

## APPLICATION OF THE CRITERIA

In the process of evaluating the need for regulation, the Board's seven criteria are applied differently, depending upon the level of regulation that appears most appropriate for the occupational group. The following outline delineates the characteristics of licensure, certification, and registration (the three most commonly used methods of regulation) and specifies the criteria applicable to each level.

- Licensure - Licensure confers a monopoly upon a specific profession whose practice is well defined. It is the most restrictive level of occupational regulation. It generally involves the delineation in statute of a scope of practice which is reserved to a select group based upon their possession of unique, identifiable, minimal competencies for safe practice. In this sense, state licensure typically endows a particular occupation or profession with a monopoly in a specified scope of practice.
  - Risk: High potential, attributable to the nature of the practice.
  - Skill & Training: Highly specialized accredited post-secondary education required; clinical proficiency is certified by an accredited body.
  - Autonomy: Practices independently with a high degree of autonomy; little or no direct supervision.
  - Scope of Practice: Definable in enforceable legal terms.
  - Cost: High
  - Application of the Criteria: When applying for licensure, the profession must demonstrate that Criteria 1 - 6 are met.
  
- Statutory Certification - Certification by the state is also known as "title protection." No scope of practice is reserved to a particular group, but only those individuals who meet certification standards (defined in terms of education and minimum competencies which can be measured) may title or call themselves by the protected title.
  - Risk: Moderate potential, attributable to the nature of the practice, client vulnerability, or practice setting and level of supervision.
  - Skill & Training: Specialized; can be differentiated from ordinary work. Candidate must complete education or experience requirements that are certified by a recognized accrediting body.
  - Autonomy: Variable; some independent decision-making; majority of practice actions directed or supervised by others.
  - Scope of Practice: Definable, but not stipulated in law.
  - Cost: Variable, depending upon level of restriction of supply of practitioners.
  - Application of Criteria: When applying for statutory certification, a group must satisfy Criterion 1, 2, 4, 5, & 6.
  
- Registration - Registration requires only that an individual file his name, location, and possibly background information with the State. No entry standard is typically established for a registration program.
  - Risk: Low potential, but consumers need to know that redress is possible.
  - Skill & Training: Variable, but can be differentiated for ordinary work and labor.
  - Autonomy: Variable.
  - Application of Criteria: When applying for registration, Criteria 1, 4, 5, & 6 must be met.

## EXECUTIVE SUMMARY

### MAJOR FINDINGS OF THE STUDY

1. The diagnostic medical sonographer provides patient care services using ultrasound and related diagnostic procedures.
2. Diagnostic medical sonography educational programs include classroom instruction, lab work, and clinical exposure. Competency is demonstrated through certification by a nationally recognized sonography credentialing organization.
3. There are approximately 1,500 diagnostic medical sonographers credentialed in Virginia.
4. Some medical sonographers work in a specialized area of the field: abdominal sonography, breast sonography, cardiac sonography, obstetrics/gynecology, pediatric sonography, phlebology sonography, vascular technology/sonography, and other emerging clinical areas.
5. Four states currently license diagnostic medical sonographers.
6. Resultant harm to a patient because of improper sonographic technique has not been reported.
7. Diagnostic medical sonographers function as a delegated agent of the licensed healthcare provider; they do not practice independently.

### RECOMMENDATION

At its August 20, 2020 meeting, the Regulatory Research Committee found no evidence of harm attributable to the practice of diagnostic medical sonography by credentialed individuals and noted that they do not practice independently. Hence, the Committee voted unanimously that state regulation was not justified. The Committee did have concerns about the emerging use of 3D sonography for “Keepsakes” being offered by some photographers and recommended referral of the issue to the Full Board for further discussion.

The Regulatory Research Committee's recommendation to not regulate or license diagnostic medical sonographers was provided to the full Board of Health Professions for review and consideration at the August 20, 2020 meeting. At that meeting, after discussion, the Board voted unanimously to accept the Committee's findings. The Board tabled the discussion of the non-medical fetal imaging until the November 10, 2020 meeting.

The Board of Health Professions does not recommend additional state regulation of medical sonographers.



## OVERVIEW

To understand the profession of diagnostic medical sonography, one must first know that the terms sonogram and ultrasound are often used interchangeably. There is a difference between the two, as an ultrasound is a tool used to take a picture, and a sonogram is the picture that is generated by the ultrasound. Sonography is the utilization of an ultrasound tool for diagnostic purposes and a medical sonographer, often referred to as an ultrasound tech, is the person trained to use ultrasound diagnostic imaging technology (sonography). Simply stated, ultrasound is the process, with a sonogram being the result. (Ultrasound Schools Info-Ultrasound Technician, 2020)

## HISTORY OF THE PROFESSION

In 1794, physiologist Lazzaro Spallanzani, was the first person to study echolocation by observing bats. This in turn led to the establishment of the basis of ultrasound physics. In 1877 brothers, Pierre and Jacques Currie discover piezoelectricity. Ultrasound transducers, also referred to as probes, emit and receive sound waves by way of the piezoelectric effect.

Inspired by the sinking of the Titanic, physicist Paul Langevin was commissioned in 1915 to invent a device that detected objects at the bottom of the sea. Langevin invented a hydrophone, what the World Congress Ultrasound in Medical Education refers to as the “first transducer”. From the 1920’s-1940’s sonography was used to sterilize vaccines, appease arthritic pain, and treat eczema. It was also used by members of European soccer teams as a form of physical therapy. Neurologist Karl Dussik was credited in 1942 with being the first to use sonography for medical diagnoses by transmitting an ultrasound beam through the human skull in an attempt of detecting brain tumors. Following in 1948, George D. Ludwig, MD, an Internist at the Naval Medical Research Institute developed A-mode ultrasound equipment used to detect gallstones. The University of Colorado accredits Douglas Howry and Joseph Holmes for being some of the leading pioneers of B-mode ultrasound equipment, including the 2D B-mode linear compound scanner. A handheld B-mode device, used to detect breast tumors, was invented by John Reid and John Wild.

Physician, Inge Edler and engineer, C. Hellmuth Hertz performed the first successful echocardiogram in 1953 in a Siemens shipyard, by employing an echo test control device. It was in 1958 that Dr. Ian Donald incorporated ultrasound into the OB/GYN field of medicine. This year marked the publication of the first paper in Obstetric Ultrasound, marking the first ultrasound image of a fetal head. From 1962 to the late 1960’s was an important time in the development of ultrasound. Australian, George Kossoff, engineered the Octason static scanner followed by the Octason Mark2, which produced images allowing one to see detailed fetal anatomy. Pulsed ultrasound technology was designed in 1966 by Don Baker, Dennis Watkins, and John Reid. This technology allowed for the imaging of blood flow in various layers of the heart.

The 1970’s bore many developments, including the continuous wave Doppler, spectral wave Doppler and color Doppler ultrasound instruments. Advancements in sonography equipment and techniques progressed throughout the late 1960’s and into the 1970’s. Methods to determine fetal biometry and fetal abnormalities continued to advance. It was in 1973 that the U.S. Department of Education recognized sonography as a profession in its own right.

Sam Maslak developed a machine in 1983 that set new standards in both spatial and contrast resolution. Kazunon Baba, from the University of Tokyo, developed 3D ultrasound technology, which allowed for the capture of three-dimensional images of a fetus in 1986. In 1989, Professor Daniel Lichtenstein, began incorporating lung and general sonography in intensive care units.

From the 1980's to the 1990's ultrasound technology became more sophisticated with improved image quality and 3D imaging capabilities, including the adoption of 4D real-time capabilities and ultrasound guided biopsies known as endoscopic ultrasounds. From the 2000's on, ultrasound technologies have been ever evolving and becoming more convenient with the introduction of compact, handheld devices. NASA has even developed a virtual guidance program for non-sonographers to perform ultrasounds in space. (Ultrasound Schools Info History, 2020)

## DIAGNOSTIC MEDICAL SONOGRAPHY DEFINED

According to the American Registry of Diagnostic Medical Sonography (ARDMS), sonography is a non-invasive medical procedure that uses the echoes of high-frequency sound waves (ultrasound) to construct an image of internal organs or body structures. A transmitting device, known as the transducer, sends out high-frequency ultrasound waves. These harmless sound waves, which contain no radiation, bounce off the surfaces of the object they hit. The reflected sound forms an echo visualized on the screen. (ARDMS, 2020)

Diagnostic medical sonography is a multi-specialty profession comprised of abdominal sonography, breast sonography, cardiac sonography, obstetrics/gynecology, pediatric sonography, phlebology sonography, vascular technology/sonography, and other emerging clinical areas. These diverse areas all use ultrasound as a primary technology in their daily work. (SDMS, 2020)

The diagnostic medical sonographer is an individual who provides patient care services using ultrasound and related diagnostic procedures. The diagnostic medical sonographer must be educationally prepared and clinically competent as a prerequisite to professional practice. Demonstration of competency through certification by a nationally recognized sonography credentialing organization is the standard of practice for sonography, and maintenance of certification in all areas of practice is endorsed. (SDMS, 2020)

Diagnostic medical sonographers function as the delegated agent of the physician and do not practice independently. They work closely with the each patient's health care team, before, during, and after procedures. These medical professionals use independent, professional, ethical judgement, and critical thinking to perform diagnostic sonographic procedures safely. (SDMS, 2020) They acknowledge commitment to enhanced patient care and continuous quality improvement that increases knowledge and technical competence.

A fundamental approach to the safe use of diagnostic medical ultrasound is to apply elements of the "As Low As Reasonably Achievable" (ALARA) Principle. It requires the lowest output power and the shortest scan time consistent with acquiring the required diagnostic information. The diagnostic medical sonographer uses proper patient positioning, tools, devices, equipment adjustment and ergonomically correct scanning techniques to promote patient comfort and prevent compromised data acquisition or musculoskeletal injury. (SDMS, 2020)

Diagnostic medical sonographers use the following tools; a transducer probe, a central processing unit, a monitor, a keyboard with knob controls, storage devices and a printer.

Procedures are performed with the patient positioned on the examination table. The sonographer then applies a warm water-based gel to the area of the body being studied. The gel helps the transducer make secure contact with the body and eliminate air pockets between the transducer and the skin that can block the sound waves from passing into the body. The transducer is placed on the body and moved back and forth over the area of interest until the desired images are captured. (RadiologyInfo.Org, 2020)

Despite the commonality of ultrasound technology across the field of sonography, there are respective bodies of knowledge, technical skills, and competencies within areas of specialization. A sonographer performing procedures in the following primary areas of sonography specialization: abdominal, obstetrics/gynecology, cardiac, vascular/technology sonography demonstrate competence in the specialty area(s) through specific education, training and certification. (SDMS, 2020)

If the diagnostic medical sonographer specializes or regularly performs procedures in a secondary area(s) of specialization such as breast, fetal cardiac, musculoskeletal, pediatric, or phlebology sonography, the individual demonstrates competence through certification in the area(s) by a nationally recognized sonography credentialing organization. Employers and accrediting organizations may require maintenance of diagnostic medical sonographer certification in all areas of practice. (SDMS, 2020)

## ASSOCIATIONS/CREDENTIALING ORGANIZATIONS

### *AMERICAN INSTITUTE OF ULTRASOUND MEDICINE (AIUM) (1952)*

AIUM promotes advancing safe and effective use of ultrasound in medicine through professional and public education, research, development of guidelines and accreditation.

### *AMERICAN REGISTRY FOR DIAGNOSTIC MEDICAL SONOGRAPHY (ARDMS) (1975)*

ARDMS administers examinations and awards credentials in areas of ultrasound. They support patient care quality through assessments and continual learning. ARDMS offers certification in the following areas: abdomen, breast, echocardiography, neurosonology, OB/GYN and vascular technology.

### *AMERICAN REGISTRY OF RADIOLOGIC TECHNOLOGISTS (ARRT) (1922)*

ARRT is the world's largest organization offering credentials in medical imaging, interventional procedures, and radiation therapy. They certify and register technologists in a range of disciplines by overseeing and administering education, ethics, and examination requirements. They also advocate for safety and advancement in radiological sciences professions by supporting initiatives and by contributing to industry research studies.

### *AMERICAN SOCIETY OF ECHOCARDIOGRAPHY (ASE) (1975)*

ASE is an organization of professional individuals who indicate they are committed to excellence in cardiovascular ultrasound and its application to patient care through education, advocacy, research, innovation and service to its members and the public.

*COMMISSION ON ACCREDITATION OF ALLIED HEALTH EDUCATION PROGRAMS (CAAHEP) (1994)*

CAAHEP is a programmatic postsecondary accrediting agency recognized by the Council for Higher Education Accreditation (CHEA) and carries out its accrediting activities in cooperation with 25 review Committees on Accreditation. CAAHEP currently accredits more than 2,200 entry-level education programs in 32 health science professions.

*CARDIOVASCULAR CREDENTIALING INTERNATIONAL (CCI) (1968)*

CCI is a not-for-profit corporation established for administering credentialing examinations as an independent credentialing agency. CCI offers certification in cardiovascular, vascular and phlebology ultrasound. As a credentialing agency, CCI cannot recommend or create any statements that concern scope of practice or job descriptions and functions. The hospital, laboratory, or facility makes final determinations in consideration of recommendations made by the cardiovascular specialty's professional society.

*JOINT COMMISSION ON ALLIED HEALTH PERSONNEL IN OPHTHALMOLOGY (JCAHPO) (1991)*

JCAHPO indicates that it enhances the quality and availability of ophthalmic patient care by promoting the value of qualified Allied Ophthalmic Personnel (AOP) and providing certification and education. Certifications include the Certified Diagnostic Ophthalmic Sonographers (CDOS®) credential.

*SOCIETY OF DIAGNOSTIC MEDICAL SONOGRAPHY (SDMS) (1970)*

SDMS is the largest association of sonographers and sonography students in the world with over 28,000 members. The SDMS promotes, advances, and educates its members and the medical community in the science of diagnostic medical sonography.

*SOCIETY FOR VASCULAR ULTRASOUND (SVU) (1977)*

SVU is the only professional organization completely dedicated to the advancement of noninvasive vascular technology used in the diagnosis of vascular disease. SVU is comprised of more than 4,400 vascular technologists, physicians, nurses and other allied health professionals. SVU offers educational programs, publications, networking opportunities, government representation and more.

*THE VIRGINIA SOCIETY OF ULTRASOUND (VSU) (2008)*

VSU's origin stemmed from the dissolution of the South West Virginia Society of Ultrasound. Its purpose is to provide an opportunity for fellowship and learning amongst sonographers and other professionals in the field to achieve continuing education activities necessary for the highly diversified career. VSU promotes professional excellence of practicing sonographers and learners in the field. They provide an opportunity for continuing education to persons involved in the diagnostic application of ultrasound in healthcare, and operate exclusively for the education and scientific purpose as a non-profit society.

## DISCUSSION OF THE CRITERIA

### CRITERION ONE: RISK OF HARM

Currently, four states license diagnostic medical sonographers: New Hampshire, New Mexico, North Dakota, and Oregon. Licensees are required to report violations directly to the respective state’s licensing board. In the states that do not license this profession, most require certification from a nationally recognized credentialing organization such as ARDMS, ARRT or CCI to practice in a healthcare setting. Code of Ethics violations must be reported directly to the credentialing organization.

Table 1, below, provides information on disciplinary actions or sanctions against diagnostic medical sonographers. As of this writing, only Oregon has supplied the requested information.

#### *VIOLATION & SANCTIONS*

Table 1: Violations/Sanctions by State & Organization

STATE	Complaint Filed-No Action	Practicing Without a License	Practicing on an Expired License	Unprofessional Conduct	Criminal History Not Declared on Application	ARRT Unidentified 2015-Current
New Hampshire	-	-	-	-	-	4
New Mexico	-	-	-	-	-	3
North Dakota	-	-	-	-	-	1
Oregon - Licensing Board	7	7	16	2	6	10
Virginia	0	0	0	0	0	13

\* Licensing Board had not submitted information at the time of publication.

Although ultrasound imaging is generally considered safe when used prudently by appropriately trained health care providers (there is no ionizing radiation exposure associated with ultrasound imaging), ultrasound energy does have the potential to produce biological effects on the body. Ultrasound waves can slightly heat the tissues being scanned and in some cases, can produce pockets of gas in the body fluids or tissues. The long-term consequences of these effects are still unknown. (FDA, 2020) Ultrasound procedures in which the transducer (probe) is inserted into an opening of the body may produce some discomfort.

While there are no federal safety performance standards for diagnostic ultrasound, ultrasound-imaging equipment must comply with medical device regulations, which include regular quality control tests to ensure that the equipment is functioning properly. (USFDA, 2020)

The U.S. Food and Drug Administration (FDA) cautions that 3D and 4D fetal “keepsake” photos and videos may be performed outside of the medical setting. The American Congress of Obstetricians and Gynecologists (ACOG) discourages the use of commercial non-medical ultrasounds. (UTSWMed, 2016)

Students enrolled in CAAHEP accredited ultrasound programs are required to purchase professional liability insurance (medical malpractice insurance) for sonographers. The insurance provides students the assurance that claims made against them are covered in the event of an accident and/or negligence while participating in clinical training or delivering services to patients. Policies are available through the

education program, SDMS or a private insurance company. After graduation, the diagnostic medical sonographers may purchase their own liability insurance. This would ensure adequate professional liability insurance coverage should the employers' coverage be insufficient. This additional policy would guarantee that a claim made would be covered, as the healthcare industry is highly regulated and the nature of the work performed makes it susceptible to lawsuits.

To protect the public from threats of harm, the medical facility that employs the diagnostic medical sonographer may require the individual to have the necessary credentials to perform the job. A credentialed diagnostic medical sonographer is trained to recognize the potential for harm to a patient and adhere to the Code of Ethics established by the credentialing organization.

In Virginia, the potential for fraud exists, as there are no laws or regulations regarding the practice of diagnostic medical sonography. Specifically, Virginia does not acknowledge the profession of diagnostic medical sonography, does not codify a scope of practice, nor does it provide any form of title protection for individuals practicing as diagnostic medical sonographers. Consumers are not able to readily distinguish actual credentialed diagnostic medical sonographers with academic and clinical training from those that utilize ultrasound equipment in a non-medical environment. (SDMS-Liability Insurance, 2020)

Diagnostic medical sonographers in Virginia do not receive direct payment for the procedure performed. Rather, the physician who deemed the procedure medically necessary submits for payment through private health insurance and Medicare. Most private health insurance will not cover the cost of an ultrasound that is not deemed medically necessary.

## CRITERION TWO: SPECIALIZED SKILLS AND TRAINING

According to the U.S. Bureau of Labor Statistics, the following skills are necessary for an individual to work as a diagnostic medical sonographer:

- Detail Oriented - Diagnostic imaging workers must follow precise instructions to obtain the images needed to diagnose and treat patients. They must also pay attention to the screen while scanning a patient's body, because the cues that contrast healthy areas with unhealthy ones may be subtle.
- Hand-eye Coordination - To get quality images, diagnostic imaging workers must accurately move equipment on the patient's body in response to what they see on the screen.
- Interpersonal Skills - Diagnostic imaging workers must work closely with patients. Sometimes patients are in extreme pain or mental stress, and these workers must get cooperation from the patients in order to create usable images. Diagnostic imaging workers must also communicate clearly when discussing images with physicians and other members of the healthcare team.
- Physical Stamina - Diagnostic imaging workers are on their feet for long periods and must be able to lift and move patients who need assistance.
- Technical Skills - Diagnostic imaging workers must understand how to operate complex machinery and computerized instruments. (BLS, 2019)

## EDUCATION

Individuals seeking an education in diagnostic medical sonography in Virginia should be sure that the program is recognized by CHEA, USDOE or CMA and meets the CAAHEP Diagnostic Medical Sonographer Accreditation Standards and Guidelines. The four Virginia schools, noted below, are in compliance with these requirements.

A two-year associate's degree, in sonography is designed to provide entry-level education in the following areas: cognitive (knowledge), psychomotor (skills), and effective (behavior) learning domains through a competency based clinical and didactic instructional curriculum in diagnostic sonography.

The following four schools, also noted in Table 2 on the following page, offer entry-level sonography training in Virginia:

*Northern Virginia Community College (NVCC) (Appendix 1)*

Associate Degree in Diagnostic Medical Sonography

*Piedmont Virginia Community College (PVCC) (Appendix 2)*

Associate Degree in General Sonography

*Southside Regional Medical Center Professional Schools (Appendix 3)*

Associate Degree in General Sonography

*Tidewater Community College (TCC) (Appendix 4)*

Associate Degree Program in General Sonography

Table 2. Accredited Sonography Schools in Virginia

Virginia Sonography Schools	Year Accredited	Program	Accreditation	Maximum # of Students	# of Yearly Graduates	Program Length
Northern Virginia Community College-General Sonography	2012	Associate Degree in Diagnostic Medical Sonography	CAAHEP, ARRT recognized	14	12	72 credits 4 semesters
Northern Virginia Community College-Echocardiography	program not yet accredited	Associate Degree in Diagnostic Medical Sonography-Echocardiography Specialization	CAAHEP, ARRT recognized	6		67 credits 4 semesters
Northern Virginia Community College-Vascular	program not yet accredited	Associate Degree in Diagnostic Medical Sonography-Vascular Specialization	CAAHEP, ARRT recognized	6	5	69 credits 4 semesters
Piedmont Virginia Community College	2015	Associate Degree in General Sonography	CAAHEP, ARRT recognized	14	11	72 credits 5 semesters
Southside Regional Medical Center Professional Schools	2008	Associate Degree in General Sonography	CAAHEP, ARRT recognized			67 credits 57 Weeks
Tidewater Community College Diagnostic Medical Sonography Program	1992	Associate Degree in General Sonography	CAAHEP	15	13-15	67 credits 2 years

Each accredited diagnostic medical sonography program has a curriculum that follows standards set by the American Registry of Diagnostic Medical Sonographers (ARDMS). The curriculum consists of classroom instruction, lab work and a clinical component in which students earn credits while working under a more experienced technologist in a hospital, physician’s office, or an imaging laboratory. (BLS, 2019)

Non-accredited programs usually do not meet the CAAHEP or ARDMS standards, requiring the student to take an addition year of clinical training in order to sit for the ARDMS credentialing exams.

The successful completion of one of the above listed accredited Virginia diagnostic medical sonography programs is the most comprehensive and direct way students can earn eligibility to sit for the ARDMS Sonography Principles & Instrumentation (SPI) examination, the ARRT exam and the CCI exam. (Ultrasound Schools Info-Ultrasound Tech Schools in VA, 2019)

Admission into a diagnostic medical sonography school is very competitive due to limited available seats.



## *Certificate Program*

- Approximately 1 year to obtain necessary education;
- Typically designed for current healthcare professionals or those who have already completed some type of higher education;
- One-year certificate programs are available to individuals already working in the field who hold a position such as a sonography technician.

Certificate options include (but not limited to):

- Cardiac Sonography
- Obstetrics and Gynecology Sonography
- Pediatric Cardiac Sonography
- Abdominal and Ophthalmologic Sonography
- Vascular Sonography

## *Associate's Degree*

- Typically takes two years to complete;
- Results in an Associate of Science degree in sonography;
- Pre-requisites vary from school to school;
- Is a blend of coursework with hands-on clinical rotation;
- Prepares students to become an entry level sonographer;
- Many programs will offer the opportunity to specialize in one particular area of the ultrasound profession, such as General (abdomen, obstetrics and gynecology), Vascular or Cardiac. (Ultrasound Schools Info, June 2020)

## *Bachelor's Degree*

- Typically takes four years to complete;
- Results in a Bachelor of Science Degree with a specialization in diagnostic medical sonography;
- Prepares students to become a practicing sonographer;
- May provide students with more job opportunities due to the additional length of education and specialty training, allowing them to be eligible for various specialty registry examinations;
- Pre-professional courses consist of those required for any Bachelor of Science in areas of biology, math, computer science, physics or chemistry, as well as social science classes such as liberal arts and communications;
- Professional courses delve into several areas of sonography (including gynecology, obstetrics, abdominal, vascular and cardiac), more specialized biology and physics courses (such as sectional anatomy, genetics, pathology and Doppler sonography) and patient-care classes;
- Includes clinical rotations/internships;
- In most cases, students are able to specialize in a certain area of sonography in their final one or two years of the program;
- Northern Virginia Community College requires that students have a bachelor's degree, (in any field), to enter the vascular and echocardiography program.

## Master's Degree

- This degree is for individuals who wish to teach at the university level or work in private industry;
- Allows for performing specialized research and to publish findings in medical journals;
- The highest degree in sonography that can be earned from a CAAHEP accredited program;
- Clinical skills are developed through rotations at local hospitals.

## CERTIFICATION

It is understood that most employers prefer to hire diagnostic medical sonographers with professional certification, or they may expect applicants to earn certification shortly after being hired. Certification is available from ARDMS, ARRT and CCI.

Certification is earned by graduating from an accredited program, although candidates may also qualify through alternative combinations of education and experience. All candidates must pass an exam. Most diagnostic medical sonographers have at least one certification, but many earn multiple certifications. (BLS, 2019)

## The American Registry of Radiologic Technologists (ARRT)

### ARRT Certification

Diagnostic medical sonographers may apply for sonography certification through ARRT. Individuals must complete a course of study and pass an exam to obtain certification. To acquire and maintain ARRT ultrasound certification, individuals must abide by the ARRT's Rules of Ethics.

### ARRT Exam

The final step to becoming certified and registered with ARRT is to take an examination in the specific discipline. The exams measure knowledge of the daily tasks that an entry-level technologist performs.

Table 3: ARRT Exam

Discipline	Scored Items	Pilot Items	Total Items	Tutorial Time (in min.)	NDA Time (in min.)	Test Time (in hours)	Survey Time (in min.)	Total Time (in hours)
Vascular Sonography	160	40	200	18	2	3.5	10	4.0
Breast Sonography	185	30	215	18	2	3.5	10	4.0
Sonography	Sonographic Procedures					4.0		
	Patient Care and Physical Principles of Ultrasound	360	40	400	18	2	2.5	10

\*Sonography and Registered Radiologist Assistant examinations have a 30-minute break between the two segments of the exam. This brings the total time to 7.5 hours for Sonography and 7.0 hours for R.R.A.

## ARRT Credentials

ARRT supports 15 credentials, available in a range of disciplines and through different pathways. Although all pathways share the same ethics and examination requirements, they have different education requirements. Credentials specific to sonography include, Breast Sonography (BS), Sonography (S), and Vascular Sonography (VS).

## ARRT-Maintaining Certification & Registration

ARRT requires RT's to maintain their certification and registration by fulfilling a variety of important requirements:

- Remain compliant with ARRT Rules and Regulations and ARRT Standards of Ethics;
- Renew certification and registration every year –renewal deadline is the last day of the individuals birth month;
- Be current with biennium Continuing Education (CE) Requirements by reporting CE activities every two years as part of the annual renewal process. Biennium ends the last day of the month before birth month every other year. CE requirements include approved online classes, self-study readings and modules, lectures at professional society meetings, and classroom learning.

## ARRT-Continuing Qualification Requirements Every 10 Years

As healthcare technology evolves, and patients demand increased accountability from providers, ARRT has created long-term requirements for maintaining credentials. All RTs who earned their credentials on or after January 1, 2011, must complete ARRT's Continuing Qualifications Requirements (CQR) every 10 years. CQR helps identify gaps in knowledge and skills that might cause the individual to fall behind today's entry-level qualifications. It then develops a plan for refreshing the individuals understanding and abilities.

## *The American Registry for Diagnostic Medical Sonographers (ARDMS)*

### ARDMS-Certification

Diagnostic medical sonographers may apply for sonography certification through ARDMS. Students must apply for and pass the Sonography Principles & Instrumentation (SPI) examination, which may be taken prior to graduation.

## ARDMS-SPI Exam Content Outline

Clinical Safety, Patient Care and Quality Assurance – 10%

- Patient Care, Quality Assurance, New Technologies

Physical Principles – 15%

Ultrasound Transducers – 16%

Imaging Principles and Instrumentation – 28%

Doppler Imaging Concepts – 31%

- Hemodynamics

## ARDMS-Credentials

The American Registry for Diagnostic Medical Sonography® (ARDMS®) administers examinations and awards the following credentials in areas of ultrasound:

- Registered Diagnostic Medical Sonographer® (RDMS®)
- Registered Diagnostic Cardiac Sonographer® (RDCS®)
- Registered Vascular Technologist® (RVT®)
- Registered Musculoskeletal™ Sonographer(RMSKS™)

The ARDMS offers many different credentials as noted in Table 4. Sometimes, only one major exam is required to receive a certificate, in other cases a general exam as well as a specialty exam are required. Applicants may pursue the FE specialty under either the RDMS or RDCS credential. Once the examination toward earning either the RDMS or RDCS credential is taken, it cannot be switched.

ARDMS credentials have been awarded to medical professionals worldwide and are recognized as the international standard in sonography credentialing. Credentials are renewed yearly. (Ultrasound Schools Info-Certification, July 2020).

Table 4. ARDMS SPI Exam

ARDMS-Main Exam	ARDMS-Specialty Exam	ARDMS Credential Earned
Sonography, Principles and Instrumentation (SPI) Exam	<ul style="list-style-type: none"> <li>• Abdomen (AB)</li> <li>• Breast (BR)</li> <li>• Fetal Echocardiography (FE)</li> <li>• Obstetrics and Gynecology (OB/GYN)</li> <li>• Pediatric Sonography (PS)</li> </ul>	RDMS
Sonography, Principles and Instrumentation (SPI) Exam	<ul style="list-style-type: none"> <li>• Adult Echocardiography (AE)</li> <li>• Pediatric Echocardiography (PE)</li> <li>• Fetal Echocardiography (FE)</li> </ul>	RDCS
Sonography, Principles and Instrumentation (SPI) Exam	<ul style="list-style-type: none"> <li>• Vascular Technology Exam (VT)</li> </ul>	RVT
Sonography, Principles and Instrumentation (SPI) Exam	<ul style="list-style-type: none"> <li>• Musculoskeletal Sonographer Examination (MSKS)</li> </ul>	RMSKS
Midwife Sonographer Examination	<ul style="list-style-type: none"> <li>• No special examination needed</li> </ul>	Midwife Sonographer Certificate

#### ARDMS-Exceptions to Certification

Temporary or short-term situational exceptions to the certification standard of practice may be necessary (in accordance with applicable federal and state laws and facility policy). For example:

- Students enrolled in an accredited educational program who are providing clinical services to patients under the direct supervision of an appropriately certified sonographer or other qualified healthcare provider;
- Sonographers who are cross-training in a new sonography specialty area under the direct supervision of an appropriately certified sonographer or other qualified healthcare provider; and
- Sonographers who are providing emergency assessment in an urgent care environment where an appropriately certified sonographer is not available in a timely manner.(SDMS)

## ARDMS-Continuing Medical Education (CMS)

30 hours of CME must be completed every three years; and a reassessment test must be passed in specialty areas. (Ultrasound Schools Info-ARDMS Certification, July 2020)

## *Cardiovascular Credentialing International (CCI)*

CCI is a not-for-profit corporation established for the purpose of administering credentialing examinations as an independent credentialing agency. As the globally recognized high quality provider of credentialing programs for cardiovascular professionals (nurses, allied health professionals, technologists), CCI administers programs to demonstrate the specialized knowledge and skills necessary for various cardiovascular specialties.

### CCI-Exam & Credentials

A one-part examination process is available for the following CCI Registry Level Exams:

- Congenital Cardiac Ultrasound-Registered Congenital Cardiac Sonographer (RCCS)
- Echocardiography — Registered Cardiac Sonographer (RCS)
- Phlebology / Venous Ultrasound — Registered Phlebology Sonographer (RPhS)

The only mechanism for obtaining a CCI credential is through examination by CCI. Upon passing the required examination process, the registrant is awarded a credential to signify their registry/certification status.

As a credentialing agency, CCI cannot recommend nor create any statements that concern scope of practice or job descriptions/functions. The final decision is always made by the hospital, laboratory, or facility following recommendations made by the cardiovascular specialty's professional society.

### CCI-Requirements

A graduate of a diploma, associate, or baccalaureate academic program in health science (including, but not limited to, cardiovascular technology, ultrasound, radiologic technology, respiratory therapy, or nursing);

- One year full-time or full-time equivalent work experience in cardiac ultrasound (echocardiography);
- Performance of a minimum of 600\* cardiac ultrasound studies in their career, which is defined as work experience and/or clinical experience gained during a formal educational program; and
- A verification letter to the medical and/or program director(s) confirming the number of studies performed during the applicant's employment and/or during the academic program.

## LICENSURE

Licensure laws require that the individual meet and maintain certain professional standards. They also help prevent those who are not trained or qualified from practicing. Though licensure laws vary from state to state, individuals typically must be certified by a nationally recognized organization as part of the licensure process. Fees for licensure itself are typically paid to the state.

State licensure is not required in Virginia. However, many employers do require professional certification by the American Registry for Diagnostic Medical Sonography (ARDMS). The only way to earn certification is by taking and passing their exam.

## CRITERION THREE: AUTONOMOUS PRACTICE

The diagnostic medical sonographer functions as a delegated agent of the physician and does not practice independently. The physician may be an interpreting physician (radiologist, cardiologist, gynecologist, obstetrician or vascular surgeon, etc.) who evaluates the results of the diagnostic examination and provides the final report of the finding that is included in the patient's medical record, or; be a supervising physician, who provides overall medical direction of the sonographer but whose physical presence may not necessarily be required during the performance of a diagnostic examination. The supervising physician is available to review examination procedures and to offer direction and feedback. In some clinical environments, the supervising and interpreting physician may be the same person. (SDMS-Autonomous Practice, 2020)

## CRITERION FOUR: SCOPE OF PRACTICE AND OVERLAP

The US Department of Labor considers ultrasound technician jobs to be distinct and separate from radiology jobs, due to the unique duties and skills required to perform the job. The Current Procedural Terminology (CPT) code range for Diagnostic Ultrasound Procedures is 76506-76999. (AAPC Coder, 2020). The Occupation Code for Diagnostic Medical Sonographers is 29-2032.00. (O\*Net OnLine, 2019)

According to O\*Net online, diagnostic medical sonographers use the following job titles:

- Cardiac Sonographer
- Cardiac/Vascular Sonographer
- Diagnostic Medical Sonographer
- Diagnostic Ultrasound Professionals
- Medical Sonographer
- Registered Medical Sonographer (RDMS)
- Sonographer
- Sonography Technologist
- Staff Sonographer
- Ultrasonographer
- Ultrasound Technician (Ultrasound Tech)
- Ultrasound Technologist (Ultrasound Tech)

Job titles that also include sonography and may or may not require certification are:

- Medical Imaging Specialist
- Medical Imaging Technician
- Imaging Technician
- Imaging Technologist (Study.Com-Medical Imaging, 2020)
- Registered Technologist (must pass ARRT credential exam to get RT designation)

The sonographer uses an instrument called an ultrasound transducer to scan parts of the patient's body that are being examined. The transducer emits high frequency sound waves that bounce back, causing echoes. The echoes are then sent to an ultrasound machine, which processes them and displays them as images (sonograms) which in turn are used by physicians to assess and diagnosis medical conditions. Sonograms are often the first imaging tests performed when disease is suspected. Sonographers work closely with physicians and surgeons before, during, and after procedures. (BLS, 2019)

The practice of diagnostic medical sonography is specific in its scope of practice. (APPENDIX 5) Job responsibilities and duties include, but are not limited to:

- Working with patients of all ages and physical abilities;
- Verifying the health status and clinical history of the patient;
- Communication with the patient, explaining the procedure, what to expect during the procedure and answer any questions the patient may have;
- Independently assessing and consulting with the medical team to be sure that the planned procedure achieves optimal results;
- Receiving appropriate approval to administer contrast media through an intravenous line;
- Ensuring that quality patient care is defined before, during and after a procedure;
- Physically moving or assisting the movement of the patient to ensure comfort;
- Operating ultrasound equipment;
- Analyzing data in real time to ensure optimal results;
- Ensure that the procedure is successful by allowing minimal patient exposure to high-frequency sound waves;
- Ensure that appropriate testing and protocols and guidelines were followed during the procedure;
- Evaluating the ultrasound exam results and identify and document unexpected exam results that may require immediate medical attention or further testing; and
- Complete all required paperwork to explain exam findings to the physician. (Ultrasound Technician Center-Scope of Practice, 2020)

Diagnostic medical sonographers help preserve the profession by adhering to a professional code of ethics designed to protect the patient's wellbeing, professional standards, competent practice and public trust. These individuals take an active role in assessing the effectiveness and safety of the equipment used to perform the procedure as well as the work environment that they work in.

Many diagnostic medical sonographers undertake professional certification in a specialty area, to expand their knowledge beyond general sonography procedures. Continuing education is also required to ensure that they are meeting the requirements of their certifying body or the state in which they are licensed. A certified sonographer is qualified to work in a variety of health care settings.



## CRITERION FIVE: ECONOMIC IMPACT

### WAGES & SALARIES

According to the US Bureau of Labor Statistics, Occupation Code 29-2032: Diagnostic Medical Sonographer, the 2019 median annual wage for the profession was \$74,320, with the lowest 10% earning less than \$52,770 and the highest 10% earning more than \$102,060. The national employment estimate for this occupation was \$72,790. (BLS-Occupation Code 29-2032, 2019)

Table 5: Salary of Diagnostic Medical Sonographers by State

State	Salary
New Hampshire	\$78,650
New Mexico	\$66,530
North Dakota	\$71,030
Oregon	\$88,360
Virginia	\$74,020

Source: Career Explorer

In Virginia, 2018 Labor Market Information estimated the number of employed diagnostic medical sonographers at 1,570. The entry wage is noted as \$57,311 with the median wage at \$75,742 and the experienced wage at \$85,178. (Virginia Employment Commission, 2018)

Diagnostic medical sonographers held about 72,900 jobs in the United States in 2018. The largest employers were:

- Hospitals-state, local & private - 60%
- Offices of Physicians - 21%
- Medical & Diagnostic Laboratories - 11%
- Outpatient Care Centers - 4%

The overall employment for the profession is projected to grow 19% from 2018-2028, much faster than the average for all occupations. As the large baby-boom population ages, the need to diagnose medical conditions (such as blood clots and heart disease) will likely increase. According to the U.S. Bureau of Labor Statistics, diagnostic medical sonographer salaries vary based on location, setting, population, experience, training, full time or part time employment, as well as a number of other factors.

### WORKFORCE ADEQUACY

According to Projections Central, there are 1,700 diagnostic medical sonographers in Virginia. Short-term projections estimate that Virginia will have 1,760 by 2021. It may be said that this profession is a vital component of the healthcare team and is projected to experience continued upward growth. (Projections Central, 2019)

Whether there is a shortage or oversupply of these practitioners in Virginia is unknown as the supply and demand data are not available to make such an assessment.

## *REIMBURSEMENT*

Medicare, and many health insurance plans, will pay for ultrasound procedures. The ultrasound must be doctor prescribed, deemed medically necessary and performed by a certified sonographer, technologist or technician to receive reimbursement. (BLS-Reimbursement, 2019)

Most health insurance companies have interpreted the Affordable Care Act's requirements on prenatal coverage with no cost sharing to exclude ultrasounds. A copayment, coinsurance or deductible may apply for these services. (ValuePenguin.Com, 2019)

## CRITERIA SIX AND SEVEN: ALTERNATIVES TO REGULATION/ LEAST RESTRICTIVE REGULATION

Currently, four states regulate diagnostic medical sonographers. Of the states that do not regulate, most require certification from a national credentialing organization in order to practice.

## *DIAGNOSTIC MEDICAL SONOGRAPHY LICENSURE IN OTHER STATES*

### *New Hampshire*

In May 2016, New Hampshire became the fourth state to require licensure of Sonographers. To qualify for licensure, the applicant must be 18 years of age; have a high school diploma or equivalency; successfully completed a course of study in sonography approved by the board; possess current certification or registration in sonography from ARDMS, ARRT, and CCI or, a certification organization approved by the Board of Medical Imaging and Radiation Therapy. According to ARDMS, New Hampshire has a total of 316 individuals with the registered diagnostic medical sonographer credential. (New Hampshire, 2020) (Appendix 6 )

### *New Mexico*

In April 2009, a historic bill was signed that, for the first time in the United States, require sonographers to be licensed. The bill added sonographers to the list of medical imaging professionals licensed by the State of New Mexico. An applicant for a medical imaging or radiation therapy license shall submit the required application to the department; the applicable application fee located in §20.3.20.501 NMAC, and shall be currently certified and registered by a medical imaging or radiation therapy credentialing organization recognized by the board. According to ARDMS, New Mexico currently has an estimated 433 individuals with the registered diagnostic medical sonographer credential. (New Mexico, 2019) (Appendix 7)

### *North Dakota*

In March 2015, North Dakota became the third state in the country to require practicing Sonographers to carry a state license. The North Dakota Medical Imaging and Radiation Therapy Board set licensing

standards and expanded the responsibilities of the state's sonographers, allowing them to take verbal orders from physicians and other health practitioners and enter them into the patient's electronic health record. According to ARDMS, North Dakota currently has an estimated 152 individuals with the registered diagnostic medical sonographer credential. (Appendix 8)

## *Oregon*

In July 2009, a sonographer licensure bill was signed into law, making Oregon the second in the United States to require licensure of sonographers. The law restructured the Oregon Board of Radiologic Technologists to the Oregon Board of Medical Imaging and ensured representation of sonographers on the Board. Sonographers may apply for a two-year license or permit and are required to hold a national sonography certification/credential, or be currently enrolled as a student. According to ARDMS, Oregon currently has an estimated 754 individuals with the registered diagnostic medical sonographer credential.

Students and recent graduates may apply for six-month temporary license to enable them to work while waiting to take the credentialing examination. A temporary licensee must be supervised by a physician or a technologist licensed in the same modality as the student or graduate. Temporary post-primary licenses are available to current permanent licensees who wish to complete clinical requirements to add an additional (post-primary) modality to their existing license; contact OBMI for details. (OAR 337-010-0045)

Exempt from regulation by the OBMI: All licensed physicians; all X-ray in dental offices; students in approved schools operating under supervision of the school's clinical director; licensed health care providers utilizing sonography within their scope of practice; and imaging done for education and research.

Recognized national credentialing organizations: ARRT, ARDSM, and CCI. (Oregon.Gov, 2018) (Appendix 9)

## *Virginia*

Statewide licensure is not required in Virginia. However, many employers do require professional certification by ARDMS. According to ARDMS, Virginia currently has 1,494 individuals with the diagnostic medical sonographer credential.

In Virginia, most employers of diagnostic medical sonographers prefer that the individual have credentialing from ARDMS, ARRT or CCI. This ensures them that the sonographer is competent to perform to the professions scope of practice.

## *Impact of Licensure on the Department Of Health Professions*

Some regulated professions lack a sufficient number of individuals to cover their regulatory costs. This places a strain on a board's cash resources.

## SUMMARY OF PUBLIC COMMENT

A virtual public hearing was conducted on August 20, 2020. The purpose of the hearing was to receive public comment on the need to regulate diagnostic medical sonographers in the Commonwealth of Virginia.

There were no individuals who requested to provide public comment regarding the profession, and no written comment was received by the Board of Health Professions office.

## APPENDIX

APPENDIX 1: NORTHERN VIRGINIA COMMUNITY COLLEGE (NVCC)

APPENDIX 2: PIEDMONT VIRGINIA COMMUNITY COLLEGE (PVCC)

APPENDIX 3: SOUTHSIDE REGIONAL MEDICAL CENTER PROFESSIONAL SCHOOLS

APPENDIX 4: TIDEWATER COMMUNITY COLLEGE (TCC)

APPENDIX 5: DIAGNOSTIC MEDICAL SONOGRAPHER SCOPE OF PRACTICE

APPENDIX 6: NEW HAMPSHIRE

APPENDIX 7: NEW MEXICO

APPENDIX 8: NORTH DAKOTA

APPENDIX 9: OREGON



### Pre-requisite Requirements - 19 credits

#### Courses (must have a B or higher grade to apply)

ENG 111	College Composition I (3cr) or higher English
SDV 101	Orientation to Healthcare (1cr) or SDV 100 or SDV ABLÉ exam
MTH 154	Quantitative Reasoning (3cr) or higher Math
BIO 141	Human Anatomy & Physiology I w/Lab (4cr)
BIO 142	Human Anatomy & Physiology II w/Lab (4cr)
PHY 101	Introduction to Physics I (4cr) or higher Physics

#### Other Testing and Degree Requirements

Complete English, Reading, and Math sections of TEAS; minimum score of 50 in each section

Previous bachelor's degree in any field required for Vascular and Echocardiography (not required for General)

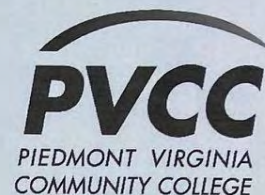
### DMS Core Curriculum

General – 51 credits	Vascular – 48 credits	Echocardiography – 50 credits
<b>Semester 1 – Fall (15cr)</b>	<b>Semester 1 – Fall (15cr)</b>	<b>Semester 1 – Fall (15cr)</b>
DMS 190 Coordinated Internship (2cr)	DMS 190 Coordinated Internship (2cr)	DMS 190 Coordinated Internship (2cr)
DMS 206 Introduction to Sonography (3cr)	DMS 206 Introduction to Sonography (3cr)	DMS 206 Introduction to Sonography (3cr)
DMS 207 Sectional Anatomy (2cr)	DMS 207 Sectional Anatomy (2cr)	DMS 207 Sectional Anatomy (2cr)
DMS 217 Sectional Anatomy Lab (1cr)	DMS 217 Sectional Anatomy Lab (1cr)	DMS 217 Sectional Anatomy Lab (1cr)
DMS 208 Ultrasound Physics I (2cr)	DMS 208 Ultrasound Physics I (2cr)	DMS 208 Ultrasound Physics I (2cr)
DMS 218 Ultrasound Physics I Lab (1cr)	DMS 218 Ultrasound Physics I Lab (1cr)	DMS 218 Ultrasound Physics I Lab (1cr)
HLT 141 Medical Terminology I (1cr)*	HLT 141 Medical Terminology I (1cr)*	HLT 141 Medical Terminology I (1cr)*
HLT 220 Concepts of Disease (3cr)	HLT 220 Concepts of Disease (3cr)	HLT 220 Concepts of Disease (3cr)
<b>Semester 2 – Spring (14cr)</b>	<b>Semester 2 – Spring (13cr)</b>	<b>Semester 2 – Spring (13cr)</b>
DMS 196 On-Site Sonography Training (3cr)	DMS 196 On-Site Sonography Training (3cr)	DMS 150 Echocardiography I w/Lab (4cr)
DMS 209 Ultrasound Physics II (2cr)	DMS 209 Ultrasound Physics II (2cr)	DMS 196 On-Site Sonography Training (3cr)
DMS 219 Ultrasound Physics II Lab (1cr)	DMS 219 Ultrasound Physics II Lab (1cr)	DMS 209 Ultrasound Physics II (2cr)
DMS 211 Abdominal Sonography w/Lab (4cr)	DMS 260 Vascular Sonography II w/Lab (4cr)	DMS 219 Ultrasound Physics II Lab (1cr)
DMS 212 Ob/Gyn Sonography w/Lab (4cr)	PSY 200 Principles of Psychology (3cr)	PSY 200 Principles of Psychology (3cr)
<b>Semester 3 – Summer (12cr)</b>	<b>Semester 3 – Summer (8cr)</b>	<b>Semester 3 – Summer (10cr)</b>
DMS 231 Clinical Education I (3cr)	DMS 160 Vascular Sonography I w/Lab (4cr)	DMS 231 Clinical Education I (3cr)
DMS 241 Advanced Abdominal w/Lab (3cr)	DMS 231 Clinical Education I (3cr)	DMS 250 Echocardiography II w/Lab (4cr)
DMS 242 Advanced Ob/Gyn w/Lab (3cr)	DMS 265 Vascular Case Study Review (1cr)	DMS 256 Echo Case Study Review (1cr)
Humanities elective (3cr)**		EMS 153 Basic ECG Recognition (2cr)
<b>Semester 4 – Fall (12cr)</b>	<b>Semester 4 – Fall (12cr)</b>	<b>Semester 4 – Fall (12cr)</b>
DMS 222 Sonography Registry Review (2 cr)	DMS 232 Clinical Education II (4cr)	DMS 223 Intro to Vascular Sono w/Lab (3cr)
DMS 223 Intro to Vascular Sono w/Lab (3cr)	DMS 266 Vascular Registry Review (2cr)	DMS 232 Clinical Education II (4cr)
DMS 232 Clinical Education II (4cr)	DMS 295 Intro to General Sono w/Lab (3cr)	DMS 255 Echo Registry Review (2cr)
PSY 200 Principles of Psychology (3cr)	Humanities elective (3cr)**	Humanities elective (3cr)**
<b>Total program: 72 credits</b>	<b>Total program: 67 credits</b>	<b>Total program: 69 credits</b>

\* May substitute HIM 111 Medical Terminology for 3 credits or Medical Terminology ABLÉ exam available at MEC Testing Center

\*\* Refer to General Education electives section of current college catalog for list of accepted humanities courses





➔ **Fall 2020**

*Application Deadline is June 1, 2020*

# **Diagnostic Medical Sonography**

## **Associate of Applied Science Degree**

### **ADMISSION REQUIREMENTS AND PROGRAM INFORMATION**



Accredited by:

Southern Association of Colleges and Schools Commission on Colleges  
1866 Southern Lane  
Decatur, GA 30033-4097  
404.679.4500

Commission on Accreditation of Allied Health Education Programs Via JRC DMS  
25400 US Highway 19 N., Ste 158  
Clearwater, FL 33763  
727.210.2350

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6201 University Boulevard, Suite 500  
Ellicott City, MD 21043  
Phone: 443.973.3251

Piedmont Virginia Community College  
501 College Drive  
Charlottesville, VA 22902  
434.961.6582  
enichols@pvcc.edu  
www.pvcc.edu/sonography

# Curriculum for Diagnostic Medical Sonography Program

Semester	Course	Course Description	Credits	Course Requirement
<b>General Education Courses (taken prior to applying to program)</b>				
<b>Semester 1 (Fall)</b>	SDV 100/101	Orientation	1	DMS Admission Requirement. Minimum grade of C.
	ENG 111	College Composition	3	DMS Admission Requirement. Minimum grade of C
	MTH 115 Or MTH 131	Technical Math	3	DMS Admission Requirement. Minimum grade of C
	BIO 141	Anatomy and Physiology I	4	DMS Admission Requirement. Minimum grade of C
	ITE 119	Information Literacy	3	DMS Admission Requirement. Minimum grade of C. Requirement may be met by completing credit by exam with a grade of 75% or higher
<b>Semester 2 (Spring)</b>	ENG 112	College Composition II	3	Minimum grade of C.
	BIO 142	Human Anatomy and Physiology II	4	DMS Admission Requirement. Minimum grade of C
	PHY 100	Elements of Physics	4	DMS Admission Requirement. Minimum grade of C
	HLT 141	Medical Terminology	2	DMS Admission Requirement. Minimum grade of C. Requirement may be met by completing credit by exam with a grade of 70% or higher
<b>APPLY FOR ADMISSION TO SONOGRAPHY PROGRAM</b>				<b>Minimum Curricular GPA of 2.5</b>  <b>ALL ADMISSION PREREQUISITES MUST BE COMPLETED (see program information booklet on website and attend mandatory pre-admission advising session for discussion of other admission prerequisites)</b>
<b>Admission Into DMS Program</b>				
<b>Semester 3 (Fall)</b>	DMS 206	Introduction to Sonography	2	SUCCESSFUL Admission to program
	DMS 207	Sectional Anatomy	2	SUCCESSFUL Admission to program



	DMS 208	Ultrasound Physics and Instrumentation	2	SUCCESSFUL Admission to program
	PHI 220	Ethics	3	
	PSY 230	Developmental Psychology	3	
<b>Semester 4 (Spring)</b>	DMS 211	Abdominal Sonography	4	Successful completion of all previous semester DMS courses
	DMS 231	Clinical Education I	3	Successful completion of all previous semester DMS courses.
	DMS 209	Ultrasound Physics and Instrumentation II	2	Successful completion of all previous semester DMS courses
	DMS 212	Obstetrical and Gynecological Sonography	3	Successful completion of all previous semester DMS courses
	DMS 219	Ultrasound Physics and Instrumentation Lab	1	Successful completion of all previous semester DMS courses
<b>Semester 5 (Summer)</b>	DMS 232	Clinical Education II	4	Successful completion of all previous semester DMS courses
	DMS 242	Advanced Obstetrical and Gynecological Sonography	3	Successful completion of all previous semester DMS courses
<b>Semester 6 (Fall)</b>	DMS 223	Introduction to Vascular Sonography	2	Successful completion of all previous semester DMS courses
	DMS 221	Ultrasound Seminar	3	Successful completion of all previous semester DMS courses
	DMS 233	Clinical Education III	5	Successful completion of all previous semester DMS courses.
<b>Semester 7 (Spring)</b>	DMS 222	Sonography Registry Review	2	Successful completion of all previous semester DMS courses
	DMS 234	Clinical Education IV	6	Successful completion of all previous semester DMS courses.
<b>APPLY FOR GRADUATION AND REGISTER TO TAKE BOARDS</b>				<b>Successful completion of all degree requirement.</b>
<b>Total Curriculum Credits</b>			<b>72</b>	

## Curriculum Plan for AAS in Diagnostic Medical Sonography

Semester I	Total Credit Hours	Theory Hours	Lab Hours	Clinical Hours
DMS 200: Introduction to Ultrasound	2	30	0	0
DMS 220: Cross Section	2	30	0	0
DMS 260: Instrumentation I	3	45	0	0
DMS 273: Abdominal & Small Parts Imaging	5	45	60	0
	<b>12</b>	<b>150</b>	<b>60</b>	<b>0</b>
Semester II				
DMS 250: Clinical I	4	0	0	180
DMS 261: Instrumentation II	3	45	0	0
DMS 271: OB/GYN Imaging	5	45	60	0
	<b>12</b>	<b>90</b>	<b>60</b>	<b>180</b>
Semester III				
DMS 272: Introduction to Vascular Ultrasound	3	30	30	0
DMS 290: Seminar I	2	30	0	0
DMS 240: Advanced Imaging	3	45	0	0
DMS 253: Clinical II	8	0	0	360
	<b>16</b>	<b>105</b>	<b>30</b>	<b>360</b>
Semester IV				
DMS 291: Seminar II	2	30	0	0
DMS 254: Clinical III	8	0	0	360
	<b>10</b>	<b>30</b>	<b>0</b>	<b>360</b>
Prerequisite Courses				
Human Anatomy & Physiology	4	45	45	0
College Algebra or Statistics	3	45	0	0
English Composition	3	45	0	0
College or Radiologic Physics	4	45	45	0
General Psychology	3	45	0	0
<b>Totals</b>	<b>67</b>	<b>600</b>	<b>240</b>	<b>900</b>





**TIDEWATER COMMUNITY COLLEGE**  
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**Official Curriculum Guide**

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Date Entered TCC: \_\_\_\_\_

SIS Empl ID: \_\_\_\_\_

Counselor: \_\_\_\_\_

**Associate of Applied Science: Diagnostic Medical Sonography(109)**

The Associate of Applied Science (A.A.S.) degree in Diagnostic Medical Sonography (DMS) prepares individuals for careers as staff sonographers in radiology departments, hospital settings, private offices, outpatient clinics, military units, and the ultrasound industry. Program applications and the general admission application to the college must be submitted to the Virginia Beach Admissions Office no later than May 15.

Applicants must obtain CPR certification from the American Heart Association prior to admission. Applicants must also complete all benchmark courses with a "C" or better to be considered for admission into the DMS program. Students must submit an unofficial transcript along with their health professions application. They must also submit an official copy of their Allied Health Program transcripts and transcripts from other colleges attended to the Office of the College Registrar at Tidewater Community College prior to the application deadline. Applicants who meet all benchmarks will continue to the next stage of the application process and will be required to complete an assigned essay and interview with the program representative(s).

The Diagnostic Medical Sonography program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) in conjunction with the Joint Review Committee on Education in Diagnostic Medical Sonography (JRC-DMS).

CAAHEP: 25400 US Highway 19 North, Suite 158, Clearwater, FL 33763, (727) 210-2350, <http://www.caahep.org/>  
JRC-DMS: 6021 University Boulevard, Suite 500, Ellicott City, MD 21043, (443) 973-3251, <http://www.jrcdms.org/>

Admission to the college does not guarantee admission to the DMS program. If admitted, students must meet certain conditions for continuance. Students are financially responsible for their uniforms and travel. For further information, go to [tcc.edu](http://tcc.edu) (search keywords "diagnostic medical sonography").

**Pre-Admission Semester**

Classification Course No.	Course Title	Credits	Prerequisites	Co-Requisites	When Taken	Grade
BIO 141	Human Anatomy and Physiology I	4	NAS 2 or acceptable NAS 2 Challenge Exam score	None	_____	( )
ENG 111	College Composition I	3	EDE 10, ENF 1, ENF 2 or placement	None or EDE 11 with placement	_____	( )
HLT 141	Introduction to Medical Terminology (or HLT 143)	2	None	None	_____	( )
MTH 154 or higher	Quantitative Reasoning	3	MDE 10; MTH 3 and MTH 5; or placement	None or MDE 54 with placement	_____	( )
PHY 100	Elements of Physics	4	None	None	_____	( )
SDV 101	Orientation to Health Care	1	None	None	_____	( )
	<b>Semester Total</b>	<b>17</b>				

## Semester 1

Classification Course No.	Course Title	Credits	Prerequisites	Co-Requisites	When Taken	Grade
*DMS 206	Introduction to Sonography	2	Admission into program or instructor permission	None	_____	( )
*DMS 207	Sectional Anatomy	2	Admission into program or instructor permission	None	_____	( )
*DMS 208	Ultrasound Physics and Instrumentation I	3	Admission into program or instructor permission	None	_____	( )
*DMS 211	Abdominal Sonography	4	Admission into program or instructor permission	None	_____	( )
*DMS 231	Clinical Education I	2	Admission into program or instructor permission	None	_____	( )
<b>Semester Total</b>		<b>13</b>				

## Semester 2

Classification Course No.	Course Title	Credits	Prerequisites	Co-Requisites	When Taken	Grade
DMS 209	Ultrasound Physics and Instrumentation II	3	Admission into program and DMS 208 or instructor permission	None	_____	( )
DMS 221	Ultrasound Seminar I	3	Admission into program or instructor permission	None	_____	( )
*DMS 232	Clinical Education II	4	Admission into program and DMS 231 or instructor permission	None	_____	( )
<b>Semester Total</b>		<b>10</b>				

## Semester 3

Classification Course No.	Course Title	Credits	Prerequisites	Co-Requisites	When Taken	Grade
DMS 212	Obstetrical and Gynecological Sonography	4	Admission into program	DMS 211 or instructor permission	_____	( )
*DMS 233	Clinical Education III	5	Admission into program and DMS 232 or instructor permission	None	_____	( )
DMS 240	Advanced Topics in Ultrasound	3	DMS 207 and DMS 211	None	_____	( )
_____	Humanities Elective <sup>1</sup>	3			_____	( )
<b>Semester Total</b>		<b>15</b>				

## Semester 4

Classification Course No.	Course Title	Credits	Prerequisites	Co-Requisites	When Taken	Grade
DMS 222	Sonography Registry Review	3	Admission into program or instructor permission	None	_____	( )
*DMS 234	Clinical Education IV	6	Admission into program and DMS 233 or instructor permission	None	_____	( )



## Semester 4

Classification Course No.	Course Title	Credits	Prerequisites	Co-Requisites	When Taken	Grade
	Social Science Elective <sup>1</sup>	3				( )
	<b>Semester Total</b>	<b>12</b>				

**Total Minimum Credits 67**

<sup>1</sup> Eligible courses are listed under General Education Core Requirements. Students should consult with an academic advisor or counselor to choose the appropriate course(s).

### Course Classification Legend

- ☆ Critical Course - A course faculty have identified as one that students should complete successfully, with a high level of understanding and comprehension, to progress in the program.
- \* Experiential Learning - A course where students can expect hands-on experiences and/or practical exposure opportunities which could be in or out of the classroom.
- + Gateway Course - A course that serves as an introduction to the program and is typically offered early in the program.
- ◆ Milestone Course - Key intervals of program completion, if applicable.

# Scope of Practice and Clinical Standards for the Diagnostic Medical Sonographer

*April 13, 2015*



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## SCOPE OF PRACTICE REVISION PROCESS

In May 2013, representatives of sixteen organizations came together to begin the process of revising the existing Scope of Practice and Clinical Practice Standards. Thus began a process that engaged the participating organizations in an unrestricted dialogue about needed changes. The collaborative process and exchange of ideas has led to this document, which is reflective of the current community standard of care. The current participants recommend a similar collaborative process for future revisions that may be required as changes in ultrasound technologies and healthcare occur.

## PARTICIPATING ORGANIZATIONS

The following organizations participated in the development of this document. Those organizations that have formally endorsed the document are identified with the “†” symbol. Supporting organizations are identified with the “\*” symbol.

- American College of Radiology (ACR) \*
- American Congress of Obstetricians and Gynecologists (ACOG) \*
- American Institute of Ultrasound in Medicine (AIUM) \*
- American Registry for Diagnostic Medical Sonography (ARDMS) \*
- American Registry of Radiologic Technologists (ARRT) \*
- American Society of Echocardiography (ASE) †
- American Society of Radiologic Technologists (ASRT) \*
- Cardiovascular Credentialing International (CCI) †
- Joint Review Committee on Education in Diagnostic Medical Sonography (JRC-DMS) †
- Joint Review Committee on Education in Cardiovascular Technology (JRC-CVT) \*
- Society of Diagnostic Medical Sonography (SDMS) †
- Society of Radiologists in Ultrasound (SRU) \*
- Society for Maternal-Fetal Medicine (SMFM) †
- Society for Vascular Surgery (SVS) †
- Society for Vascular Ultrasound (SVU) †
- Sonography Canada (formerly the Canadian Society of Diagnostic Medical Sonography) \*

## OTHER SUPPORTING/ENDORISING ORGANIZATIONS

Other organizations that have formally endorsed the document are identified with the “†” symbol. Other supporting organizations are identified with the “\*” symbol.

- American College of Phlebology \*

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**Note:** *Some organizations have internal policies that do not permit endorsement of external documents. “Supporting organization” denotes a more limited level of review and approval than endorsement and means the organization considers the clinical document to be of educational value, although it may not agree with every recommendation or statement in the document.*

Rev. 11/30/2015



## LIMITATION AND SCOPE

Federal and state laws, accreditation standards, and lawful facility policies and procedures supersede these standards. A diagnostic medical sonographer, within the boundaries of all applicable legal requirements and restrictions, exercises individual thought, judgment, and discretion in the performance of an examination taking into account the facts of the individual case.

This document is intended to set forth the standards in major areas of the diagnostic medical sonographer's responsibilities. It does not cover all areas or topics that may present themselves in actual practice. In addition, technological changes or changes in medical practice may require modification of the standards.

**DISCLAIMER:** THIS DOCUMENT IS PROVIDED WITHOUT ANY REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED. THE PARTICIPATING AND ENDORSING ORGANIZATIONS EXPRESSLY DISCLAIM ALL LIABILITY TO ANY PARTY FOR THE ACCURACY, COMPLETENESS, OR AVAILABILITY OF THIS DOCUMENT, OR FOR DAMAGES ARISING OUT OF THE USE OF THIS DOCUMENT AND ANY INFORMATION IT CONTAINS.

## SCOPE OF PRACTICE AND CLINICAL STANDARDS FOR THE DIAGNOSTIC MEDICAL SONOGRAPHER

The purpose of this document is to define the scope of practice and clinical standards for diagnostic medical sonographers and describe their role as members of the healthcare team. Above all else, diagnostic medical sonographers act in the best interest of the patient.

### DEFINITION OF THE PROFESSION

Diagnostic medical sonography is a multi-specialty profession comprised of abdominal sonography, breast sonography, cardiac sonography, obstetrics/gynecology sonography, pediatric sonography, phlebology sonography, vascular technology/sonography, and other emerging clinical areas. These diverse areas all use ultrasound as a primary technology in their daily work.

The diagnostic medical sonographer is an individual who provides patient care services using ultrasound and related diagnostic procedures. The diagnostic medical sonographer must be educationally prepared and clinically competent as a prerequisite to professional practice. Demonstration and maintenance of competency through certification by a nationally recognized sonography credentialing organization is the standard of practice in sonography, and maintenance of certification in all areas of practice is endorsed.

The diagnostic medical sonographer:

- Functions as a delegated agent of the physician; and
- Does not practice independently.

Diagnostic medical sonographers are committed to enhanced patient care and continuous quality improvement that increases knowledge and technical competence. Diagnostic medical sonographers use independent, professional, ethical judgment, and critical thinking to safely perform diagnostic sonographic procedures.

A fundamental approach to the safe use of diagnostic medical ultrasound is to apply elements of the *As Low As Reasonably Achievable* (“ALARA”) Principle including lowest output power and the shortest scan time consistent with acquiring the required diagnostic information. The diagnostic medical sonographer uses proper patient positioning, tools, devices, equipment adjustment, and ergonomically correct scanning techniques to promote patient comfort and prevent compromised data acquisition or musculoskeletal injury to the diagnostic medical sonographer.

## DIAGNOSTIC MEDICAL SONOGRAPHER CERTIFICATION/CREDENTIALING

A diagnostic medical sonographer must be competent in any sonographic procedure they perform. Certification by a sonography credentialing organization that is accredited by National Commission of Certifying Agencies (NCCA) or the American National Standards Institute - International Organization for Standardization (ANSI - ISO) represents “standard of practice” in diagnostic sonography.

Despite the commonality of ultrasound technology across the field of sonography, the bodies of knowledge, technical skills, and competencies of sonographers in different areas of sonography specialization are markedly different. If performing procedures in any of the following primary areas of sonography specialization, a diagnostic medical sonographer must demonstrate competence in the specialty area(s) through appropriate education, training, and certification:

1. Abdominal Sonography
2. Obstetrical/Gynecological Sonography
3. Cardiac Sonography
4. Vascular Technology/Sonography

If the diagnostic medical sonographer specializes or regularly performs procedures in secondary area(s) of specialization (e.g., breast sonography, fetal cardiac sonography, musculoskeletal sonography, pediatric sonography, phlebology sonography, etc.), the diagnostic medical sonographer should demonstrate competence through certification in the area(s) of practice by a nationally recognized sonography credentialing organization. Employers and accrediting organizations should require maintenance of diagnostic medical sonographer certification in all areas of practice.

**NOTE:** Temporary or short-term situational exceptions to the certification standard of practice may be necessary (in accordance with applicable federal and state laws and facility policy). For example:

1. Students enrolled in an accredited educational program who are providing clinical services to patients under the direct supervision of an appropriately certified sonographer or other qualified healthcare provider;
2. Sonographers who are cross-training in a new sonography specialty area under the direct supervision of an appropriately certified sonographer or other qualified healthcare provider; and
3. Sonographers who are providing emergency assessment in an urgent care environment where an appropriately certified sonographer is not available in a timely manner.

## DIAGNOSTIC MEDICAL SONOGRAPHY CLINICAL STANDARDS

Standards are designed to reflect behavior and performance levels expected in clinical practice for the diagnostic medical sonographer. These clinical standards set forth the principles that are common to all of the specialties within the larger category of the diagnostic sonography profession. Individual specialties or clinical areas may extend or refine, but not limit, these general principles according to their specific practice requirements.

### SECTION 1

#### STANDARD – PATIENT INFORMATION ASSESSMENT AND EVALUATION:

---

- 1.1 Information regarding the patient's past and present health status is essential in providing appropriate diagnostic information. Therefore, pertinent data related to the diagnostic sonographic procedure should be collected and evaluated to determine its relevance to the examination. The diagnostic medical sonographer:
  - 1.1.1 Verifies patient identification and that the requested examination correlates with the patient's clinical history and presentation. In the event that the requested examination does not correlate, either the supervising physician or the referring physician will be notified.
  - 1.1.2 In compliance with privacy and confidentiality standards, interviews the patient or their representative, and/or reviews the medical record to gather relevant information regarding the patient's medical history and current presenting indications for the study.
  - 1.1.3 Evaluates any contraindications, insufficient patient preparation, and the patient's inability or unwillingness to tolerate the examination and associated procedures.

#### STANDARD – PATIENT EDUCATION AND COMMUNICATION:

---

- 1.2 Effective communication and education are necessary to establish a positive relationship with the patient or the patient's representative, and to elicit patient cooperation and understanding of expectations. The diagnostic medical sonographer:
  - 1.2.1 Communicates with the patient in a manner appropriate to the patient's ability to understand. Presents explanations and instructions in a manner that can be easily understood by the patient and other healthcare providers.
  - 1.2.2 Explains the examination and associated procedures to the patient and responds to patient questions and concerns.
  - 1.2.3 Refers specific diagnostic, treatment, or prognosis questions to the appropriate physician or healthcare professional.

**STANDARD – ANALYSIS AND DETERMINATION OF PROTOCOL FOR THE DIAGNOSTIC EXAMINATION:**

---

- 1.3** The most appropriate protocol seeks to optimize patient safety and comfort, diagnostic quality, and efficient use of resources, while achieving the diagnostic objective of the examination. The diagnostic medical sonographer:
- 1.3.1 Integrates medical history, previous studies, and current symptoms in determining the appropriate diagnostic protocol and tailoring the examination to the needs of the patient.
  - 1.3.2 Performs the examination under appropriate supervision, as defined by the procedure.
  - 1.3.3 Uses professional judgment to adapt the protocol and consults appropriate medical personnel, when necessary, to optimize examination results.
  - 1.3.4 Confers with the supervising physician, when appropriate, to determine if intravenous contrast is necessary to enhance image quality and obtain additional diagnostic information.
  - 1.3.5 With appropriate education and training, uses proper technique for intravenous line insertion and administers intravenous contrast according to facility protocol.

**STANDARD – IMPLEMENTATION OF THE PROTOCOL:**

---

- 1.4** Quality patient care is provided through the safe and accurate implementation of a deliberate protocol. The diagnostic medical sonographer:
- 1.4.1 Implements a protocol that falls within established procedures.
  - 1.4.2 Elicits the cooperation of the patient to carry out the protocol.
  - 1.4.3 Adapts the protocol according to the patient's disease process or condition.
  - 1.4.4 Adapts the protocol, as required, according to the physical circumstances under which the examination must be performed (e.g., operating room, sonography laboratory, patient's bedside, emergency room, etc.).
  - 1.4.5 Monitors the patient's physical and mental status.
  - 1.4.6 Adapts the protocol according to changes in the patient's clinical status during the examination.
  - 1.4.7 Administers first aid or provides life support in emergency situations.

- 1.4.8 Performs basic patient care tasks, as needed.
- 1.4.9 Recognizes sonographic characteristics of normal and abnormal tissues, structures, and blood flow; adapts protocol as appropriate to further assess findings; adjusts scanning technique to optimize image quality and diagnostic information.
- 1.4.10 Analyzes sonographic findings throughout the course of the examination so that a comprehensive examination is completed and sufficient data is provided to the supervising physician to direct patient management and render a final interpretation.
- 1.4.11 Performs measurements and calculations according to facility protocol.

---

**STANDARD – EVALUATION OF THE DIAGNOSTIC EXAMINATION RESULTS:**

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- 1.5** Careful evaluation of examination results in the context of the protocol is important to determine whether the goals have been met. The diagnostic medical sonographer:
  - 1.5.1 Establishes that the examination, as performed, complies with applicable protocols and guidelines.
  - 1.5.2 Identifies and documents any limitations to the examination.
  - 1.5.3 Initiates additional scanning techniques or procedures (e.g., administering contrast agents) when indicated.
  - 1.5.4 Notifies supervising physician when immediate medical attention is necessary, based on examination findings and patient condition.

---

**STANDARD – DOCUMENTATION:**

---

- 1.6** Clear and precise documentation is necessary for continuity of care, accuracy of care, and quality assurance. The diagnostic medical sonographer:
  - 1.6.1 Provides timely, accurate, concise, and complete documentation.
  - 1.6.2 Provides an oral or written summary of findings to the supervising physician.

## **SECTION 2**

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**STANDARD – IMPLEMENT QUALITY IMPROVEMENT PROGRAMS:**

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- 2.1** Participation in quality improvement programs is imperative. The diagnostic medical sonographer:
  - 2.1.1 Maintains a safe environment for patients and staff.

- 2.1.2 Performs quality improvement procedures to determine that equipment operates at optimal levels and to promote patient safety.
- 2.1.3 Participates in quality improvement programs that evaluate technical quality of images, completeness of examinations, and adherence to protocols.
- 2.1.4 Compares facility quality improvement standards to external metrics, such as accreditation criteria, evidence based literature, or accepted guidelines.

---

**STANDARD - QUALITY OF CARE:**

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- 2.2 All patients expect and deserve optimal care. The diagnostic medical sonographer:
  - 2.2.1 Works in partnership with other healthcare professionals.
  - 2.2.2 Reports adverse events.

**SECTION 3**

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**STANDARD – SELF-ASSESSMENT:**

---

- 3.1 Self-assessment is an essential component in professional growth and development. Self-assessment involves evaluation of personal performance, knowledge, and skills.
  - 3.1.1 Recognizes strengths and uses them to benefit patients, coworkers, and the profession.
  - 3.1.2 Recognizes weaknesses and limitations and performs procedures only after receiving appropriate education and supervised clinical experience in any deficient areas.

---

**STANDARD – EDUCATION:**

---

- 3.2 Advancements in medical science and technology occur very rapidly, requiring an on-going commitment to professional education. The diagnostic medical sonographer:
  - 3.2.1 Obtains and maintains appropriate professional certification/credential in areas of clinical practice.
  - 3.2.2 Recognizes and takes advantage of opportunities for educational and professional growth.

---

**STANDARD – COLLABORATION:**

---

- 3.3 Quality patient care is provided when all members of the healthcare team communicate and collaborate efficiently. The diagnostic medical sonographer:
  - 3.3.1 Promotes a positive and collaborative atmosphere with members of the healthcare team.

- 3.3.2 Communicates effectively with members of the healthcare team regarding the welfare of the patient.
- 3.3.3 Shares knowledge and expertise with colleagues, patients, students, and members of the healthcare team.

## SECTION 4

### STANDARD – ETHICS:

---

- 4.1 All decisions made and actions taken on behalf of the patient adhere to ethical standards. The diagnostic medical sonographer:
  - 4.1.1 Adheres to accepted professional ethical standards.
  - 4.1.2 Is accountable for professional judgments and decisions.
  - 4.1.3 Provides patient care with equal respect for all.
  - 4.1.4 Respects and promotes patient rights, provides patient care with respect for patient dignity and needs, and acts as a patient advocate.
  - 4.1.5 Does not perform sonographic procedures without a medical indication, except in educational activities.
  - 4.1.6 Adheres to this scope of practice and other related professional documents.



## APPENDIX A. GLOSSARY

For purposes of this document, the following definition of terms applies:

**ALARA:** an acronym for *As Low As Reasonably Achievable*, the fundamental principle for the safe use of diagnostic medical ultrasound is to use the lowest output power and the shortest scan time consistent with acquiring the required diagnostic information.

**Certification:** Designates that an individual has demonstrated through successful completion of a specialty certification examination the requisite knowledge, skills, and competencies and met other requirements established by a sonography credentialing organization. Certification also is intended to measure or enhance continued competence through recertification or renewal requirements.

**Credential:** Means the recognition awarded to an individual who has met the initial (and continuing) knowledge, skills, and competencies requirements of a sonography credentialing organization.

**Education:** The process undertaken to gain knowledge of facts, principles, and concepts. Education encourages problem solving, critical thinking, and application of the facts, principles, and concepts learned.

**Examination:** One or more sonographic or related procedures performed to obtain diagnostic information that aids in the verification of health or identification of disease or abnormality.

**Interpreting Physician:** The physician (e.g., radiologist, cardiologist, gynecologist, obstetrician, vascular surgeon, etc.) who evaluates the results of the diagnostic examination and provides the final report of the findings that is included in the patient's medical record.

**Procedure:** A specific action or course of action to obtain specific diagnostic information; often associated with a reimbursement procedure code.

**Protocol:** A written, standardized series of steps that are used to acquire data when performing a diagnostic sonographic examination and its associated procedures.

**Referring Physician:** A physician who orders a diagnostic examination or refers the patient to a specialized facility for a diagnostic examination. In some clinical environments, the referring and supervising physician may be the same person.

**Sonography Credentialing Organization:** An organization that is accredited by National Commission of Certifying Agencies (NCCA) or the American National Standards Institute - International Organization for Standardization (ANSI - ISO) that awards sonography credentials upon successful completion of competency-based certification examination(s). Also known as a sonography "registry."

**Supervising Physician:** A physician who provides overall medical direction of the sonographer but whose physical presence may not necessarily be required during the performance of a diagnostic examination. The supervising physician is available to review examination procedures and to offer direction and feedback. In some clinical environments, the supervising and interpreting physician may be the same person.

**Training:** The successful completion of didactic and clinical education necessary to properly perform a procedure in accordance with accepted practice standards. While closely related to education, training is undertaken to gain a specific skill.

## Appendix 6: New Hampshire

**TITLE XXX  
OCCUPATIONS AND PROFESSIONS CHAPTER 328-J  
MEDICAL IMAGING AND RADIATION THERAPY**

<http://www.gencourt.state.nh.us/rsa/html/NHTOC/NHTOC-XXX-328-J.htm>

### Section 328-J:1

#### **328-J:1 Definitions. –**

In this chapter:

- I. "Board" means the board of medical imaging and radiation therapy.
- II. "Certification organization" means a national certification organization that specializes in the certification and registration of medical imaging and radiation therapy technical personnel that is accredited by the National Commission for Certifying Agencies, American National Standards Institute, the International Organization for Standardization, or other accreditation organization recognized by the board.
- III. "Computed tomography" means the process of producing sectional and three-dimensional images using external ionizing radiation.
- IV. "Fluoroscopy" means the exposure of a patient to ionizing radiation in a fluoroscopy mode, including the positions of the patient, positioning of the fluoroscopy equipment, and the selection of exposure factors.
- V. "Licensed practitioner" means a person licensed to practice medicine, dentistry, chiropractic, podiatry, or osteopathy in New Hampshire.
- VI. "Limited x-ray machine operator" means a person who is licensed under this chapter to perform, under the supervision of a licensed practitioner, limited diagnostic radiography procedures of specific parts of human anatomy or bone density measurements using equipment that emits external ionizing radiation.
- VII. "Magnetic resonance technologist" means a person who is licensed under this chapter to perform magnetic resonance procedures using magnetic fields and radio frequency signals.
- VIII. "Medical imaging" means any procedure intended for use in the diagnosis or visualization of disease or other medical conditions in human beings, including, but not limited to the following modalities, radiography, nuclear medicine, fluoroscopy, magnetic resonance, and other procedures using ionizing radiation, magnetic resonance, or ultrasound.
- IX. "Medical imaging professional" means any person who is a magnetic resonance technologist, nuclear medicine technologist, radiographer, radiologist assistant, or sonographer licensed under this chapter.
- X. "Nuclear medicine technologist" means a person who is licensed under this chapter to perform a variety of nuclear medicine and molecular imaging procedures using sealed and unsealed radiation sources, ionizing and nonionizing radiation, and adjunctive medicine and therapeutic procedures using unsealed radioactive sources.
- XI. "Radiation therapist" means a person who is licensed under this chapter to administer

ionizing radiation to human beings for therapeutic purposes.

XII. "Radiographer" means a person who is licensed under this chapter to perform a comprehensive set of diagnostic radiographic procedures using external ionizing radiation to produce radiographic, fluoroscopic, or digital images.

XIII. "Radiologist" means a physician certified by or board-eligible to be certified for the American Board of Radiology, the American Osteopathic Board of Radiology, the British Royal College of Radiology, or the Canadian College of Physicians and Surgeons in that medical specialty.

XIV. "Radiologist assistant" means a radiographer who has met additional qualifications and who is licensed under this chapter to perform a variety of activities under the supervision of a radiologist in the areas of patient care, patient management, radiologic imaging, or interventional procedures guided by radiologic imaging.

XV. "Sonographer" means a person who is licensed under this chapter to perform a comprehensive set of diagnostic sonography procedures using ultrasound to create medical images.

**Source.** 2016, 54:2, eff. July 1, 2016.

### **Section 328-J:2**

**328-J:2 Purpose.** – This chapter is intended to safeguard the life and health of the people of New Hampshire by ensuring the standardized training of limited x-ray machine operators, medical imaging professionals, and radiation therapists in anatomy, patient positioning, examination and treatment techniques, equipment protocols, radiation safety, radiation protection, and basic patient care.

**Source.** 2016, 54:2, eff. July 1, 2016.

### **Section 328-J:8**

**328-J:8 Educational Qualifications.** – The board shall approve medical imaging and radiation therapy educational programs that the board determines meet the criteria and standards established by the board. The curriculum for each course of study shall be no less stringent than the standards approved by the Joint Review Committee on Education in Radiologic Technology, Joint Review Committee on Education in Nuclear Medicine Technology, Commission on Accreditation of Allied Health Education Programs, or any other appropriate educational accreditation agency approved by the board.

**Source.** 2016, 54:2, eff. July 1, 2016.

### **Section 328-J:9**

**328-J:9 Temporary Suspension Where Imminent Threat.** – In cases involving imminent danger to life or health, the board may order suspension of a license pending hearing for a period of no more than 120 days. In such cases, the basis for the board's finding of imminent danger to life or health shall be reduced to writing and combined with a hearing notice which complies

with RSA 328-J:18, I. A licensee may be allowed additional time to prepare for a hearing, but any additional time for preparation shall result in an extension of the license suspension commensurate with the additional time extended.

**Source.** 2016, 54:2, eff. July 1, 2016.

**328-J:10 License Required.** – Beginning July 31, 2018, no person shall perform medical imaging or administer radiation therapy procedures on humans for diagnostic or therapeutic purposes as defined in this chapter or otherwise indicate or imply that the person is licensed to perform medical imaging procedures or administer radiation therapy unless that person is currently licensed under this chapter.

**Source.** 2016, 54:2, eff. July 1, 2016. 2017, 11:1, eff. Apr. 17, 2017.

## **CHAPTER 328-J**

### **MEDICAL IMAGING AND RADIATION THERAPY**

#### **Section 328-J:11**

**328-J:11 Licensure; Medical Imaging Professionals and Radiation Therapists.** –

The board shall issue licenses to individuals who meet the following qualifications:

I. Limited x-ray machine operator license. To qualify for a license as a limited x-ray machine operator, an applicant shall meet the following requirements:

- (a) Be at least 18 years of age;
- (b) Have obtained a high school diploma or have passed an approved equivalency test;
- (c) Successfully complete a course of study in limited x-ray machine operation approved by the board; and
- (d) Pass an examination in limited x-ray machine operation approved by the board. To assess an applicant's competence in limited x-ray machine operation the board may use:
  - (1) The American Registry of Radiologic Technologist limited x-ray machine operator examination for limited bone density, chest, extremities, podiatric, skull/sinus, and podiatric radiography;
  - (2) The American Chiropractic Registry of Radiologic Technologists examination in spine radiography;
  - (3) The American Society of Podiatric Medical Assistants examination in podiatric radiography;
  - (4) The International Society for Clinical Densitometry examination in clinical bone densitometry technology; or
  - (5) A certification organization recognized by the board.

II. Magnetic resonance technologist license. To qualify for a license as a magnetic resonance technologist, an applicant shall meet the following requirements:

- (a) Be at least 18 years of age;
- (b) Have obtained a high school diploma or have passed an approved equivalency test;
- (c) Successfully complete a course of study in radiography and additional educational requirements in magnetic resonance technology approved by the board; and
- (d) Possess current certification and registration in radiography from the American Registry of

Radiologic Technologists or current certification and registration in magnetic resonance from the American Registry of Radiologic Technologists or a certification organization approved by the board.

(e) By January 1, 2020, all applicants for a magnetic resonance technologist license shall be certified in magnetic resonance by the American Registry of Radiologic Technologists or a certification organization recognized by the board.

III. Nuclear medicine technologist license. To qualify for a license as a nuclear medicine technologist, an applicant shall meet the following requirements:

(a) Be at least 18 years of age;  
(b) Have obtained a high school diploma or have passed an approved equivalency test;  
(c) Successfully complete a course of study in nuclear medicine technology approved by the board; and

(d) Possess current certification and registration in nuclear medicine technology from the American Registry of Radiologic Technologists, Nuclear Medicine Technology Certification Board, or a certification organization recognized by the board.

IV. Radiation therapist license. To qualify for a license as a radiation therapist, an applicant shall meet the following requirements:

(a) Be at least 18 years of age;  
(b) Have obtained a high school diploma or have passed an approved equivalency test;  
(c) Successfully complete a course of study in radiation therapy approved by the board; and  
(d) Possess current certification and registration in radiation therapy from the American Registry of Radiologic Technologists or a certification organization recognized by the board.

V. Radiographer license. To qualify for a license as a radiographer, an applicant shall meet the following requirements:

(a) Be at least 18 years of age;  
(b) Have obtained a high school diploma or have passed an approved equivalency test;  
(c) Successfully complete a course of study in radiography approved by the board; and  
(d) Possess current certification and registration in radiography from the American Registry of Radiologic Technologists or a certification organization approved by the board.

VI. Radiologist assistant license. To qualify for a license as a radiologist assistant, an applicant shall meet the following requirements:

(a) Possess a radiographer license and current certification and registration in radiography from the American Registry of Radiologic Technologists or a certification organization approved by the board;  
(b) Possess current certification and registration as a radiologist assistant or radiology practitioner assistant from the American Registry of Radiologic Technologists, Certification Board of Radiology Physician Assistants or a certification organization approved by the board; and  
(c) Submit to the board clinical protocols signed by the supervising radiologist specifying procedures that are performed by the radiologist assistant, levels of radiologist supervision, and locations of practice designated by the supervising radiologist. Updated protocols shall be submitted biannually consistent with license renewal. The radiologist assistant scope of practice shall be consistent with the most recent version of the Radiologist Assistant Practice Standards published by the American Society of Radiologic Technologists.

VII. Sonographer license. To qualify for a license as a sonographer, an applicant shall meet the following requirements:

- (a) Be at least 18 years of age;
- (b) Have obtained a high school diploma or have passed an approved equivalency test;
- (c) Successfully complete a course of study in sonography approved by the board; and
- (d) Possess current certification and registration in sonography from the American Registry of Radiologic Technologists, American Registry of Diagnostic Medical Sonography, Cardiovascular Credentialing International, or a certification organization approved by the board.

**Source.** 2016, 54:2, eff. July 1, 2016.

## **Section 328-J:12**

### **328-J:12 Scope of Practice; Limitations. –**

- I. A person holding a license under this chapter may use radioactive substances, equipment emitting ionizing radiation, magnetic resonance, or ultrasound for medical imaging or radiation therapy procedures on humans for diagnostic or therapeutic purposes only by prescription of an individual authorized by the state to prescribe medical imaging or radiation therapy procedures and under the supervision of a licensed practitioner.
- II. A person holding a license under this chapter may use radioactive substances or equipment emitting ionizing radiation, magnetic resonance, or ultrasound for medical imaging and radiation therapy procedures on humans for diagnostic or therapeutic purposes only within the scope of that license as specified in this chapter and under the rules adopted by the board.
- III. Persons licensed as limited x-ray machine operators shall perform tasks only within the scope of the specific permit issued to them by the board and under the direct supervision of a licensed practitioner or licensed radiographer for a particular area of the human anatomy as provided in the chapter and shall not perform computed tomography, fluoroscopy, magnetic resonance imaging, mammography, radiation therapy, sonography, mobile imaging procedures, or imaging procedures using contrast media.
- IV. Individuals licensed as a radiologist assistant shall not interpret images, make diagnoses, or prescribe medications or therapies.

**Source.** 2016, 54:2, eff. July 1, 2016.

## **Section 328-J:13**

### **328-J:13 Applications; Temporary License. –**

- I. Applications for licensure or for a temporary license shall be on forms prescribed and furnished by the board, shall contain statements made under oath, showing the applicant's education and a detailed summary of the applicant's technical work. The board shall establish fees for application and any examination required under this chapter. If the board denies the issuance of a license or a temporary permit to any applicant, any initial fee deposited shall be retained as an application fee.
- II. The board may issue a temporary license to any person whose certification and registration is pending or when issuance is for the purpose of providing medical imaging or radiation therapy services to medically underserved areas as determined by the board. A temporary license shall be issued only if the board finds that it will not violate the purpose of this chapter or endanger the public health and safety. A temporary license shall expire 90 days after the date of the next

examination if the applicant is required to take an examination. If the applicant does not take the examination on the scheduled date, the temporary license shall expire. In all other cases, a temporary license shall expire when the determination is made either to issue or deny the applicant a regular license. A temporary license shall not be issued for a period longer than 180 days.

III. New graduates awaiting national certification and registration may be issued a temporary license for employment purposes for a period not to exceed one year.

IV. Any person issued a license under this chapter shall display the official license document or a verified copy in each place of regular employment.

**Source.** 2016, 54:2, eff. July 1, 2016.

### **Section 328-J:14**

**328-J:14 Educational Programs.** – All educational programs approved by the board in radiography, radiation therapy, nuclear medicine technology, magnetic resonance technology, sonography, radiologist assistant or limited x-ray machine operation may be offered by a medical facility or educational institution. The program shall be affiliated with one or more hospitals or clinics approved by the board to provide the requisite clinical education.

**Source.** 2016, 54:2, eff. July 1, 2016.

### **Section 328-J:15**

#### **328-J:15 License Renewal; Continuing Education.** –

I. The board shall send, by mail or otherwise, notification of the impending license expiration to each licensee at least 2 months prior to the expiration of the license, along with a request for payment of a renewal fee. Licensees in good standing may renew their licenses by paying the renewal fee prior to the expiration date of the license, and by presenting evidence satisfactory to the board of completion of the continuing education requirements. If properly renewed, a license shall remain in effect continuously from the date of issuance, unless suspended or revoked by the board for just cause.

II. All licenses issued by the board shall expire on the last day of the licensee's month of birth in the second year following the year of issuance, or upon such other biennial date as the board may adopt. If the renewal fee is not submitted within 12 months after the expiration date, the licensee's name shall be removed from current status, and application for reinstatement shall be required to return to current status. The board shall charge a 20 percent late fee for each month or fraction of a month the renewal is late, up to 12 months, in addition to the renewal fee. Any renewal application received 12 months after the expiration date shall be rejected, unless accompanied by proof of successful completion of the examination required by the board. Licensees shall complete at least 24 hours of board-approved continuing education during each license period in order to maintain his or her license. If a licensee fails to renew such license within the 12 months after the date of expiration, it shall become null and void and the licensee shall be required to reapply and to be re-examined for licensure.

III. Licensees who have been activated by the military shall be exempt from any penalties or fees for renewal or reinstatement due to their absence, as approved by the board.

Source. 2016, 54:2, eff. July 1, 2016.

### **Section 328-J:16**

**328-J:16 Notification of Changes.** – Licensees shall notify the board in writing within 30 days after a name or address change.

Source. 2016, 54:2, eff. July 1, 2016.

### **Section 328-J:18**

#### **328-J:18 Hearings.** –

I. The board shall take no disciplinary action without a hearing. At least 14 days prior to hearing, both parties to a disciplinary proceeding shall be served, either personally or by certified mail, return receipt requested, with a written copy of the complaint filed and notice of the time and place for hearing. All complaints shall be objectively received and appropriately pursued by the board. Written complaints received by the board shall be acknowledged within 3 months of the date of notice to the board. Written notice of all disciplinary decisions made by the board shall be given to both parties to the proceeding upon their issuance.

II. The board shall have the power to administer oaths or affirmations, preserve testimony, subpoena witnesses, and to compel, by subpoena duces tecum, the production of all books, records, files and documents, whether originals, copies, or in electronic or other form, and other materials, relevant to its investigation of any grievance, complaint, or disciplinary proceeding before the board.

(a) The board may issue subpoenas with the approval of the office of the attorney general.

(b) A minimum of 10 business days' notice shall be given for compliance with a subpoena under this chapter.

III. At any hearing, the named person or licensee shall have the right to:

(a) Appear in person, by counsel, or both.

(b) Produce evidence and witnesses.

(c) Cross-examine witnesses.

IV. If the named person fails or refuses to appear, the board may proceed to hear and determine the validity of the charges.

V. Any disciplinary action by the board shall be published in the report of the board and shall be a public record in accordance with RSA 91-A.

Source. 2016, 54:2, eff. July 1, 2016.

### **Section 328-J:21**

**328-J:21 Injunctive Relief.** – The board is hereby authorized to apply in its own name for relief by injunction to the superior court, to enforce the provisions of this chapter or to restrain any violation of the provisions of this chapter. In such proceedings, it shall be unnecessary to allege or to prove that either an adequate remedy at law does not exist or that substantial or irreparable damage would result from any continued violation. The members of the board shall not be personally liable under these proceedings.



**Source.** 2016, 54:2, eff. July 1, 2016.

### **Section 328-J:22**

#### **328-J:22 Grandfather Provision. –**

Persons who have been engaged in the practice of medical imaging or radiation therapy, other than a radiologist assistant, who do not hold a current certification and registration from a certification organization approved by the board may continue to practice in the modality of medical imaging or radiation therapy in which they are currently employed provided that they:

- I. Register with the board on or before July 31, 2018.
- II. Do not change the scope of their current practice.
- III. Complete all continuing education requirements for their area of practice biannually as prescribed by the board.
- IV. Practice only under the supervision of a licensed practitioner, and
- V. Obtain a license from the board on or before January 1, 2020.

**Source.** 2016, 54:2, eff. July 1, 2016. 2017, 11:2, eff. Apr. 17, 2017.

### **Section 328-J:23**

**328-J:23 Investigative Costs. –** For any order issued in resolution of a disciplinary proceeding by the board, where the board has found misconduct sufficient to support disciplinary action, including but not limited to a violation of this chapter or an administrative rule adopted under this chapter, the board may require the registrant who is the subject of such finding to pay the board a sum not to exceed the reasonable cost of investigation and prosecution of the proceeding. This sum shall not exceed \$5,000. This sum may be imposed in addition to any otherwise authorized administrative fines levied by the board as part of the penalty. The investigative and prosecution costs shall be assessed by the board and any sums recovered shall be credited to the board's fund and disbursed by the board for any future investigations of complaints and activities that violate this chapter or rules adopted under this chapter.

**Source.** 2016, 54:2, eff. July 1, 2016.

### **Section 328-J:25**

#### **328-J:25 Exemptions. –**

Nothing in this chapter shall be construed to prevent or affect:

- I. A licensed practitioner performing medical imaging or radiation therapy procedures within his or her scope of practice, education, training, and competence.
- II. A registered dental hygienist licensed under the laws of the state of New Hampshire performing dental imaging procedures within his or her scope of practice, education, training, and competence and under the supervision of a dentist licensed under the laws of the state of New Hampshire.
- III. A dental assistant licensed or holding a certificate under the laws of the state of New Hampshire performing dental imaging procedures within his or her scope of practice, education, training, and competence and under the supervision of a dentist licensed under the laws of the

state of New Hampshire.

IV. A resident physician or a student enrolled in and attending a school or college of medicine, dentistry, osteopathy, chiropractic, podiatry, limited x-ray machine operator, medical imaging, or radiation therapy who performs medical imaging or radiation therapy procedures on humans while under the supervision of a licensed practitioner or a person holding a license under this chapter in the supervised modality.

V. A person administering medical imaging or radiation procedures who is employed by the United States government when performing duties associated with that employment.

VI. A person licensed under the laws of the state of New Hampshire performing a sonography procedure within his or her scope of practice, education, training, and competence, that is used to assess specific and limited information about a patient's immediate medical condition, is limited to a focused imaging target and does not generate a recorded diagnostic medical image. A focused imaging target includes, but is not limited to:

- (a) Assessment of fetal presentation or heartbeat;
- (b) Assessment of fluid in a body cavity;
- (c) Assessment of foreign body position or location;
- (d) Fetal monitoring during active labor; or
- (e) Identification of an anatomical landmark or blood vessel for vascular access or administration of anesthesia.

VII. A person performing medical procedures or therapy on non-human subjects or cadavers.

VIII. A person licensed under the laws of the state of New Hampshire performing a medical procedure using ultrasound for a non-imaging purpose that is within his or her scope of practice, education, training, and competence.

IX. A person licensed to perform a medical imaging or radiation therapy modality, who is performing clinical procedures under the supervision of a licensed practitioner or a person holding a license under this chapter in the supervised modality, in preparation for certification in an additional medical imaging or radiation therapy modality. To receive this exemption, the person shall register with the board and meet the requirements as specified in this chapter and under the rules adopted by the board. The board may grant this exemption for a period not to exceed 3 years and the exemption may be renewed by the board.

**Source.** 2016, 54:2, eff. July 1, 2016. 2017, 217:1, eff. Sept. 8, 2017.

2018 SEP 12 PM 2: 31

**TITLE 20 ENVIRONMENTAL PROTECTION**  
**CHAPTER 3 RADIATION PROTECTION**  
**PART 20 MEDICAL IMAGING AND RADIATION THERAPY LICENSURE**

**20.3.20.1 ISSUING AGENCY:** Environmental Improvement Board.  
[20.3.20.1 NMAC - Rp, 20.3.20.1 NMAC, 09/25/2018]

**20.3.20.2 SCOPE:** All individuals engaged in the practice of medical imaging and radiation therapy.  
[20.3.20.2 NMAC - Rp, 20.3.20.2 NMAC, 09/25/2018]

**20.3.20.3 STATUTORY AUTHORITY:** Medical Imaging and Radiation Therapy Health and Safety Act, Sections 61-14E-1 to 61-14E-12 NMSA 1978, Section 74-1-8 NMSA 1978, and the Uniform Licensing Act, Sections 61-1-1 to 61-1-34 NMSA 1978.  
[20.3.20.3 NMAC - Rp, 20.3.30.3 NMAC, 09/25/2018]

**20.3.20.4 DURATION:** Permanent.  
[20.3.20.4 NMAC - Rp, 20.3.20.4 NMAC, 09/25/2018]

**20.3.20.5 EFFECTIVE DATE:** September 25, 2018, unless a later date is cited at the end of a section.  
[20.3.20.5 NMAC - Rp, 20.3.20.5 NMAC, 09/25/2018]

**20.3.20.6 OBJECTIVE:** To maximize the protection practicable for the citizens of New Mexico from ionizing and non-ionizing radiation in the practice of medical imaging and radiation therapy by establishing requirements for appropriate education and training of individuals operating medical equipment emitting ionizing and non-ionizing radiation, establishing standards of education and training for the individuals who perform medical imaging and radiation therapy procedures, and providing for the appropriate examination and licensure of those individuals.  
[20.3.20.6 NMAC - Rp 20.3.20.6 NMAC, 09/25/2018]

**20.3.20.7 DEFINITIONS:** As used in this part (20.3.20 NMAC).

A. "Act" means the Medical Imaging and Radiation Therapy Health and Safety Act, Sections 61-14E-1 to 61-14E-12 NMSA 1978.

B. "Advisory council" means the medical imaging and radiation therapy advisory council (MIRTAC).

C. "Applying ionizing radiation" means to use ionizing radiation for diagnostic or therapeutic purposes, including tasks having direct impact on the radiation burden of the patient, such as, but not limited to:

- (1) positioning the patient, image receptor, and beam;
- (2) selection of exposure factors or treatment parameters;
- (3) preparation, calibration, and injection of pharmaceuticals and radiopharmaceuticals in accordance with a licensee's scope of practice; and
- (4) actuating the production of radiation.

D. "Approved program" means a medical imaging or radiation therapy educational program that meets the requirements of 20.3.20.200 NMAC.

E. "Biennial licensure fee" means the licensure fee for an initial, renewal, and limited radiography license, excluding the temporary license, for a period up to 24 months, and is only applied once per continuing medical education biennium period regardless of the number of licenses granted to that registrant. This fee will be assessed each time a registrant submits an application packet to the department. Upon written request to the department, the registrant may reduce their NM biennium period to match their national continuing medical education biennium period.

F. "Board" means the environmental improvement board.

G. "Cardiac sonography" or "echocardiography" means an examination using ultrasound to generate an image of the heart or major blood vessels.

H. "Category A" means a continuing education activity approved for category A credit by an organization recognized by the American registry of radiologic technologists as a recognized continuing education evaluation mechanism.

**I.** "Certificate of licensure" means a document issued by the department that lists the type or types of license granted to an individual.

**J.** "Certificate of limited practice" or "limited practice of radiography license" means a limited license granted by the department to an individual other than a licensed practitioner or radiographer who performs restricted diagnostic radiography procedures under the direct supervision of a licensed practitioner or radiographer on designated anatomical sites or limited anatomical areas.

**K.** "Certified nurse practitioner" means a person licensed pursuant to Section 61-3-23.2 NMSA 1978.

**L.** "Chest and thorax" or "viscera of the thorax" means radiographic examinations of the ribs and lungs, including anteroposterior, posterior-anterior, lateral, and apical lordotic views, but does not include mammography.

**M.** "Clinical instruction" means hands-on educational experience in a health care setting such as a hospital, clinic, or physician's office, under the supervision requirements consistent with the standards of the program's accrediting agencies.

**N.** "Continuing education" (CE) or "continuing medical education" (CME) means a learning activity that is planned, organized, and administered to enhance the professional knowledge and skill of the licensee.

**O.** "Credential" or "certification" means the recognition awarded to an individual who meets the initial and ongoing requirements of a credentialing or certification organization.

**P.** "Credentialing organization" or "certification organization" means an organization accredited by the national commission for certifying agencies or the American national standards institute and recognized by the board that issues credentials through testing or evaluation and determines that an individual has met defined standards for training and competence in a medical imaging or radiation therapy modality and subspecialty.

**Q.** "Department" means the New Mexico environment department.

**R.** "Diagnostic medical sonographer" means a person, including a vascular technologist or echocardiographer, other than a licensed practitioner, who provides patient care services using ultrasound;

**S.** "Diagnostic medical sonography" or "sonogram" means the use of ultrasound and sonographic equipment to create medical images for interpretation by a licensed practitioner or other qualified health care practitioner that provide diagnostic information about a patient's medical condition and includes obstetrical ultrasound. Obstetrical ultrasound means an ultrasound exam performed for the purpose of fetal biometry beyond the first trimester, fetal number, anatomic survey, or follow-up examination for a known or suspected anomaly or growth disturbance. It does not mean a procedure using ultrasound on a focused imaging target to assess specific and limited information about a patient's immediate medical condition or to provide real-time visual guidance for another procedure.

**T.** "Didactic instruction" means academic instruction.

**U.** "Duplicate certificate of licensure" means an additional original certificate of licensure issued by the department.

**V.** "Extremities" means the fingers, hand, wrist, radius/ulna, elbow, humerus, pectoral girdle (shoulder joint and clavicle), toes, foot, ankle, calcaneus, tibia/fibula, patella, knee, or distal femur, but does not include the skull, spine, hip, or pelvis.

**W.** "Facility" means a hospital, clinic, medical office, mobile lab, or other location where medical imaging or radiation therapy is provided.

**X.** "Focused imaging target" means a discrete anatomical target, to which ultrasound is applied to create an image for assessment of specific and limited information about a patient's immediate medical condition, or to provide visual guidance for another procedure. An ultrasound procedure on a focused imaging target does not supplant a diagnostic ultrasound examination.

**Y.** "General sonography" means an examination using ultrasound to create an image of the abdomen, chest, pelvis, pregnant uterus, small parts, or superficial structures.

**Z.** "Interventional" means to diagnose or treat patients using medical imaging devices. Interventional procedures may include, but are not limited to: radiation therapy, organ biopsy, angiography, angioplasty, and catheter delivered stents. Interventional does not mean needle or catheter placement for vascular access or delivery of medicine or anesthesia, or the use of non-ionizing energy for non-imaging therapeutic or treatment purposes.

**AA.** "Ionizing radiation" means gamma rays and x-rays, alpha and beta particles, high speed electrons, neutrons, protons, and other nuclear particles; but not ultrasound, sound, or radio waves, nor visible, infrared or ultraviolet light.

**AB.** "License" means a grant of authority issued by the department for an individual to perform medical imaging or radiation therapy procedures.

**AC.** “License term” means a length of licensure as indicated on the certificate of licensure issued by the department.

**AD.** “Licensed practitioner” means an individual licensed to practice medicine, dentistry, podiatry, chiropractic or osteopathy in this state.

**AE.** “Licensee” means an individual who has met and continues to meet all requirements of the act and this part.

**AF.** “Licensure” means the grant of authority by the department for an individual to perform medical imaging or radiation therapy procedures.

**AG.** “Limited practice radiography technologist” means an individual who has been granted a limited practice in radiography license by the department to perform restricted diagnostic radiography procedures under the direct supervision of a licensed practitioner or radiographer.

**AH.** “Lower leg” means the knee and ankle and portions of the leg between the knee and ankle.

**AI.** “Magnetic resonance imaging” means an examination using magnetic fields and radio frequency signals to generate an image.

**AJ.** “Magnetic resonance technologist” means an individual other than a licensed practitioner who performs magnetic resonance imaging procedures under the supervision of a licensed practitioner using magnetic fields and radio frequency signals.

**AK.** “Medical imaging” means the use of substances or equipment emitting ionizing or non-ionizing radiation on humans for diagnostic or interventional purposes.

**AL.** “Medical imaging professional” means an individual who has been granted a license by the department pursuant to the act in at least one medical imaging modality.

**AM.** “Modality” means the following medical imaging procedures or technologies:

- (1) diagnostic medical sonography and all of its subspecialties;
- (2) magnetic resonance imaging and all of its subspecialties;
- (3) nuclear medicine technology and all of its subspecialties;
- (4) radiation therapy and all of its subspecialties; and
- (5) radiography and all of its subspecialties.

**AN.** “Musculoskeletal sonography” or “musculoskeletal ultrasound” means an examination using ultrasound to generate an image of a superficial muscle, tendon, ligament, or joint.

**AO.** “Non-ionizing radiation” means the static and time-varying electric and magnetic fields and radio frequency, including microwave radiation and ultrasound.

**AP.** “Nuclear medicine technologist” means an individual, other than a licensed practitioner, who performs nuclear medicine procedures, venipuncture, and compounds, calibrates, dispenses, and administers pharmaceuticals, radiopharmaceuticals, and radionuclides under the supervision of a licensed practitioner.

**AQ.** “Personal identification” means an applicant’s or licensee’s full legal name, permanent and mailing address, social security number, date of birth, home phone number, cellular telephone number, work telephone number, electronic mail address, department registration number, and other related information.

**AR.** “Phlebology” means ultrasound examination of superficial veins in the lower extremities for the identification and treatment of venous disease.

**AS.** “Physician assistant” means a person licensed and operating within their scope of practice pursuant to Section 61-6-7 or 61-10A-4 NMSA 1978.

**AT.** “Place of employment” means a location with its own physical address or separated by building structure regardless of ownership, company, nonprofit organization, or business name.

**AU.** “Podiatric” means radiographic examination of the toes, foot, ankle, calcaneus, distal tibia/fibula, but does not include the knee joint.

**AV.** “Programmatic accreditation” means a specialized accreditation process that examines the medical imaging or radiation therapy program within an educational institution.

**AW.** “Radiation therapy” means the use of high-energy particles or waves to destroy or damage cells.

**AX.** “Radiation therapy technologist” or “radiation therapist” means an individual, other than a licensed practitioner, who utilizes ionizing radiation for the planning and delivery of therapeutic procedures to humans under the supervision of a licensed practitioner.

**AY.** “Radiographer” means an individual, other than a licensed practitioner, who applies radiation to humans for diagnostic purposes under the supervision of a licensed practitioner.

**AZ.** “Radiography” means the application of radiation to humans for diagnostic purposes, including adjustment or manipulation of x-ray systems and accessories, including image receptors, positioning of patients, processing of films and any other action that materially affects the radiation dose to patients.

**BA.** “Radiologic technologist” or “radiation therapy technologist” means a medical imaging or radiation therapy professional licensed by the department in one or more of the imaging modalities.

**BB.** “Radiologist” means a licensed practitioner certified by the American board of radiology, the British royal college of radiology, the American osteopathic board of radiology or the American chiropractic board of radiology.

**BC.** “Radiologist assistant” means an individual licensed as a radiographer who holds additional certification as a registered radiologist assistant by the American registry of radiologic technologists and who works under the supervision of a radiologist; provided that a radiologist assistant shall not interpret images, render diagnoses or prescribe medications or therapies.

**BD.** “Recognized continuing education evaluation mechanism (RCEEM)” means a recognition mechanism of the ARRT for evaluating the content, quality, and integrity of a continuing education activity.

**BE.** “Registration number” means a number that is generated by the department to be used as a unique identification number in place of that individual’s social security number. This number will remain the same number throughout the individual’s lifetime.

**BF.** “Remedial education” or “remedial training” means additional education or training required for an individual to re-qualify to take a state-administered examination for the limited practice of radiography.

**BG.** “Scope of practice” means nationally recognized practice standards as applicable to each medical imaging modality and subspecialty, unless this part is superseded by the act.

**BH.** “Small parts” means superficial structures or anatomy including, but not limited to: axilla, chest or abdominal wall, penis, scrotum or testicles, thyroid, parathyroid, and other non-vascular structures of the neck or extremities.

**BI.** “Sonographer” or “echocardiographer” or “vascular technologist” means an individual other than a licensed practitioner who applies ultrasound to humans for diagnostic and interventional purposes under the supervision of a licensed practitioner.

**BJ.** “Sonography” or “ultrasound” means the use of high frequency sound waves (above 20,000 cycles per second) with specialized equipment to direct the sound waves into an area of the human body to generate an image.

**BK.** “Sonography subspecialty” means an area of specialization recognized by the board, including:

- (1) abdominal sonography;
- (2) breast sonography;
- (3) cardiac sonography;
- (4) musculoskeletal sonography;
- (5) obstetric/gynecology sonography;
- (6) phlebology sonography; and
- (7) vascular sonography.

**BL.** “Student” means an individual enrolled in and attending a school or college of medicine, osteopathy, chiropractic, podiatry, dentistry, dental hygiene, an approved program in medical imaging or radiation therapy, or an approved limited radiography program.

**BM.** “Subspecialty” means an area of specialization approved by the board within a medical imaging or radiation therapy modality.

**BN.** “Supervision” means responsibility for and control of quality, radiation safety, and protection and technical aspects of the application of ionizing and non-ionizing radiation to human beings for diagnostic or therapeutic purposes.

(1) “direct supervision” means the medical imaging or radiation therapy procedure is provided under the direction and control of a person authorized to provide supervision and the person’s physical presence must be present in the office suite or building and immediately available to furnish assistance and direction throughout the performance of the procedure. It does not mean that the supervisor must be present in the room when the procedure is performed.

(2) “indirect supervision” or “general supervision” means the medical imaging or radiation therapy procedure is provided under the direction and control of a person authorized to provide supervision, but the person’s presence is not required during the performance of the procedure. The training of the non-physician personnel and the maintenance of the necessary equipment and supplies are the continuing responsibility of the person authorized to provide supervision.

(3) student supervision requirements must be consistent with the medical imaging and radiation therapy standards of the programmatic accreditation agencies.

**BO.** "Temporary license" means a grant of authority by the department for an individual to perform medical imaging or radiation therapy procedures pursuant to the term and requirements of section 20.3.20.321 NMAC.

**BP.** "Vascular sonography" means an examination using ultrasound to generate an image of the peripheral or neck blood vessels.

**BQ.** "Viscera of the thorax" means radiographic examination of the lungs and mediastinum. [20.3.20.7 NMAC - Rp, 20.3.20.7 NMAC, 09/25/2018]

**20.3.20.8 ABBREVIATIONS AND ACRONYMS:**

- A.** "ANSI" stands for American national standards institute.
- B.** "ARDMS" stands for the American registry for diagnostic medical sonography.
- C.** "ARMRIT" stands for American registry of magnetic resonance imaging technologists.
- D.** "ARRT" stands for the American registry of radiologic technologists.
- E.** "BS" stands for breast sonography.
- F.** "CAAHEP" stands for the commission on accreditation of allied health education programs.
- G.** "CCI" stands for the cardiovascular credentialing international.
- H.** "CHEA" stands for the council of higher education accreditation.
- I.** "CNMT" stands for certified nuclear medicine technologist.
- J.** "CS" stands for cardiac sonography.
- K.** "CT" stands for computed tomography.
- L.** "DMS" stands for diagnostic medical sonography.
- M.** "FUS" stands for fusion imaging.
- N.** "JRCEDMS" stands for the joint review committee on diagnostic medical sonography.
- O.** "JRCERT" stands for the joint review committee on education in radiologic technology.
- P.** "JRCNMT" stands for the joint review committee on educational program in nuclear medicine technology.
- Q.** "LXE" stands for limited practice radiography to the extremities.
- R.** "LXP" stands for limited practice radiography to the podiatric.
- S.** "LXT" stands for limited practice radiography to the viscera of the thorax.
- T.** "LXV" stands for limited practice radiography to the axial/appendicular skeleton.
- U.** "MR" stands for magnetic resonance.
- V.** "MRT" stands for magnetic resonance technologist.
- W.** "MSK" stands for diagnostic musculoskeletal technologist.
- X.** "NCCA" stands for national commission for certifying agencies.
- Y.** "NMT" stands for nuclear medicine technologist.
- Z.** "NMTCB" stands for the nuclear medicine technologist certification board.
- AA.** "N" stands for nuclear medicine technology.
- AB.** "PBS" stands for phlebology sonography.
- AC.** "PET" stands for positron emission tomography.
- AD.** "PVL" stands for provisional license.
- AE.** "RCCS" stands for registered congenital cardiac sonographer.
- AF.** "RCS" stands for registered cardiac sonographer.
- AG.** "RDCS" stands for registered diagnostic cardiac sonographer.
- AH.** "RDMS" stands for registered diagnostic medical sonographer.
- AI.** "RMRIT" stands for magnetic resonance imaging technologist.
- AJ.** "RMSK" stands for registered in musculoskeletal sonography.
- AK.** "RPhS" stands for registered phlebology sonographer.
- AL.** "R" stands for radiography.
- AM.** "RRT" stands for radiographic radiologic technologist.
- AN.** "RRA" stands for registered radiology assistant.
- AO.** "R.T." stands for registered technologist.
- AP.** "RTT" stands for radiation therapy technologist.
- AQ.** "RVS" stands for registered vascular specialist.
- AR.** "RVT" stands for registered vascular technologist.
- AS.** "S" stands for sonography.
- AT.** "TMP" stands for temporary.



- AU. "T" stands for radiation therapy.
- AV. "USDE" stands for United States department of education.
- AW. "VS" stands for vascular sonography.

[20.3.20.8 NMAC - Rp, 20.3.20.8 NMAC; 09/25/2018]

**20.3.20.9 ADMINISTRATION AND ENFORCEMENT:** The administration and enforcement of the act and this part (20.3.20 NMAC) is vested in the department.

[20.3.20.9 NMAC - N, 09/25/2018]

**20.3.20.10 - 20.3.20.99 [RESERVED]**

**20.3.20.100 LICENSE REQUIRED:**

**A. Unlawful acts.** It is unlawful for an individual, other than an individual licensed by the department, or who is exempt under the provisions of the act, to:

- (1) use ionizing or non-ionizing radiation for diagnostic, interventional, or therapeutic purposes on humans;
- (2) use any title, abbreviation, letters, figures, signs, or other devices to indicate the individual is a medical imaging or radiation therapy professional; or
- (3) engage in any of the medical imaging or radiation therapy modalities or subspecialties.

**B. Statutory exceptions.** Pursuant to the act, a medical imaging license is not required for:

- (1) a licensed practitioner;
- (2) a student under the supervision of a licensed practitioner or under the direct supervision of a licensed medical imaging or radiation therapy professional licensed in the modality and subspecialty in which the student is performing the procedure;
- (3) a health care practitioner licensed or certified by an independent board as defined by the act that has been approved by the board as provided in Subsection C of this section; or
- (4) a registered nurse or certified nurse-midwife performing ultrasound procedures; provided that the registered nurse or certified nurse-midwife has documented demonstration of competency within the registered nurse's scope of practice in compliance with board of nursing rules or certified nurse-midwife's scope of practice in compliance with department of health rules. A registered nurse or certified nurse-midwife shall not perform diagnostic ultrasound examinations or ionizing procedures, including radiography, radiation therapy, nuclear medicine or a non-ionizing magnetic resonance procedure, unless licensed by the department as medical imaging professional or radiation therapist professional. A registered nurse or a certified nurse-midwife may perform ultrasound procedures limited to a focused imaging target. A focused imaging target includes, but is not limited to:

- (a) identification of an anatomical landmark or blood vessel;
- (b) assessment of presence or absence of fluid in a body cavity;
- (c) assessment of fetal presentation or heartbeat; or
- (d) assessment of foreign body position or location.

**C.** An independent board or state regulatory body may submit an application for approval of their medical imaging certification and examination program to the MIRTAC for review.

(1) The MIRTAC shall consider whether the medical imaging and certification examination program adequately ensures the appropriate education, training, and clinical experience while ensuring patient health and safety and shall make a written recommendation to the board.

(2) The board may approve or deny an application based on whether or not it finds adequate evidence that the certification and examination program ensures appropriate education, training, and clinical experience while ensuring health and patient safety.

(3) The independent board or state regulatory body shall reapply to the board for re-approval if substantive changes to the certification and examination program are made subsequent to the board's approval.

**D. Temporary exemption.** The department may temporarily exempt applicants from licensure requirements upon determining that:

- (1) the experience or training of the applicant is such that no apparent danger to the public exists;
- (2) the people in the area of the state to be served by the applicant would otherwise be denied adequate medical care because of the unavailability of a medical imaging or radiation therapy professional; and
- (3) each application for temporary exemption shall be supported by:

- (i) an application for temporary exemption;
- (ii) an application fee; and
- (iii) written evidence to support the applicant's compliance with Paragraph (1) and

(2) of this subsection.

**E. Temporary exemption term.** A temporary exemption approved by the board shall be for a limited period of time, not to exceed one year. A temporary exemption may be renewed if the circumstances have not changed and if deemed warranted by the department.

**F. Temporary exemption application denial.** The board, with the advice of the MIRTAC, shall resolve appeals of a denial of an application for temporary exemption pursuant to 20.3.20.600 NMAC. When making a determination of existence of community hardship, the board will:

- (1) consult health agencies;
- (2) evaluate availability of alternative medical imaging or radiation therapy services and licensed medical imaging or radiation therapy professionals; and
- (3) evaluate documentation from the applicant's employer or prospective employer to demonstrate that recruitment of qualified individuals, at competitive compensation, has been attempted and was unsuccessful. Such demonstration may take the form of:
  - (a) documented advertising in publications pertaining to medical imaging professionals;
  - (b) registration of the position with the New Mexico department of workforce solutions or similar state agency; or
  - (c) documentation of current and past contracting with medical imaging or radiation therapy job placement companies.

[20.3.20.100 NMAC - N, 09/25/2018]

**20.3.20.101 SCOPE OF PRACTICE:**

**A. General provisions.**

- (1) A licensee's scope of practice is determined based upon the licensee's education, certification, and state and federal law.
- (2) The following are the different scopes of practice for a licensee that will be recognized by the department:
  - (a) Radiography - the current version of the American society of radiologic technologists radiography practice standards;
  - (b) Radiation therapy - the current version of the American society of radiologic technologists radiation therapy practice standards;
  - (c) Nuclear medicine technology - the current version of the American society of radiologic technologists nuclear medicine practice standards or society of nuclear medicine and molecular imaging scope of practice for nuclear medicine technologist;
  - (d) Magnetic resonance technology - the current version of the American society of radiologic technologists magnetic resonance practice standards;
  - (e) Radiologist assistant - the current version of the American society of radiologic technologists radiologist assistant practice standards;
  - (f) Sonography - the current version of the American society of radiologic technologists sonography practice standards or the society of diagnostic medical sonography scope of practice and clinical standards for the diagnostic medical sonographer; or
  - (g) Limited practice of radiography license or certificate of limited practice - the current version of the American society of radiologic technologists limited x-ray machine operator practice standards.

**B. Radiologist assistant.** A radiologist assistant shall practice under the indirect supervision of a radiologist and shall not interpret images, render diagnoses, or prescribe medications or therapies.  
[20.3.20.101 NMAC - N, 09/25/2018]

**20.3.20.102 - 20.3.20.199 [RESERVED]**

**20.3.20.200 APPROVED EDUCATIONAL PROGRAMS:**

**A. Approved program for a medical imaging or radiation therapy license:** An approved program for medical imaging or radiation therapy includes:

(1) an educational program in a medical imaging or radiation therapy modality that is programmatically accredited by an accreditation agency recognized by the USDE or the CHEA and also recognized by the board pursuant to 20.3.20.220 NMAC; or

(2) an educational program in a medical imaging or radiation therapy modality that is in the process of preparing for programmatic accreditation by an accreditation agency recognized by the USDE or CHEA and also recognized by the board pursuant to 20.3.20.220 NMAC. This programmatic accreditation by an accreditation agency must be attained within five years of the effective date of this section or within five years of the establishment of a new educational program.

**B. Approved program for a limited practice in radiography license:** A limited radiography program shall be reviewed by the MIRTAC and approved by the board before enrolling students into the educational program. Prior to approval of the educational program, the MIRTAC will consider if the program includes the necessary didactic and clinical education to prepare students for the state examination for a limited practice in radiography license prior to submitting its recommendations to the board. Before enrolling students or offering courses, including clinical instruction, a limited radiography program shall submit an application to the department with supporting documentation to show compliance with this section and alignment with national educational accreditation standards. No fee is required for the application and, if all requirements are met, the department shall issue a letter to the educational program confirming compliance with this section.  
[20.3.20.200 NMAC - N, 09/25/2018]

**20.3.20.201 - 20.3.20.219 [RESERVED]**

**20.3.20.220 RECOGNIZED PROGRAMMATIC ACCREDITATION ORGANIZATIONS:**

**A. Programmatic accreditation.** To be recognized by the board, an educational program accreditation agency must:

- (1) be recognized by the USDE or CHEA; and
- (2) provide programmatic accreditation for the medical imaging or radiation therapy modality offered by the educational program.

**B. Recognized programmatic accreditation organizations.** Medical imaging or radiation therapy programmatic accreditation agencies recognized by the board include:

- (1) CAAHEP;
- (2) JRCERT; and
- (3) JRCNMT.

[20.3.20.220 NMAC - N, 09/25/2018]

**20.3.20.221 - 20.3.20.299 [RESERVED]**

**20.3.20.300 RECOGNIZED CREDENTIALING ORGANIZATIONS:** The board recognizes the following medical imaging and radiation therapy credentialing organizations in each modality defined by the act including:

**A.** diagnostic medical sonography:

- (1) ARDMS;
- (2) ARRT; or
- (3) CCI.

**B.** magnetic resonance imaging:

- (1) ARMRT; or
- (2) ARRT.

**C.** nuclear medicine:

- (1) ARRT; or
- (2) NMTCB.

**D.** radiation therapy: ARRT.

**E.** radiography: ARRT.

[20.3.20.300 NMAC - N, 09/25/2018]

**20.3.20.301 RECOGNIZED CREDENTIALS AND CERTIFICATIONS:** The board recognizes the following medical imaging and radiation therapy credentials and certifications for each type of license issued by the department:

**A.** fusion imaging- restricted to PET/CT medical imaging procedures only:

- (1) (CNMT)(NMTCB) and (CT)(NMTCB);
  - (2) R.T. (ARRT)(N) and (ARRT)(CT);
  - (3) R.T. (ARRT)(N) and (NMTCB)(CT); or
  - (4) R.T. (ARRT)(R) and (NMTCB)(PET).
- B.** cardiac sonography:
- (1) (CCI)(RCS);
  - (2) (CCI)(RCCS); or
  - (3) (ARDMS)(RDMS).
- C.** general sonography:
- (1) RDMS (ARDMS)(AB);
  - (2) RDMS (ARDMS)(BR);
  - (3) RDMS (ARDMS)(OB);
  - (4) R.T. (ARRT)(S); or
  - (5) R.T. (ARRT)(BS).
- D.** limited radiography: none.
- E.** magnetic resonance imaging:
- (1) (ARMRIT)(RMRIT); or
  - (2) R.T. (ARRT)(MR).
- F.** musculoskeletal sonography: (ARDMS)(RMSK).
- G.** nuclear medicine:
- (1) certified nuclear medicine technologist (NMTCB); or
  - (2) nuclear medicine technology R.T. (ARRT)(N).
- H.** phlebology sonography: RPhS (CCI).
- I.** radiation therapy: R.T. (ARRT)(T).
- J.** radiography: R.T. (ARRT)(R).
- K.** radiology assistant: (ARRT)(RRA).
- L.** vascular sonography:
- (1) R.T. (ARRT)(VS);
  - (2) RVS (CCI); or
  - (3) RVT(ARDMS).

[20.3.20.301 NMAC - N, 09/25/2018]

**20.3.20.302 - 20.3.20.309 [RESERVED]**

**20.3.20.310 LIMITED PRACTICE OF RADIOGRAPHY LICENSE:**

**A. Limited practice in radiography.** An individual seeking a license for the limited practice of radiography shall submit an application and applicable fee to the department, successfully complete an approved limited radiography program pursuant to Subsection B of 20.3.20.200 NMAC, and take and pass the state examination pursuant to Subsections D and E below. Individuals that are enrolled in an approved limited practice radiography program shall perform their required clinical radiography procedures under the direct supervision of a licensed physician or licensed radiographer. A licensee with a limited practice of radiography license shall perform restricted diagnostic radiography under direct supervision of a licensed practitioner limited to the following specific procedures:

- (1) the viscera of the thorax;
- (2) extremities;
- (3) radiation to humans for diagnostic purposes in the practice of dentistry;
- (4) axial/appendicular skeleton; or
- (5) the foot, ankle, or lower leg.

**B. Restrictions.** A licensee with a limited practice of radiography license may not:

- (1) perform procedures outside the areas of specialization authorized by or under the individual's license; or
- (2) perform procedures outside their scope of practice including, but not limited to procedures involving the use of contrast media, fluoroscopic equipment, mammography, computed tomography, mobile or bedside radiography, diagnostic medical sonography, magnetic resonance imaging, nuclear medicine, or radiation therapy.

**C. Emergency provision.** A person having a valid limited practice of radiography license may perform diagnostic radiography procedures outside the normal scope of a limited practice of radiography license if the person is employed in an area having a federal designation as a medically underserved area and the person with the limited practice of radiography license is confronted with an emergency situation, where, by order of a licensed practitioner, a certified nurse practitioner or a registered physician assistant, the additional diagnostic radiography procedure is deemed medically necessary for the immediate safety or health of the patient.

**D. Administration of state examinations.** The department will not offer state examinations for medical imaging and radiation therapy professionals except for a limited practice of radiography licensee pursuant to Subsection E of this section. The department may administer and grade the limited practice of radiography examinations, though at its option, the department may contract for such preparation, administration, and grading services.

**E. State examination for limited practice of radiography.** An individual seeking a license for the limited practice of radiography must pass a state examination for limited practice of radiography. To apply for the state examination, the individual must:

(1) submit an examination application with supporting documentation to the department that the individual has:

- (a) completed school through the 12th grade or has passed a high school equivalency examination; and
- (b) successfully completed an approved limited radiography program in one or more of the body areas of specialization.

(2) submit the required examination fee to the department; and

(3) successfully complete a written or computerized examination administered by the department with a minimum score of seventy-five percent on both the core section and in each attempted body area section of the examination. At its option, the department may contract for such preparation, administration, and grading services for the limited practice of radiography examinations.

**F. Failure of state examination for limited practice of radiography:**

(1) If an applicant fails to achieve seventy-five percent on either the core section or a body area specialization section of the examination, it will be considered an examination failure and the applicant must retake the failed section or sections.

(2) The applicant must re-apply and pay the examination fee for each examination attempt.

(3) All sections of the examination taken on the same day are considered one examination attempt.

(4) An individual who attempts and fails the state-administered examination three times will be required to demonstrate to the department the successful completion of remedial education or training following the third attempt that is consistent with the ARRT standards before being eligible to retake the failed section or sections again.

[20.3.20.310 NMAC - N, 09/25/2018]

**20.3.20.311 - 20.3.20.319 [RESERVED]**

**20.3.20.320 LICENSES:**

**A. Licensure Requirements.** An applicant for a medical imaging or radiation therapy license shall submit the required application to the department; the applicable application fee located in 20.3.20.501 NMAC, and shall be currently certified and registered by a medical imaging or radiation therapy credentialing organization recognized by the board. An applicant for the medical imaging and radiation therapy licenses specified in the following shall have until June 30, 2019 to meet the requirements of this section:

(1) 20.3.20.320 NMAC;

(2) Paragraph A of 20.3.20.100 NMAC; and

(3) Subparagraphs (1), (2), (8), (10), (11), (16) and (17) of Paragraph F of 20.3.20.320

NMAC.

**B. Registration number.** The department shall assign a department registration number to each licensee regardless of the number of modalities and subspecialties licensed. The department registration number shall be listed on each certificate of licensure issued by the department.

**C. Term for licenses issued prior to the 15<sup>th</sup> of the month.** The license term for all licenses issued prior to the 15<sup>th</sup> of the month, except a temporary license, will:

(1) be for 24 months;

- (2) begin on the date the license is issued; and
- (3) end on the last day of the month the license was issued.

**D. Term for licenses issued after the 15<sup>th</sup> of the month.** The license term for all licenses issued after the 15<sup>th</sup> of the month, except a temporary license, will:

- (1) be for 24 months;
- (2) begin on the date the license is issued; and
- (3) end on the last day of the month following the month the license was issued.

**E. Request for coordination of license and credential expiration dates.** At the written request of the licensee, the expiration date of their license or licenses may be reduced to match their current credentialing organization's expiration date. Such reduction in term shall not reduce the applicant or licensee's license fee.

**F. Types of license.** Upon demonstration of compliance with all applicable requirements of the act and this part, the department may grant one or more of the following types of licenses to be recognized by the department:

- (1) (DMS) which includes sonography subspecialties of RDMS (ARDMS)(AB)(BR)(OB) and R.T. (ARRT)(S)(BS);
- (2) (MSK);
- (3) (FUS);
- (4) (LXV);
- (5) (LXE);
- (6) (LXP);
- (7) (LXT);
- (8) (MRT);
- (9) (NMT);
- (10) (PBS);
- (11) (PVL);
- (12) (RTT);
- (13) (RRT);
- (14) (RRA);
- (15) (TMP);
- (16) (VS), which includes sonography subspecialties of (ARDMS)(RVT) and R.T. ARRT (VS); and

- (17) (CS) which includes RDCS (ARDMS), RCS (CCI), and RCCS (CCI).

**G. Certificate of licensure.** Each certificate of licensure issued by the department shall identify all current licenses granted to the licensee.

[20.3.20.320 NMAC - N, 09/25/2018]

### 20.3.20.321 TEMPORARY LICENSES:

**A. Temporary license.** The purpose of a temporary license is to allow an individual who has completed an approved program pursuant to 20.3.20.200 NMAC to practice medical imaging or radiation therapy prior to sitting for their national examination with one of the medical imaging and radiation therapy credentialing organizations outlined in 20.3.20.300 NMAC. The department may grant a temporary license to practice medical imaging or radiation therapy to an individual who:

- (1) provides documentation to the department that the individual has completed an approved program pursuant to 20.3.20.200 NMAC;
- (2) submits an application for a temporary license to the department within one year of the individual's program completion date from an approved program;
- (3) submits the applicable fees for a temporary license pursuant to Paragraph G of 20.3.20.501 NMAC to the department within one year of the program completion date from an approved program;
- (4) provides the name and contact information of each employer where medical imaging or radiation therapy is performed by the individual; and
- (5) meets all other applicable licensure requirements of the act and this part.

**B. Notification.** The individual will be required to notify the department of any changes to his or her employment by providing the department with the contact information for each new employer where medical imaging or radiation therapy is performed by the individual within thirty days after the change occurs.

**C. Examination and notice.**

(1) The department will recognize the credentialing organization's determination of what is considered a pass or fail for an individual's examination score.

(2) The individual shall notify the department of the date the individual plans to take the examination at least 30 days prior to the examination date.

(3) If the credentialing organization determines that an individual has failed his or her examination, the individual's active temporary license issued by the department will expire 90 days after the examination date. The individual will be required to notify the department of a failed examination within 30 days of receiving his or her examination results.

**D. Temporary license term.** A temporary license:

(1) expires on the last day of the 12<sup>th</sup> month from the date of issuance or upon the applicant's failure to pass the examination as outlined in Subsection B of this section; and

(2) may be granted only once and cannot be renewed or extended; however, a duplicate temporary certificate of licensure may be issued by the department for display at another place of employment upon submission of a duplicate certificate of licensure application and fee.

[20.3.20.321 NMAC - N, 09/25/2018]

**20.3.20.322 PROVISIONAL LICENSES:**

**A. Provisional license.** The department may grant a provisional license to practice medical imaging to an individual who:

(1) is currently licensed by the department;

(2) submits an application to the department; and

(3) follows training pathways established by one of the following recognized national certification organizations:

(a) ARRT;

(b) ARDMS;

(c) ARMRT;

(d) CCI; or

(e) NMTCB.

**B. License Term.** A provisional license:

(1) expires two years from the date of issuance; and

(2) may be renewed one time.

**C. Term for licenses issued prior to the 15<sup>th</sup> of the month.** The license term for all licenses issued prior to the 15<sup>th</sup> of the month, except a temporary license, will:

(1) be for 24 months;

(2) begin on the date the license is issued; and

(3) end on the last day of the month the license was issued.

**D. Term for licenses issued after the 15<sup>th</sup> of the month.** The license term for all licenses issued after the 15<sup>th</sup> of the month, except a temporary license, will:

(1) be for 24 months;

(2) begin on the date the license is issued; and

(3) end on the last day of the month following the month the license was issued.

**E. Applicability to licensee enrolled in an approved program.** This section does not apply to a licensee who is currently enrolled in an approved program leading to qualification for another modality and subspecialty license.

[20.3.20.322 NMAC - N, 09/25/2018]

**20.3.20.323 - 20.3.20.329 [RESERVED]**

**20.3.20.330 CONTINUING EDUCATION:**

**A. Continuing education.**

(1) During the license term, a limited practice of radiography licensee must complete 24 hours or credits of category A or A+ continuing education approved by a RCEEM recognized by the ARRT. Documentation of completion of the required continuing education must be submitted to the department with each renewal application.

(2) During the license term, a medical imaging, a radiation therapy, or a radiologist assistant licensee, other than a limited practice of radiography licensee, must comply with all continuing education.



continuing competency, and registration requirements of the credentialing organization for which they hold a credential or certification. The department may require a licensee to certify meeting the credentialing organization's requirements. Failure to meet the credentialing organization's requirements may be grounds for suspension or revocation of a license. This does not apply to individuals with an active temporary license that has been issued by the department.

(3) The department may require a licensee to submit documentation from the credentialing organization if online verification is not available at the time the licensee's renewal request is being reviewed.

**B. Audit.** The department may audit a licensee's continuing education and continuing compliance with requirements of the act and this part. A licensee must submit the audit information requested by the department within 30 days of receipt of the notification of audit. No application or fees are required when submitting information requested by the department for an audit.

[20.3.20.330 NMAC - Rp, 20.3.20.500 NMAC, 09/25/2018]

### 20.3.20.331 - 20.3.20.339 [RESERVED]

#### 20.3.20.340 DUTIES OF LICENSEE:

**A. Continuing to comply with requirements.** A licensee must:

(1) continue to comply with all licensure requirements of the act and this part throughout the license term;

(2) maintain credential or certification and registration in their licensed imaging modality and subspecialty, if applicable, throughout the licensure period or notify the department in writing within 30 days that a credential or certification is no longer being maintained;

(3) notify the department in writing within 30 days of any pending or final actions by a credentialing organization, state agency, or federal agency against the licensee; and

(4) notify the department in writing within 30 days of lapse, probation, suspension, or revocation of any professional license.

**B. Expired, suspended, or revoked license.** An individual whose license has expired, or has been suspended or revoked by the department, shall not perform medical imaging or radiation therapy procedures.

**C. Duty to cooperate with department.** An applicant or licensee has a duty to cooperate with the department during an investigation or inspection authorized under the act, this part, or other state or federal law.

**D. Reporting violations.** A licensee has a duty to report a violation of the act, this part, or other state or federal law to the department or other appropriate agency.

**E. Supervision of students or licensees.**

(1) A limited practice of radiography licensee shall only provide supervision of a limited practice of radiography student or licensee.

(2) A medical imaging or radiation therapy licensee may provide supervision to a medical imaging or radiation therapy student or licensee in the same modality and specialization as the licensee. A radiographer may provide supervision to a limited practice of radiography student or licensee.

[20.3.20.340 NMAC - N, 09/25/2018]

#### 20.3.20.341 CERTIFICATE OF LICENSURE:

**A. Display of certificate of licensure.** Original certificates of licensure shall be publicly displayed by the licensee at each place of employment.

**B. Photocopying or reproduction prohibited.** Photocopying or other reproduction of a certificate of licensure is prohibited.

**C. Duplicate certificate of licensure or replacement of certificate of licensure.** To obtain a duplicate certificate of licensure or replacement of certificate of licensure, the licensee must submit a duplicate certificate of licensure or replacement certificate of licensure application and required fee to the department.

**D. Legal Name Change.** To obtain a replacement certificate of licensure due to a legal name change, the licensee must submit documentation of the legal name change, a name change application, and required fee to the department.

[20.3.20.341 NMAC - N, 09/25/2018]

### 20.3.20.342 - 20.3.20.399 [RESERVED]

#### 20.3.20.400 RENEWAL, REINSTATEMENT, AND REAPPLICATION:

**A. License renewal and reinstatement.** A licensee is solely responsible for ensuring they maintain a current license. Failure to receive notification by the department prior to the expiration date of the license is not an excuse for failure to file a timely renewal application.

(1) Prior to the expiration date listed on the licensee's current certificate of licensure, a licensee must submit the biennial licensure fee and completed renewal application, including any requested supporting documents to the department.

(2) The department will not process an incomplete renewal application.

(3) The department will process completed applications in the order received.

(4) The department shall not renew a license until it is satisfied the license renewal applicant meets all requirements of the act and this part.

(5) All required items must be received by the department prior to the expiration date on the licensee's current certificate of licensure or else the renewal application shall be considered incomplete. The licensee's failure to submit a complete license renewal application will result in a reinstatement fee. An earlier postmark date shall not excuse the reinstatement fee.

(a) If a reinstatement fee is assessed and all other requirements for renewal are met, the department will issue an invoice to the licensee that will accompany the renewed certificate of licensure.

(b) If an applicant or licensee fails to pay the reinstatement fee within 30 days of the invoice date, the department may take action to suspend the license until the department has received the reinstatement fee.

**B. Reapplication.** Reapplication is required if a license has been expired for more than one year. An applicant for reapplication must meet all of the requirements contained in 20.3.20.320 NMAC. [20.3.20.400 NMAC - Rp, 20.3.20.501 NMAC, 09/25/2018]

#### 20.3.20.401 - 20.3.20.499 [RESERVED]

#### 20.3.20.500 DEPARTMENT FORMS, CONFIDENTIALITY, AND RELEASE OF PERSONAL IDENTIFICATION:

##### A. Department forms required.

(1) An individual seeking licensure or any other services listed in this part shall submit a completed application form and applicable fee to the department.

(2) The department shall create and make available all necessary application forms.

(3) The department's forms may request such personal identification as is required to perform the department's duties under the act and this part including, but not limited to: name, mailing address, telephone numbers, email address, certifications, licenses, date of birth, and social security number.

(4) No application shall be complete unless it is on the form prescribed by the department and includes, in legible format:

(a) all required personal identification;

(b) copies of all supporting documents specified on the form;

(c) full payment of required fees by a method specified on the form; and

(d) date and signature of the applicant.

**B. Confidentiality of personal identification.** Personal identification collected by the department shall not be disclosed except:

(1) in the performance of the department's duties under the act or this part;

(2) as provided in this part or as required by state or federal law; or

(3) in response to a valid subpoena or court order.

**C. Release of licensee personal identification.** Unless otherwise provided by law, the department shall only release a licensee's name, mailing address, department registration number, and verification of license and subspecialty. The department may release information related to an application denial or license revocation or suspension to a credentialing organization. In accordance with federal law, the department shall release any required information related to revocation or suspension of a licensee to the national practitioner data bank.

[20.3.20.500 NMAC - N, 09/25/2018]

#### 20.3.20.501 FEES:

**A. Application fee.** In addition to any other fees, an application fee of \$10.00 must be submitted with each type of application available from the department, unless otherwise provided in this part.

**B. Initial license fee.** An initial license fee of \$100.00 must be submitted with each initial license application, regardless of the number of modality and subspecialty licenses requested on the same application.

**C. Examination fee.** An examination fee of \$150.00 must be submitted with each examination application as required in 20.3.20.310 NMAC.

**D. Biennial licensure fee.** A biennial fee of \$100.00 may be submitted to the department prior to the expiration date of the individual's current license issued by the department. The department will renew an individual's license upon submittal of the fee and the license will be valid for 24 months after the expiration date of their current license issued by the department.

**E. License reinstatement fee.** In addition to any other required fees, a license reinstatement fee of \$25.00 must be submitted with a license reinstatement application or if a licensee fails to submit a complete renewal application before the expiration of a license.

**F. Duplicate certificate of licensure or replacement of certificate of licensure fee.** A fee of \$5.00 will be required for each duplicate certificate of licensure or replacement of certificate of licensure requested in the application and a fee of \$5.00 for each additional duplicate certificate of license or replacement of certificate of licensure ordered from all other application forms that provide the option to request additional original duplicate certificates of licensure or replacement of certificate of licensure.

**G. Temporary license fee.** A temporary license fee of \$50.00 must be submitted with each temporary license application.

**H. Provisional license fee.** A provisional license fee of \$25.00 must be submitted with a provisional license application.

**I. License verification fee.** A license verification fee of \$10.00 for each verification must be submitted with each license verification form.

**J. Legal name change fee.** A legal name change fee of \$15.00 must be submitted with each legal name change application.

**K. Refunds.** Fees submitted to the department are non-refundable and non-transferrable. However, if the department determines that fees have been received in excess of the amount legally due, the department will refund the excess amount portion of the received fee upon receipt of a written request from the individual who paid the excess fee amount, or that individual's legal representative.

**L. Nonsufficient funds fee.** If the department is unable to process the fees submitted by the applicant, then the name of that licensee will be removed from the list of all New Mexico active radiologic technologists, which appears on the New Mexico environment department's radiation control bureau website, and the department will assess a \$25.00 nonsufficient fund fee. That licensee must submit payment to the department in the form of a cashiers' check or money order.

[20.3.20.501 NMAC - Rp, 20.3.20.600 NMAC, 09/25/2018]

### 20.3.20.502 - 20.3.20.599 [RESERVED]

#### 20.3.20.600 DENIAL, REVOCATION, OR SUSPENSION OF LICENSE:

**A. Denial of application.** The department may not issue a license to an applicant who has failed to meet the requirements of the act or this part.

**B. Suspension, revocation, application of uniform licensing act.** The board, with advice from the advisory council, may deny, revoke, or suspend a license granted or applied for under the act and this part, pursuant to the procedures established in the Uniform Licensing Act Section 61-1-1 through 61-1-34 NMSA 1978, upon grounds that the medical imaging or radiation therapy licensee or applicant:

- (1) is guilty of fraud or deceit in procuring or attempting to procure any type of license or service from the department;
- (2) has been convicted of a felony subsequent to licensure;
- (3) is unfit or incompetent;
- (4) is habitually intemperate or is addicted to the use of habit-forming drugs;
- (5) is mentally incompetent;
- (6) has aided and abetted an individual who is not a licensee in engaging in the activities of a licensee;
- (7) has failed to maintain a credential or certification in the modality and subspecialty for which a license was granted;
- (8) has engaged in any practice beyond the licensee's scope of practice in violation of state or federal law or facility policy;

(9) is guilty of unprofessional conduct or unethical conduct as defined in Subsection C of this section;

(10) has interpreted a diagnostic imaging exam for a patient, a patient's family, or the public;

(11) has willfully or repeatedly violated any provisions of the act or this part;

(12) has failed to notify the department in writing within 30 days of any final disciplinary action by a licensing board or credentialing organization, including but not limited to sanction, probation, suspension, or revocation; or

(13) is not in compliance with the terms of the New Mexico Parental Responsibility Act, Section 40-5A-1 to 40-5A-13 NMSA 1978; in taking action under this provision, the board shall follow the procedures in 20.1.7 NMAC named "Parental Responsibility Act Compliance."

**C. Unprofessional or unethical conduct.** With respect to the grounds for denial, revocation, or suspension under Section 61-14E-11 NMSA 1978, the terms "unprofessional conduct" or "unethical conduct" shall refer to, but shall not be limited to any licensee, applicant, medical imaging professional, or radiation therapist who:

(1) is engaged in the practice of medical imaging or radiation therapy while in an intoxicated condition or under the influence of a narcotic or other drug that impairs consciousness, judgment, or behavior;

(2) is engaged in unethical conduct while practicing medical imaging or radiation therapy;

(3) has engaged in the willful falsification of records, or destruction or theft of property or records relating to the practice of medical imaging or radiation therapy;

(4) fails to exercise due regard for the safety of life or health of the patient;

(5) has unauthorized access to or disclosure of information relating to a patient's records;

(6) discriminates against any individual because of race, religion, creed, color, national origin, sex, or sex while practicing medical imaging or radiation therapy;

(7) has been convicted of a felony subsequent to licensure by the department;

(8) impersonates a current or former licensee or engages in the activities of medical imaging or radiation therapy under an assumed name;

(9) is applying ionizing or non-ionizing radiation to a human being without a specific prescription or direction of a licensed practitioner or other health care practitioner authorized to order a medical imaging or radiation therapy;

(10) is incompetent or negligent in activities related to medical imaging, radiation therapy, or limited practice of radiography;

(11) is continuing to practice without obtaining a license or renewal as required by the act or this part;

(12) is using the prefix "Dr.," unless entitled to do so pursuant to a degree granted, the word "doctor", or any suffix or affix to indicate or imply that the individual is a licensed practitioner when not so licensed;

(13) is providing false, misleading, or deceptive information on any application or supporting documents submitted to the department;

(14) is failing to conform to nationally recognized practice standards as applicable to each modality or subspecialty;

(15) fails to disclose in writing to the department any felony conviction or non-compliance with the New Mexico Parental Responsibility Act, Section 40-5A-1 to 40-5A-13 NMSA 1978, within 30 days of the conviction or judgment; or

(16) fails to disclose in writing to the department any sanction, probation, suspension, or revocation by a state agency or credentialing organization within 30 days of such occurrence.

**D. Opportunity for licensee or applicant to have a hearing.** Any licensee or applicant whose license or license application is denied, revoked, or suspended under this part shall be afforded notice and an opportunity to be heard pursuant to the procedures established in the Uniform Licensing Act, Sections 61-1-1 to -34 NMSA 1978, the Medical Imaging and Radiation Therapy Health and Safety Act, Section 61-14E-11 NMSA 1978, and the adjudicatory procedures for the environmental improvement board in 20.1.2 NMAC.

**E. Application of uniform licensing act.** The department shall comply with the provisions of the Uniform Licensing Act, Section 61-1-1 to 61-1-34 NMSA 1978, and any rules or regulations promulgated thereunder.

[20.3.20.600 NMAC - Rp, 20.3.20.400 NMAC, 09/25/2018]

**20.3.20.601 - 20.3.20.699 [RESERVED]**

**20.3.20.700 SEVERABILITY:** If any provision or application of this part is held invalid, the remainder, or its application to other situations or persons, shall not be affected.  
[20.3.20.700 NMAC - Rp, 20.3.20.700 NMAC, 09/25/2018]

**20.3.20.701 AMENDMENT AND SUPERSESION OF PRIOR REGULATIONS:** This part shall be construed as amending and superseding the regulations on the practice of medical imaging or radiation therapy, EIB/MRHS 1, filed January 11, 1988, as amended. All references to the regulations on the practice of medical imaging or radiation therapy in any other rule shall be construed as a reference to this part.  
[20.3.20.701 NMAC - Rp, 20.3.20.701 NMAC, 09/25/2018]

**20.3.20.702 SAVING CLAUSE:** Supersession of the regulations on the practice of medical imaging or radiation therapy shall not affect any administrative or judicial enforcement action pending on the effective date of this part nor the validity of any license granted or certificate of licensure issued pursuant to the regulations on the practice of medical imaging or radiation therapy.  
[20.3.20.702 NMAC - Rp, 20.3.20.702 NMAC, 09/25/2018]

**20.3.20.703 CONSTRUCTION:** This part shall be liberally construed to effectuate the purpose of the act.  
[20.3.20.703 NMAC - Rp, 20.3.20.703 NMAC, 09/25/2018]

**20.3.20.704 COMPLIANCE WITH OTHER REGULATIONS:** Compliance with this part does not relieve an individual from the obligation to comply with other applicable state and federal regulations.  
[20.3.20.704 NMAC - Rp, 20.3.20.704 NMAC, 09/25/2018]

**HISTORY OF 20.3.20 NMAC:**

**Pre-NMAC History:** The material in this part was derived from that previously filed with the commission of public records - state records center and archives. EIB/MRHS 1, Regulations on the Practice of Radiologic Technology, 11/11/1988.

**History of repealed material:** 20 NMAC 3.2, Radiologic Technology Certification, (filed 12/15/95), repealed 08/31/2005.  
20.3.20 NMAC, Radiologic Technology Certification, effective 08/31/2005, repealed 09/25/2018.

**Other History:**

EIB/MRHS 1, Regulations on the Practice of Radiologic Technology (filed 11/11/1988) was renumbered, reformatted and amended as 20 NMAC 3.2, Radiologic Technology Certification, effective 01/14/96.

20 NMAC 3.2, Radiologic Technology Certification, (filed 12/15/95) was replaced by 20.3.20, Radiologic Technology Certification, effective 08/31/2005.

20.3.20 NMAC Radiologic Technology Certification, effective 08/31/2005, was replaced by 20.3.20, Medical Imaging and Radiation Therapy Licensure, effective 09/25/2018

**ARTICLE 114-02  
LICENSE REQUIREMENTS**

Chapter	
114-02-01	Initial Licensure
114-02-02	Renewal of License
114-02-03	Licensure by Endorsement
114-02-04	Recognition of Education Programs and Student Supervision
114-02-05	Recognized Certification Organizations and Credentials

**CHAPTER 114-02-01  
INITIAL LICENSURE**

Section	
114-02-01-01	Requirements for Licensure of Primary Modalities
114-02-01-02	Limited X-Ray Machine Operator
114-02-01-03	Bone Densitometry Technologist
114-02-01-04	Requirements for Continuing Education for Other Modalities Recognized by the Board
114-02-01-05	Cardiac Electrophysiology Specialist
114-02-01-06	Cardiovascular Invasive Specialist
114-02-01-07	Qualifications of Applicants for Initial Licensure for a Primary Modality
114-02-01-08	Requirements for Temporary License
114-02-01-09	Requirements for Conditional License
114-02-01-10	Grandfather Clause

**114-02-01-01. Requirements for licensure for primary modalities.**

An individual may be licensed in one or more of the primary modalities. An individual shall meet the following requirements for the primary modalities:

1. "Magnetic resonance imaging technologist" shall satisfactorily complete the academic requirements of a magnetic resonance imaging technology accredited program or must have satisfactorily completed a course of study including clinical experience requirements for certification in magnetic resonance imaging or hold current certification and registration in magnetic resonance imaging technology. The individual:
  - a. May perform such procedures while under the general supervision by a licensed practitioner.
  - b. Shall hold current certification and registration by one of the following:
    - (1) American registry of magnetic resonance imaging technologists;
    - (2) American registry of radiologic technologists in magnetic resonance imaging technology;
    - (3) Submits verification of actively working towards certification requirements in magnetic resonance imaging technology;
    - (4) Has met other requirements established by the board and has successfully passed the North Dakota state administered examination; or
    - (5) Has met the requirements of a successor organization or the equivalent as recognized by the board.
  - c. Biennially shall complete the continuing education and other requirements set by the applicable certification organization to maintain certification and registration.

- d. Otherwise the individual shall meet the unique licensure or practice standard requirements established by the board under subsection 7 of North Dakota Century Code section 43-62-14.
2. "Nuclear medicine technologist" shall satisfactorily complete an accredited education program in nuclear medicine technology and must hold current certification and registration in nuclear medicine technology. The individual:
    - a. May perform such procedures while under the general supervision by an authorized user who is licensed to possess and use the radiopharmaceuticals involved.
    - b. Shall hold current certification and registration by one of the following:
      - (1) Nuclear medicine technologist certification board;
      - (2) American registry of radiologic technologists in nuclear medicine technology;
      - (3) Has met other requirements established by the board and has successfully passed the North Dakota state administered examination; or
      - (4) Has met the requirements of a successor organization or the equivalent as recognized by the board.
    - c. Biennially shall complete the continuing education and other requirements set by the applicable certification organization to maintain certification and registration.
    - d. Otherwise the individual shall meet the unique licensure or practice standard requirements established by the board under subsection 7 of North Dakota Century Code section 43-62-14.
  3. "Radiation therapist" must have satisfactorily completed an accredited education program and hold a baccalaureate or an associate degree or must hold a current certification and registration in radiation therapy. The individual:
    - a. May perform such procedures:
      - (1) Using x-ray machines and particle accelerators while under the general supervision by an authorized user for external beam radiation therapy as defined by the requirements in North Dakota Century Code chapter 22.1-03; and
      - (2) Using sealed radioactive sources only while under the supervision of an authorized user of radioactive material as defined by the requirements in North Dakota Century Code chapter 23.1-03.
    - b. Shall hold current certification and registration by one of the following:
      - (1) American registry of radiologic technologists in radiation therapy or has met the requirements of a successor organization or the equivalent as recognized by the board.
      - (2) Has met other requirements established by the board and has successfully passed the North Dakota state administered examination.
    - c. Biennially shall complete the continuing education and other requirements set by the applicable certification organization to maintain certification and registration.



- d. Otherwise the individual shall meet the unique licensure or practice standard requirements established by the board under subsection 7 of North Dakota Century Code section 43-62-14.
4. "Radiographer" shall satisfactorily complete an accredited education program and must hold a baccalaureate or an associate degree or hold a current certification and registration in radiography. The individual:
  - a. May perform such procedures while under the general supervision by a licensed practitioner.
  - b. Shall hold current certification and registration by one of the following:
    - (1) American registry of radiologic technologists or has met the requirements of a successor organization or the equivalent as recognized by the board.
    - (2) Has met other requirements established by the board and has successfully passed the North Dakota state administered examination.
  - c. Biennially shall complete the continuing education and other requirements set by the applicable certification organization to maintain certification and registration.
  - d. Otherwise the individual shall meet the unique licensure or practice standard requirements established by the board under subsection 7 of North Dakota Century Code section 43-62-14.
5. "Radiologist assistant" shall satisfactorily complete an accredited education program and must hold a baccalaureate or master's degree. The individual:
  - a. May perform such procedures while under general supervision of a radiologist.
  - b. Shall hold current certification and registration as a radiographer by American registry of radiologic technologists; and
  - c. Shall hold advanced level current certification by one of the following:
    - (1) American registry of radiologic technologists as a radiologist assistant;
    - (2) Certification board of radiology practitioner assistants as a radiology practitioner assistant; or
    - (3) Has met the requirements of a successor organization or the equivalent as recognized by the board.
  - d. Biennially shall complete the continuing education and other requirements set by the applicable certification organization to maintain certification and registration.
  - e. Otherwise the individual shall meet the unique licensure or practice standard requirements established by the board under subsection 7 of North Dakota Century Code section 43-62-14.
6. "Sonographer" must hold a certificate, associate degree, or baccalaureate degree and shall satisfactorily complete the academic requirements and fulfill the clinical ultrasound requirements or hold current certification and registration in sonography. The individual:
  - a. May perform such procedures while under the general supervision by a licensed practitioner.

- b. Shall hold current certification and registration by one of the following or a successor organization or the equivalent as recognized by the board:
  - (1) American registry for diagnostic medical sonography;
  - (2) American registry of radiologic technologists in sonography;
  - (3) Cardiovascular credentialing international;
  - (4) Sonography Canada; or
  - (5) Has met the requirements established by the board and has successfully passed the North Dakota state administered examination.
- c. Biennially shall complete the continuing education and other requirements set by the applicable certification organization to maintain certification and registration.
- d. Otherwise the individual shall meet the unique licensure or practice standard requirements established by the board under subsection 7 of North Dakota Century Code section 43-62-14.

**History:** Effective April 1, 2018.

**General Authority:** NDCC 43-62

**Law Implemented:** NDCC 43-62-09(5), 43-62-14, 43-62-15(2)

**114-02-01-02. Limited x-ray machine operator.**

- 1. A limited license under this chapter may be issued provided the applicant was designated by the state department of health as a limited x-ray machine operator prior to the effective date of this section and is actively practicing immediately prior to that date and does not have an encumbered license or other restricted practice in any jurisdiction and meets board requirements, including continuing education requirements and training. The individual:
  - a. May perform limited series procedures only while under the general supervision by a licensed practitioner.
  - b. Upon renewal biennially shall complete twelve hours of continuing education.
  - c. Otherwise the individual shall meet the unique licensure or practice standard requirements established by the board under subsection 7 of North Dakota Century Code section 43-62-14.
- 2. After the date specified in subsection 1, an initial applicant for limited x-ray machine operator:
  - a. Must have satisfactorily completed the academic requirements of a structured limited x-ray machine operator program recognized by the board;
  - b. Shall demonstrate practical clinical competency in limited x-ray machine operator technology as verified by a licensed American registry of radiologic technologist radiographer or other designee as approved by the board, on a form provided by the board;
  - c. Has successfully passed the North Dakota state administered examination in limited scope of practice radiography;
  - d. May perform limited series procedures only while under the general supervision by a licensed practitioner;

- e. Biennially shall complete twelve hours of continuing education;
  - f. The individual shall complete a criminal history record check as required in section 114-03-02-01; and
  - g. Shall meet other requirements established by the board. See Appendix A for practice standards.
3. To be eligible for licensure as a limited x-ray machine operator after completing the requirements of subsection 2, an applicant shall hold at least one of the following licenses:
- a. Medical technologist, medical laboratory technician, or clinical laboratory technician;
  - b. Occupational therapist or occupational therapy assistant;
  - c. Physical therapist or physical therapy assistant;
  - d. Physician assistant or orthopedic physician assistant;
  - e. Registered nurse or licensed practical nurse;
  - f. Otherwise, an individual may petition the board for licensure if the individual's education background is substantially similar to the above.

**History:** Contingent effective date. See Section 75 of 2017 Senate Bill No. 2327.

**General Authority:** NDCC 43-62

**Law Implemented:** NDCC 12-60-24, 43-62-14, 43-62-15

**114-02-01-03. Bone densitometry technologist.**

1. "Bone densitometry technologist" shall satisfactorily complete a course of study in bone densitometry. The individual:
- a. May perform such procedures only while under the general supervision of a licensed practitioner.
    - (1) Must hold current registration and certification in a primary modality; or
    - (2) Registration and certification from the international society for clinical densitometry or has met the requirements of a successor organization or the equivalent as recognized by the board; or
    - (3) Has successfully passed the North Dakota state administered examination in bone densitometry.
  - b. Biennially shall complete the required continuing education.
  - c. The individual shall complete a criminal history record check as required in section 114-03-02-01.
  - d. Otherwise the individual shall meet the unique licensure or practice standard requirements established by the board under subsection 7 of North Dakota Century Code section 43-62-14.
2. To be eligible for licensure as a bone densitometry technologist after completing the requirements in subsection 1, the applicant shall hold at least one of the following licenses:
- a. Medical technologist, medical laboratory technician, or clinical laboratory technician;

- b. Occupational therapist or occupational therapy assistant;
  - c. Physical therapist or physical therapy assistant;
  - d. Physician assistant or orthopedic physician assistant; or
  - e. Registered nurse or licensed practical nurse.
3. Otherwise, an individual may petition the board for licensure if the individual's education or research background is substantially similar to subdivisions a through e of subsection 2.

**History:** Contingent effective date. See Section 75 of 2017 Senate Bill No. 2327.

**General Authority:** NDCC 43-62

**Law Implemented:** NDCC 12-60-24, 43-62-14, 43-62-15

**114-02-01-04. Requirements for continuing education for other modalities recognized by the board.**

- 1. An individual must be continuing education compliant in each modality of practice and may practice in more than one modality and all the modalities will be acknowledged on the license.
- 2. To practice in a modality other than primary modalities, an individual shall meet the following requirements:
  - a. Biennially shall complete five hours of continuing education in each modality of current practice; or
  - b. Otherwise the individual shall meet the unique licensure or practice standard requirements established by the board under subsection 7 of North Dakota Century Code section 43-62-14.
- 3. The following modalities will be monitored for continuing education compliance only:
  - a. Cardiac-interventional technology;
  - b. Computed tomography technology;
  - c. Mammography technology;
  - d. Quality management technology;
  - e. Vascular-interventional technology; and
  - f. Other modalities as recognized by the board.

**History:** Effective April 1, 2018.

**General Authority:** NDCC 43-62

**Law Implemented:** NDCC 43-62-14(3)

**114-02-01-05. Cardiac electrophysiology specialist.**

"Cardiac electrophysiology specialist" shall satisfactorily complete all requirements as set by a certification organization recognized by the board or hold current certification and registration. The individual:

- 1. May assist with the performance of fluoroscopy procedures only while under personal supervision by a licensed practitioner; and

- a. Must hold current certification and registration as a cardiac electrophysiology specialist by the cardiovascular credentialing international;
  - b. Shall submit verification of actively working towards certification requirements as a cardiac electrophysiology specialist; or
  - c. Shall meet the requirements of a successor organization or the equivalent as recognized by the board.
2. Biennially shall complete twelve hours of fluoroscopy safety and relevant radiation protection continuing education.
  3. The individual shall complete a criminal history record check as required in section 114-03-02-01.
  4. Otherwise the individual shall meet the unique licensure or practice standard requirements established by the board under subsection 7 of North Dakota Century Code section 43-62-14.

**History:** Effective April 1, 2018.

**General Authority:** NDCC 43-62

**Law Implemented:** NDCC 12-60-24, 43-62-09(15), 43-62-14(4)(7)

**114-02-01-06. Cardiovascular invasive specialist.**

"Cardiovascular invasive specialist" shall satisfactorily complete all requirements as set by a certification organization recognized by the board or hold current certification and registration. The individual:

1. May assist with the performance of fluoroscopy procedures only while under personal supervision by a licensed practitioner; and
  - a. Must hold current certification and registration as a cardiovascular invasive specialist by the cardiovascular credentialing international;
  - b. Shall submit verification of actively working towards certification requirements as a cardiac invasive specialist; or
  - c. Shall meet the requirements of a successor organization or the equivalent as recognized by the board.
2. Biennially shall complete twelve hours of fluoroscopy safety and relevant radiation protection continuing education.
3. The individual shall complete a criminal history record check as required in section 114-03-02-01.
4. Otherwise the individual shall meet the unique licensure or practice standard requirements established by the board under subsection 7 of North Dakota Century Code section 43-62-14.

**History:** Effective April 1, 2018.

**General Authority:** NDCC 43-62

**Law Implemented:** NDCC 12-60-24, 43-62-09(15), 43-62-14(4)(7)

**114-02-01-07. Qualifications of applicants for initial licensure for a primary modality.**

1. An applicant for initial licensure under this chapter may not have an encumbered license or other restricted practice in any jurisdiction, shall meet board requirements, and submit the following:

- a. A completed application and the nonrefundable fee required in chapter 114-01-03;
  - b. An official transcript from an accredited program;
  - c. Other documents that verify successful completion of medical imaging or radiation therapy education approved in a jurisdiction which meets or exceeds those requirements in chapter 114-02-01 for each modality. The applicant is applying for licensure as defined in sections 114-02-01-01, 114-02-01-02, or 114-02-01-03;
  - d. Primary source verification of current certification and registration recognized by the board in each primary modality of practice; and
  - e. Otherwise an applicant shall meet the unique licensure or practice standard requirements established by the board under subsection 7 of North Dakota Century Code section 43-62-14.
2. An applicant shall complete a criminal history record check as required in section 114-03-02-01.
  3. The expiration date of an initial license must be consistent with the two-year cycle. An individual who is licensed after September first of a two-year cycle will be issued a license that will expire at the conclusion of the following two-year cycle.

**History:** Effective April 1, 2018.

**General Authority:** NDCC 43-62

**Law Implemented:** NDCC 12-60-24, 43-62-02, 43-62-14

#### **114-02-01-08. Requirements for temporary license.**

An applicant for a temporary license under this chapter may not have an encumbered license or other restricted practice in any jurisdiction, must meet board requirements; and

1. An applicant shall submit a completed application and the nonrefundable fee required in chapter 114-01-03; and:
  - a. Provide evidence of currently meeting all education requirements to include a completed official transcript or notarized letter from program director; and
  - b. Shall complete a criminal history record check as required in section 114-03-02-01; and
2. An applicant shall submit evidence that the applicant:
  - a. Will provide services in a medically underserved area of North Dakota; or
  - b. Provide documentation of registration time frame for taking the examination or the applicant is awaiting registration and certification examination results.
3. The temporary license expires at the earlier of one hundred eighty days from issuance or when the board grants or denies a regular license.

**History:** Effective April 1, 2018.

**General Authority:** NDCC 43-62

**Law Implemented:** NDCC 12-60-24, 43-62-09(15), 43-62-14, 43-62-16(2)

#### **114-02-01-09. Requirements for conditional license.**

1. A conditional license under this chapter may be issued provided the applicant does not have an encumbered license or other restricted practice in any jurisdiction, and provide evidence of

meeting board requirements, including continuing education requirements and training. The individual shall:

- a. Submit a completed application and the nonrefundable fee as required in chapter 114-01-03; and
    - (1) An official transcript from an accredited educational program; or
    - (2) Other documents that verify pending or successful completion of a medical imaging or radiation therapy education program, which:
      - (a) Has been approved in any jurisdiction that has substantially equivalent standards; and
      - (b) Meets or exceeds those requirements in chapter 114-02-01 for each modality in which the individual is applying for licensure as defined in sections 114-02-01-01, 114-02-01-02, 114-02-01-03, 114-02-01-04, 114-02-01-05, or 114-02-01-06.
  - b. Submit verification of actively working towards completion of the program requirements.
2. An applicant for a conditional license also shall submit verification of actively working toward certification and registration; and
    - a. Meets standards specifically set by the board on a case-by-case basis for continuing education requirements and training for each modality; or
    - b. Has met other requirements as established by the board and is actively working toward meeting the requirements to take the North Dakota state administered examination.
    - c. Otherwise an applicant must meet the unique licensure or practice standard requirements established by the board under subsection 7 of North Dakota Century Code section 43-62-14.
  3. A conditional license may be issued to an applicant who began practice after December 31, 2016.
  4. The conditional license expires two years from the date of issuance and may be renewed one time or as otherwise approved by the board.
  5. A conditional license may not be renewed if the applicant has attained a license in a primary modality.

**History:** Effective April 1, 2018.

**General Authority:** NDCC 43-62

**Law Implemented:** NDCC 12-60-24, 43-62-09(15), 43-62-14

**114-02-01-10. Grandfather clause.**

1. A license may be issued provided the applicant does not have an encumbered license or other restricted practice in any jurisdiction. The individual:
  - a. Is eligible to be licensed only within the scope of the individual's current practices;
  - b. Shall submit verification from a department manager or employer that the individual has been practicing medical imaging and radiation therapy in a primary modality:
    - (1) That began practice prior to January 1, 2017; and

- (2) Has practiced for three or more of the five years preceding; and
  - c. Shall be in compliance with the certification organization's continuing education and other requirements for the modality in which the individual is currently practicing.
2. Otherwise the applicant shall meet the unique licensure or practice standard requirements established by the board under subsection 7 of North Dakota Century Code section 43-62-14, which may include one or more of the following:
- a. Additional education requirements, such as academic courses or courses of study;
  - b. A limitation of scope of practice;
  - c. Evidence of continuing education seminars or workshop;
  - d. Evidence of departmental accreditation in the relevant modalities of practice, such as American college of radiology or intersocietal accreditation commission;
  - e. Onsite evaluation for assurance of meeting the professional guidelines;
  - f. Verification of on-the-job training; or
  - g. Other requirements as determined by the board to protect the public health, safety, and welfare.
3. A grandfathered license is eligible for renewal of such license under the conditions and standards prescribed in this chapter.

**History:** Effective April 1, 2018.

**General Authority:** NDCC 43-62

**Law Implemented:** NDCC 43-62-02, 43-62-14(7)



## APPENDIX A

### Practice Standards Related to Limited X-Ray Machine Operators

Limited x-ray machine operators are limited in scope of practice to only those procedures approved by the board. Limited x-ray machine operators may not perform fluoroscopic procedures or administer contrast media or radiopharmaceuticals. Specific procedures or examinations that are allowed in the scope of practice for limited x-ray machine operators include the following:

Chest:	PA, lateral, decubitus
Ribs:	AP, PA, obliques
Abdomen:	KUB, upright abdomen
Hand and fingers:	PA, lateral, oblique
Wrist:	PA, lateral, oblique
Forearm:	AP, lateral
Elbow:	AP, lateral
Humerus:	AP, lateral
Shoulder:	AP, internal and external rotation, y-view
Clavicle:	AP, AP axial
Pelvis:	AP
Hips:	AP, frog leg lateral, cross-table lateral
Femur:	AP, lateral
Knee:	AP, lateral, obliques
Patella:	AP, lateral, sunrise
Tibia-fibula:	AP, lateral
Ankle:	AP, lateral, obliques
Calcaneus:	Plantodorsal, lateral
Foot and toes:	AP, lateral, obliques
Sinuses:	Water's, lateral
Skull:	AP/PA, lateral
Facial bones:	PA, lateral
Nasal bones:	Water's, lateral
C-spine:	AP, lateral, odontoid, (not trauma), swimmer's (not trauma)
T-spine:	AP, lateral, swimmer's (not trauma)
L-spine:	AP, lateral, L5-S1 lateral

Any other procedure or examination performed during an emergency and requiring a limited x-ray machine operator to perform requires a written order from a licensed practitioner with personal supervision.

Licensees may petition the board to perform procedures and examinations not currently identified above. One of the criterion utilized by the board includes frequency of performance to consider approval or justification of expansion of the procedures and examination outlined above.

**ARTICLE 114-04  
STANDARDS OF PRACTICE**

Chapter  
114-04-01          Standards Related to Professional Accountability

**CHAPTER 114-04-01  
STANDARDS RELATED TO PROFESSIONAL ACCOUNTABILITY**

Section  
114-04-01-01      Standards Related to Professional Accountability

**114-04-01-01. Standards related to professional accountability.**

1. A licensee is responsible and accountable to practice according to the standards of practice and code of ethics recognized by the board and the profession.
  - a. It is not the setting or the position title that determines a practice role, but rather the application of knowledge.
  - b. The licensee performs procedures for diagnostic or therapeutic purposes dependently through the prescription of a licensed practitioner.
  - c. The licensee practices within the legal boundaries through the scope of practice authorized by North Dakota Century Code chapter 43-62 and this title.
2. A licensee shall perform according to practice standards of the modality as established by the:
  - a. Alliance of cardiovascular professionals;
  - b. American college of radiology;
  - c. American institute of ultrasound in medicine;
  - d. American society of radiologic technologists;
  - e. American society of echocardiography;
  - f. International society for clinical densitometry;
  - g. Society of diagnostic medical sonography;
  - h. Society of nuclear medicine and molecular imaging;
  - i. Society for vascular ultrasound;
  - j. Sonography Canada; and
  - k. A successor organization or the equivalent as recognized by the board.
3. The practice standards include the following:
  - a. Bone densitometry;
  - b. Cardiac electrophysiology;
  - c. Cardiac-interventional;
  - d. Cardiovascular invasive;

- e. Computed tomography;
- f. Limited x-ray machine operator (refer to Appendix A of chapter 114-02-01);
- g. Magnetic resonance imaging;
- h. Mammography;
- i. Nuclear medicine;
- j. Positron emission tomography;
- k. Quality management;
- l. Radiography;
- m. Radiologist assistant;
- n. Radiation therapy;
- o. Sonography;
- p. Vascular interventional technology; and
- q. Other practice standards as recognized by the board.

**History:** Effective: April 1, 2018

**General Authority:** NDCC 43-62

**Law Implemented:** NDCC 43-62-14(2)(3)(4), 43-62-15

## CHAPTER 114-01-02 DEFINITIONS

### Section

114-01-02-01 Definitions

#### **114-01-02-01. Definitions.**

The terms used in this title have the same meaning as in North Dakota Century Code chapter 43-62 and apply to North Dakota Administrative Code title 114 unless the context indicates otherwise.

1. "Accreditation" means the official authorization or status granted by a nationally recognized accrediting organization or agency.
2. "Applicant" means an individual seeking official action by the board.
3. "Approved" means the standards established by the board are met.
4. "Authority" means legal authority granted through licensure to provide medical imaging or radiation therapy services to patients.
5. "Authorized user" means a physician, dentist, or podiatrist who is licensed as required to possess and use radioactive materials under North Dakota Century Code chapter 23.1-03.
6. "Bone densitometry technologist" means an individual, other than a licensed practitioner, who is responsible for administration of ionizing radiation to humans to determine the density of bone structure for diagnostic, therapeutic, or research purposes.
7. "Cardiac electrophysiology specialist" means an individual, other than a licensed practitioner, who assists with limited fluoroscopic radiologic procedures, sonography, or diagnostic and interventional cardiac electrophysiology procedures.
8. "Cardiac-interventional technologist" means an individual, other than a licensed practitioner, that is responsible for the administration of ionizing radiation to humans to visualize cardiac structures for diagnostic, therapeutic, or research purposes.
9. "Cardiovascular invasive specialist" means an individual, other than a licensed practitioner, who assists with medical equipment emitting ionizing radiation for fluoroscopic radiologic procedures or performs sonography procedures that are limited to specific body parts and only for cardiovascular interventional procedures.
10. "Competence" means the application and integration of knowledge, skills, ability, and judgment necessary to meet standards.
11. "Computed tomography technologist" means an individual, other than a licensed practitioner, who is responsible for the administration of ionizing radiation to humans for diagnostic, therapeutic, or research purposes.
12. "Conditional license" means a license issued by the board to an individual who may or may not have graduated from a program and is actively working toward certification and registration.
13. "Continuing education" means a relevant education activity or program that has been approved by an organization or entity, which has been recognized or authorized by a certification organization to approve or provide continuing education or continuing medical education activities for medical imaging or radiation therapy professionals.

14. "Criminal history record information" has the same meaning as the phrase is defined in North Dakota Century Code section 12-60-16.1.
15. "Fluoroscopy" means the exposure of a patient to x-rays to provide real-time, dynamic viewing of anatomic structures, including positioning the patient and fluoroscopic equipment along with the selection of factors needed to produce an image.
16. "Internationally educated" means educated outside the United States.
17. "Jurisdiction" means a province, state, or territory that certifies, registers, or licenses medical imaging or radiation therapy professionals to practice.
18. "Lapsed" means a license which is not renewed.
19. "License" means the legal authority granted by the board to practice one or more of the medical imaging and radiation therapy modalities.
20. "Licensure" means the process by which the board grants legal authority to an individual to engage in the practice of medical imaging or radiation therapy upon finding the individual has attained the essential education, certification and competence, or on-the-job training, necessary to ensure the public health, safety, and welfare will be protected.
21. "Limited license" means to restrict, qualify, or otherwise modify the license related to a scope of practice.
22. "Limited x-ray machine operator" means an individual who performs radiologic examinations and has completed the necessary didactic and clinical training required to follow strict guidelines in the performance of limited series x-ray procedures.
23. "Magnetic resonance imaging technologist" means an individual other than a licensed practitioner, who uses radiofrequency transmission within a high-strength magnetic field on humans for diagnostic, therapeutic, or research purposes.
24. "Mammography technologist" means an individual, other than a licensed practitioner, who is responsible for administration of ionizing radiation and breast directed high-frequency sound waves for diagnostic, therapeutic, and research purposes, and performs breast imaging procedure and related techniques, producing data.
25. "Medically underserved areas" means having met the criteria based on the Index of Medical Underservice, published in the Federal Register on October 15, 1976. See 42 CFR 51C.102(e) United States of health and human services health resources and services administration.
26. "Nuclear medicine technologist" means an individual, other than an authorized user, who prepares and administers radiopharmaceuticals and related drugs to human beings for diagnostic and research purposes, and is responsible for the use of ionizing and nonionizing radiation and molecular imaging, performs in vivo and in vitro detection and measurement of radioactivity and administers radiopharmaceuticals to human beings for therapeutic purposes.
27. "Other modality" means the practice of one or more of the medical imaging and radiation therapy recognized professions while in compliance with the continuing education requirements established by the board.
28. "Primary source verification" means the process used by the board or its designee to confirm certification and registration information submitted by the applicant or licensee with the appropriate certification organization.

29. "Quality management technologist" means an individual, other than a licensed practitioner, who has received specific documented training to perform physics surveys independently with medical physicist oversight and may assist a medical physicist for special modality physics surveys. The licensee also may supervise quality control and quality improvement projects that ensure improved medical imaging and radiation therapy department performance.
30. "Radiographer" means an individual, other than a licensed practitioner, who performs a comprehensive set of diagnostic radiographic procedures using external ionizing radiation and contrast media to produce radiographic, fluoroscopic, or digital images.
31. "Radiologist assistant" means an individual, other than a licensed practitioner, who is a medical radiographer with advanced-level training and certification, and performs selected radiology examinations and procedures.
32. "Radiology" means the branch of medicine that deals with the study and application of imaging technology to diagnose and treat disease.
33. "Reinstatement" means issuance of a previously active license in the absence of disciplinary action.
34. "Relicensure" means renewal, reinstatement, or reissuance of a license.
35. "Scope of practice" means the delineation of the nature and extent of practice.
36. "Sonographer" means an individual, other than a licensed practitioner, who uses nonionizing, high-frequency sound waves with specialized equipment to direct the sound waves into areas of the human body to generate images for the assessment and diagnosis of various medical conditions.
37. "Supervision" means responsibility for and control of, quality, radiation safety and protection, and technical aspects of the application of ionizing and nonionizing radiation to human beings for diagnostic or therapeutic purposes:
  - a. "General" means the licensee is under the overall direction and control of a licensed practitioner or an authorized user whose presence is not required during the performance of the procedure.
  - b. "Personal" means the licensed practitioner must be in attendance in the room during the performance of the procedure.
38. "Temporary license" means the authority to practice for a limited time period not to exceed one hundred eighty days.
39. "Vascular interventional technologist" means an individual, other than a licensed practitioner, who is responsible for the administration of ionizing radiation to humans to visualize vascular structures for diagnostic, therapeutic, or research purposes.

**History:** Effective April 1, 2018.

**General Authority:** NDCC 43-62

**Law Implemented:** NDCC 43-62-09

## CHAPTER 114-01-03 FEES

### Section

114-01-03-01 Fees

#### **114-01-03-01. Fees.**

The board shall set fees in such an amount as to reimburse the operational cost of licensure services rendered. All fees are nonrefundable.

1. Application fee (Initial for all modalities): \$25.00.
2. Bone densitometry technologist and limited x-ray machine operator:
  - a. Biennial renewal: \$75.00.
  - b. Endorsement fee: \$75.00 plus the application fee.
  - c. Initial licensure application fee: \$75.00 plus the application fee.
  - d. Late biennial renewal fee for an individual not practicing and is not currently licensed: biennial renewal fee plus an additional \$50.00 reinstatement fee, if the application is postmarked on or between January second and March first.
  - e. Late biennial renewal fee for an individual practicing and is not currently licensed: double biennial renewal fee plus an additional \$50.00 reinstatement fee, if the application is postmarked on or between January second and March first.
  - f. Renewal of licensure after March first must be approved by the board prior to issuance of a license.
3. Conditional license fee: \$150.00 and an application fee. This fee may be prorated towards the initial licensure fee. This only applies to an individual who does not currently hold a license in a primary modality.
4. Duplicate license request: \$10.00.
5. Primary modalities as defined in subsection 7 of North Dakota Century Code section 43-62-01, including cardiac electrophysiology specialist and cardiovascular invasive specialist:
  - a. Biennial renewal: \$150.00.
  - b. Endorsement fee: \$150.00 plus the application fee.
  - c. Initial licensure application fee: \$150.00 plus the application fee.
  - d. Late biennial renewal fee for an individual not practicing and is not currently licensed: biennial renewal fee plus an additional \$50.00 reinstatement fee, if the application is postmarked on or between January second and March first.
  - e. Late biennial renewal fee for an individual practicing and is not currently licensed: double biennial renewal fee plus an additional \$50.00 reinstatement fee, if the application is postmarked on or between January second and March first.
  - f. Renewal of licensure after March first must be approved by the board prior to issuance of a license.
6. Reinstatement fee for all licensees: \$50.00.

7. Request for licensee mailing information: \$25.00.
8. Temporary licensure fee \$40.00 plus the application fee. This fee may be prorated towards the initial licensure fee.
9. The expiration date of an initial license must be consistent with the two-year cycle. An individual who is licensed after September first of the second year of a two-year cycle, must be issued a license that expires at the conclusion of the following two-year cycle.

**History:** Effective April 1, 2018.

**General Authority:** NDCC 43-62

**Law Implemented:** NDCC 43-62-09(6), 43-62-16



## CHAPTER 114-02-02 RENEWAL OF LICENSE

### Section

114-02-02-01	Requirements for License Renewal
114-02-02-02	Reinstatement of a License
114-02-02-03	General Diagnostic Operator
114-02-02-04	Continuing Education Requirement for Relicensure

#### **114-02-02-01. Requirements for licensure renewal.**

1. A licensee will be notified at least thirty days in advance of expiration of the license and shall submit the following:
  - a. A completed renewal application and the nonrefundable fee required in chapter 114-01-03 postmarked prior to January second in even-numbered years; and
  - b. Evidence of current certification and registration by the certification organization in at least one primary modality and if applicable, other modalities for which the licensee holds current certification and registration unless grandfathered or otherwise exempt by statute.
2. The board may grant, on a case-by-case basis, exceptions to the board's license renewal requirements to address renewal compliance hardships that may result from one of the following:
  - a. Activation of more than thirty days of a licensee who is a member of the national guard or armed forces of the United States;
  - b. Service in the theater or area of armed conflict by a licensee who is a member of the regular active duty armed forces of the United States; or
  - c. Medical or other hardship rendering the applicant unable to meet the renewal deadline or complete continuing education or other requirements.
3. A licensee applying for license renewal may be required to complete a criminal history record check as required in section 114-03-02-01.
4. The board may conduct random audits to ensure compliance with continuing education and maintenance of certification and registration requirements.
5. A license granted for a primary modality under sections 114-02-01-08 or 114-02-01-09 may not be renewed if the licensee attains a license in that modality.
6. If a licensee fails to timely renew a license, a late fee will be assessed in accordance with section 114-01-03-01.
7. The expiration date of a renewed license must be consistent with the two-year cycle. An individual who has a license issued after September first of the second year of a two-year cycle, must be issued a license that expires at the conclusion of the following two-year cycle.

**History:** Effective April 1, 2018.

**General Authority:** NDCC 43-62

**Law Implemented:** NDCC 43-51-11, 43-51-11.1, 43-62-09, 43-62-14, 43-62-17

**114-02-02-02. Reinstatement of a license.**

1. An individual previously licensed in North Dakota may apply for relicensure. The applicant may not have an encumbered license or other restricted practice in any jurisdiction, shall meet board requirements, and submit the following:
  - a. A completed application and pay the nonrefundable renewal and reinstatement fee required in chapter 114-01-03;
  - b. A criminal history record check as required in section 114-03-02-01; and
  - c. Primary source verification of current certification and registration by a certification organization recognized by the board or as otherwise exempt by statute.
2. The expiration date of a license must be consistent with the two-year cycle. An individual who is licensed after September first of the second year of a two-year cycle, must be issued a license that expires at the conclusion of the following two-year cycle.

**History:** Effective April 1, 2018.

**General Authority:** NDCC 43-62

**Law Implemented:** NDCC 12-60-24, 43-62-17(3)

**114-02-02-03. General diagnostic operator.**

1. A license under the provision of this chapter may be renewed provided the applicant was designated by the state department of health as a general diagnostic operator as of December 31, 2015, and does not have an encumbered license or other restricted practice in any jurisdiction and shall meet board requirements, including continuing education requirements and training. The individual:
  - a. May perform procedures only while under the general supervision by a licensed practitioner; and
  - b. Must hold current certification and registration by one of the following:
    - (1) American registry of radiologic technologists or has met the requirements of a successor organization or the equivalent as recognized by the board;
    - (2) Has the equivalent education, including clinical training as approved by the state department of health; or
    - (3) Has met other unique requirements established by the board.
2. The individual biennially shall complete the twenty-four hours of continuing education.
3. The individual shall complete a criminal history record check as required in section 114-03-02-01.
4. Otherwise the individual shall meet the unique licensure or practice standard requirements established by the board under subsection 7 of North Dakota Century Code section 43-62-14.

**History:** Effective April 1, 2018.

**General Authority:** NDCC 43-62

**Law Implemented:** NDCC 12-60-24, 43-62-14

#### **114-02-02-04. Continuing education requirement for relicensure.**

This requirement becomes effective for license renewal of the 2022 renewal cycle and continuing thereafter.

1. Continuing education for purposes of relicensure must be:
  - a. Accepted by an applicable certification organization to maintain certification and registration and earned within the previous two-year renewal cycle; or
  - b. Otherwise the individual shall meet the unique licensure or practice standard requirements established by the board under subsection 7 of North Dakota Century Code section 43-62-14.
2. A licensee shall meet or exceed the hours of continuing education required to maintain certification and registration by an applicable certification organization.
3. Random audits may be conducted to assure continuing education requirement compliance.
4. All information concerning continuing education submitted with an application is subject to audit.
5. Upon request of the board, the licensee shall submit verification of successful completion of the required continuing education.
6. A licensee who does not meet the continuing education requirements for maintaining certification and registration, or if the continuing education is not properly approved, or if the licensee fails to provide verification of completion of the required continuing education:
  - a. May be placed on probation and given sixty days to complete the required continuing education, and as applicable, provide evidence of current certification and registration by a certification organization to qualify for a license.
  - b. If required continuing education is not completed or the licensee fails to maintain a current certification and registration by an applicable certification organization, the license is considered to be a lapsed license.
7. A licensee who earns in excess of the number of continuing education required during a reporting period may not apply the excess hours to satisfy future continuing education requirements.
8. Continuing education that is required by the board pursuant to a board order may not be accepted by the board to satisfy or partially satisfy the continuing education requirements for license renewal.

**History:** Effective April 1, 2018.

**General Authority:** NDCC 43-62

**Law Implemented:** NDCC 43-62-14(3)

**CHAPTER 114-02-03  
LICENSURE BY ENDORSEMENT**

Section

- 114-02-03-01 Requirements for Licensure by Endorsement
- 114-02-03-01.1 Limited X-Ray Machine Operator in Nonlicensure State Endorsement Requirements
- 114-02-03-02 Military Spouses - Licensure

**114-02-03-01. Requirements for licensure by endorsement.**

1. An applicant licensed for medical imaging or radiation therapy in another jurisdiction may apply for license by endorsement. The applicant may not have an encumbered license or other restricted practice in any jurisdiction, shall meet board requirements, and submit the following:
  - a. A completed endorsement application in one or more of the modalities and pay the nonrefundable fee as required in chapter 114-01-03.
  - b. Verification of current licensure and compliance with continuing education requirements in another jurisdiction, to include:
    - (1) An official transcript of program completion from an accredited program; or
    - (2) Other documents that verifies successful completion of a medical imaging or radiation therapy education or equivalent approved in any jurisdiction which meets or exceeds those requirements:
      - (a) In chapter 114-02-01 for each modality applying for licensure as described in sections 114-02-01-01, 114-02-01-02, 114-02-01-03, 114-02-01-04, 114-02-01-05, or 114-02-01-06; or
      - (b) Otherwise the applicant shall meet the unique licensure or practice standard requirements established by the board under subsection 7 of North Dakota Century Code section 43-62-14.
2. The applicant biennially shall complete the continuing education.
3. The applicant shall complete a criminal history record check as required in section 114-03-02-01.
4. Otherwise the applicant shall meet the unique licensure or practice standard requirements established by the board under subsection 7 of North Dakota Century Code section 43-62-14.
5. The expiration date of the license must be consistent with the two-year cycle. An applicant who is licensed after September first in the second year of a two-year cycle, must be issued a license that expires at the conclusion of the following two-year cycle.

**History:** Effective April 1, 2018.

**General Authority:** NDCC 43-62

**Law Implemented:** NDCC 12-60-24, 43-62-14(6)

**114-02-03-01.1. Limited x-ray machine operator in nonlicensure state endorsement requirements.**

1. A limited x-ray machine operator in another jurisdiction that regulates the profession but does not license, may apply for licensure by endorsement. The applicant may not have an

encumbered license or other restricted practice in any jurisdiction, shall meet board requirements, and shall submit the following:

- a. A completed endorsement application and pay the nonrefundable fee as required in chapter 114-01-03.
  - b. Verification of active practice as a limited x-ray machine operator from a department manager or employer that the individual has:
    - (1) Been practicing actively for three or more of the five years immediately preceding the endorsement application; and
    - (2) Been proven to be clinically competent in performing limited scope imaging examinations.
  - c. Otherwise the applicant shall meet the unique licensure or practice standard requirements established by the board.
2. The applicant biennially shall complete the continuing education.
  3. The applicant shall complete a criminal history record check as required in section 114-03-02-01.
  4. The expiration date of the license must be consistent with the two-year cycle. An applicant who is licensed after September first in the second year of a two-year cycle, must be issued a license that expires at the conclusion of the following two-year cycle.

**History:** Effective April 1, 2020.

**General Authority:** NDCC 43-62

**Law Implemented:** NDCC 12-60-24, 43-62-14(4)(6)

#### **114-02-03-02. Military spouses - Licensure.**

Military spouses may be licensed pursuant to the procedure outlines in North Dakota Century Code section 43-51-11.1.

**History:** Effective April 1, 2018; amended effective April 1, 2020.

**General Authority:** NDCC 43-62

**Law Implemented:** NDCC 12-60-24, 43-51-11.1

**CHAPTER 114-02-05**  
**RECOGNIZED CERTIFICATION OF ORGANIZATIONS AND CREDENTIALS**

Section

114-02-05-01 Recognized Certification Organizations and Credentials

**114-02-05-01. Recognized certification organizations and credentials.**

The applicant's licensing title must be on the certificate including all modalities in which the licensee holds current certification and registration. The board recognizes the following certification organizations and their credentials:

1. American registry for diagnostic medical sonography (ARDMS);
2. American registry of magnetic resonance imaging technologists (ARMRIT);
3. American registry of radiologic technologists (ARRT);
4. Canadian association of medical radiation technologists (CAMRT);
5. Cardiovascular credentialing international (CCI);
6. Certification board of radiology practitioner assistants (CBRPA);
7. International society for clinical densitometry (ISCD);
8. Nuclear medicine technology certification board (NMTCB);
9. Sonography Canada; and
10. Other successor organizations as recognized by the board.

**History:** Effective April 1, 2018; amended effective April 1, 2020.

**General Authority:** NDCC 43-62

**Law Implemented:** NDCC 43-62-09, 43-62-14

**ARTICLE 114-03  
DISCIPLINARY ACTION**

Chapter	
114-03-01	Disciplinary Process
114-03-02	Criminal History Record Checks for Licensure

**CHAPTER 114-03-01  
DISCIPLINARY PROCESS**

Section	
114-03-01-01	Definitions
114-03-01-02	Applicant Statement
114-03-01-03	Reporting Violations
114-03-01-04	Investigations
114-03-01-05	Evidence and Evaluation of Treatment
114-03-01-06	Disposition
114-03-01-07	Cease and Desist Order
114-03-01-08	Board Decision
114-03-01-09	Application for Relicensure
114-03-01-10	Practice Without a Current License

**114-03-01-01. Definitions.**

The terms used in this title have the same meaning as in North Dakota Century Code chapter 43-62 and apply to title 114 unless the context indicates otherwise.

1. "Acts or omissions" means patterns of unsafe behavior, practice deficits, failure to comply with acceptable standards of practice, or grounds for discipline identified in North Dakota Century Code chapter 43-62 or this title.
2. "Cease and desist" means an order directing a licensee or applicant, or any other individuals to halt purportedly unlawful activity ("cease") and not take it up again later ("desist").
3. "Denial" means the board's refusal to issue or renew a current license.
4. "Incompetence" means conduct that deviates from scope of practice approved by the board.
5. "Impaired" means the ability to practice safely has been affected by the use or abuse of alcohol or other drugs, psychiatric or physical disorders, or practice deficiencies.
6. "Letter of censure" means a formal action against a licensee or applicant whose practice does not meet the acceptable standards of practice.
7. "Major incident" means an act or omission in violation of North Dakota Century Code chapter 43-62, or this title, which indicates an applicant or licensee continuing to practice poses a high risk of harm to the patient.
8. "Minor incident" means an act or omission in violation of North Dakota Century Code chapter 43-62, or this title, which indicates an applicant or licensee's continuing to practice poses a low risk of harm to the patient.
9. "Misappropriation of property" means the patterned or knowing, willful, or intentional misplacement, exploitation, taking, or wrongful, temporary, or permanent use of a patient's, employer's, or any other person's or entity's belongings, money, assets, or property without consent.

10. "Neglect" means a disregard for and departure from the standards of care which has or could have resulted in harm to the patient.
11. "Practice deficiency" means a practice activity that does not meet the standards of medical imaging and radiation therapy practice.
12. "Probation" means restrictions, requirements, or limitations placed against a licensee through monitoring for a prescribed period of time.
13. "Professional boundaries" means the provision of services within the limits of one of the modalities and patient relationship which promote the patient's dignity, independence, and best interests, and refrain from inappropriate involvement in the patient's or patient's family personal relationships.
14. "Professional-boundary violation" means a failure of a licensee to maintain appropriate boundaries with a patient, patient family member, or other health care provider.
15. "Professional misconduct" means any practice or behavior that violates the applicable standards governing the individual's practice necessary for the protection of the public health, safety, and welfare.
16. "Relicensure" means renewal, reinstatement, or reissuance of a license or registration.
17. "Revocation" means the withdrawal by the board of the licensee's right to practice for a specified length of time of no less than one year. If no specified length of time is identified by the board, revocation is permanent.
18. "Suspension" means withholding by the board of the license of the right to practice medical imaging and radiation therapy for a specified or indefinite period of time.

**History:** Effective April 1, 2018.

**General Authority:** NDCC 43-62

**Law Implemented:** NDCC 43-62-09

**114-03-01-02. Applicant statement.**

1. If an applicant for initial or renewal of licensure has been arrested, charged, or convicted of a misdemeanor or felony offense, an applicant shall provide the necessary information for the board to determine the bearing upon that person's ability to perform as a licensed medical imaging and radiation therapy professional.
2. Upon receipt of evidence of sufficient rehabilitation as outlined in North Dakota Century Code section 12.1-33-02.1, the board may issue a license.
3. If the board believes the information does not substantiate sufficient rehabilitation, the applicant may request a hearing pursuant to North Dakota Century Code chapter 28-32.

**History:** Effective April 1, 2018.

**General Authority:** NDCC 12.1-33-02.1, 43-62

**Law Implemented:** NDCC 43-62-09(12), 43-62-19(15)

**114-03-01-03. Reporting violations.**

Licensees, applicants, or citizens may use the following process to report any knowledge of acts or omissions by an individual that may violate North Dakota Century Code chapter 43-62 or this title:

1. Minor incident:



- a. If the act or omission meets the criteria for management of a minor incident, the applicant or licensee, should be aware of and follow the established policy within the practice setting for minor incidents. The established policy in the licensee's practice setting should detect patterns of unsafe behavior that may be considered minor incidents and take corrective action resulting in safe practice.
  - b. May be handled in the practice setting with a corrective action process if all the following factors exist:
    - (1) Potential risk of harm to others is low;
    - (2) There is no pattern of recurrence;
    - (3) The licensee exhibits evidence of remediation and adherence to standards of practice; and
    - (4) The corrective action process results in the licensee possessing the knowledge, skills, and abilities to practice safely.
  - c. Other factors may be considered in determining the need to report the incident, such as the significance of the event in the particular practice setting, the situation in which the event occurred, and the presence of contributing or mitigating circumstances in the system.
  - d. Nothing in this rule is intended to prevent reporting of a minor incident or potential violation directly to the board.
2. Major incident. If the act or omission is a major incident or factors are present which indicate a duty to report the licensee or applicant, the licensee's or applicant's supervisor or employer shall report the alleged violation to the board in the manner and form provided by the board. The report should include requested information about the act or omission, the individuals involved, and the action taken within the practice setting.
  3. Termination of employment. When a licensee or applicant terminates from the practice setting, either voluntarily or by request, due to conduct that may be grounds for discipline under the medical imaging and radiation therapy practices act or this title, a report must be made to the board by the licensee or applicant, and may be reported by the employer or supervisor in the manner and form provided by the board.
  4. Self-reporting. A licensee or applicant shall provide written notice of explanation and a copy of the applicable documents to the board within thirty days from the date of any criminal, malpractice, administrative, civil, or disciplinary action in this or any other jurisdiction, or a certification organization, or any other action taken against the licensee or applicant for any conduct that may affect patient safety or otherwise relates adversely to the practice of medical imaging and radiation therapy. This includes failure to complete applicable continuing education requirements or other applicable certification organization requirements for maintenance of the licensee's or applicant's registration and certification.

**History:** Effective April 1, 2018.

**General Authority:** NDCC 43-62

**Law Implemented:** NDCC 43-62-09(7)(8), 43-62-19(15)

#### **114-03-01-04. Investigations.**

Complaints, requests for investigation, and reports of acts or omissions that are in violation of North Dakota Century Code chapter 43-62, or this title, must be investigated by the board or by its direction to determine whether sufficient grounds exist to file a complaint according to North Dakota Century Code

chapter 28-32. The board or its investigative panel may subpoena witnesses, records, and any other evidence relating to the investigation. Any protected health information that is obtained by the board is an exempt record as defined in North Dakota Century Code section 44-04-17.1.

**History:** Effective April 1, 2018.

**General Authority:** NDCC 43-62

**Law Implemented:** NDCC 43-62-09(7), 43-62-11, 43-62-19(15)

#### **114-03-01-05. Evidence and evaluation of treatment.**

1. The board may require the individual subject to an investigation to submit to a mental health, chemical dependency, or physical evaluation if, during the course of the investigation, there is reasonable cause to believe that any licensee or applicant is unable to practice with reasonable skill and safety or has abused alcohol or drugs.
2. The board may require a copy of the evaluation to be submitted from the evaluating professional directly to the board.
  - a. Upon failure of the licensee or applicant to submit to the evaluation within thirty days of the request, the board may suspend the licensee's license or deny or suspend consideration of any pending application until the licensee or applicant submits to the required evaluation.
  - b. The licensee or applicant shall bear the cost of any mental health, chemical dependency, or physical evaluation and treatment required by the board.
  - c. The board may suspend or revoke an individual's license if it is determined the individual is unsafe to practice. The suspension or revocation remains in effect until the individual demonstrates to the satisfaction of the board the ability to safely return to the practice.
  - d. The board may deny the individual's application for licensure if it is determined the individual is unsafe to practice. The denial remains in effect until the individual demonstrates to the satisfaction of the board the ability to safely practice.
3. Any protected health information that is obtained by the board is an exempt record as defined in North Dakota Century Code section 44-04-17.1.

**History:** Effective April 1, 2018.

**General Authority:** NDCC 43-62

**Law Implemented:** NDCC 43-62-09(13), 43-62-11, 43-62-19(3)(4)

#### **114-03-01-06. Disposition.**

1. Investigation may result in one of the following:
  - a. Informal resolution and disposition by the board.
  - b. Formal resolution and disposition by the board:
    - (1) The board may use an administrative law judge to preside over the entire administrative proceeding and prepare recommended findings of fact, conclusions of law, and recommended order for board consideration; or
    - (2) The board may use a procedural hearing officer for the conduct of the hearing at which a majority of board members must be present at the hearing.
2. Dismissal. If the board's investigative panel determines the alleged violation is frivolous, would not constitute grounds for disciplinary action, is outside the jurisdiction of the board, or is

otherwise inappropriate for board action, the complainant and the affected licensee must be notified in writing that the board will not pursue the matter, stating the grounds for the decision;

3. Referral to another agency; or
4. Other action as directed by the board.

**History:** Effective April 1, 2018.

**General Authority:** NDCC 28-32, 43-62

**Law Implemented:** NDCC 43-62-09, 43-62-18, 43-62-19(7), 43-62-20

#### **114-03-01-07. Cease and desist order.**

When it appears by credible evidence that a cease and desist order is necessary, the president of the board or the authorized designee, after consultation with the office of the attorney general, may issue an order directing a licensee, applicant, or any other individual practicing medical imaging and radiation therapy in violation of North Dakota Century Code chapter 43-62, or this title, to cease and desist certain actions.

**History:** Effective April 1, 2018.

**General Authority:** NDCC 43-62

**Law Implemented:** NDCC 43-62-09(14)

#### **114-03-01-08. Board decision.**

The final decision must be adopted by a majority of a quorum of the board and must include findings of fact, conclusions of law, and an order. The decision of the board to impose or modify any restrictions upon the licensee or the licensee's practice or to reinstate a license must be communicated to the licensee in the form of a board order. If a licensee is authorized to practice in more than one modality of medical imaging and radiation therapy, the board order applies to all modalities. In addition to the terms and conditions imposed by the board, the following may apply:

1. Revocation of license. If the board issues a revocation order, the board also may prescribe the specific actions necessary for the relicensure of the individual. The certification process may be waived by the board as a condition for the relicensure of a previously revoked license. The initial licensure fee must be assessed for the relicensure of a revoked license. The time frame of revocation must be set in the order of the revocation or if not set it will be five years from the date of the board order.
2. Suspension of license. If the board issues a suspension order, the board also may prescribe the length of suspension and specific actions necessary for the relicensure of the individual. An individual whose license is suspended may request relicensure by the board at any regularly scheduled meeting following the conclusion of the time period specified in the order. The current renewal fee must be required for relicensure of a suspended license.
3. Probation. If the board issues a probation order, the board may prescribe the length of probation and specific actions necessary for successful completion of the probation. The license must be designated in the board's records as "probation" or as the board may otherwise require. If a licensee is authorized to practice in more than one modality of medical imaging and radiation therapy, the probation applies to all modalities.
4. Denial. If the board issues an order to refuse to issue or renew a current license for cause, the board also may prescribe the specific action necessary for the issuance or the reissuance of the license.
5. Letter of censure. The board may issue a letter of censure as formal action against an applicant or licensee whose practice does not meet the acceptable standards of practice.

6. Imposition of a penalty. The board may levy a penalty against an individual who has knowingly practiced medical imaging or radiation therapy without proper authorization or who has jeopardized public health, safety, or welfare.
7. Conditional dismissal. The board may impose terms and conditions for the individual to meet and upon compliance the complaint will be dismissed.

**History:** Effective April 1, 2018.

**General Authority:** NDCC 43-62

**Law Implemented:** NDCC 43-62-18

**114-03-01-09. Application for relicensure.**

1. An individual whose license has been suspended or revoked by the board may:
  - a. Request a written application for relicensure in the manner and form required by the board at the conclusion of the time period specified in the order;
  - b. Pay the nonrefundable reinstatement fee and an application fee as required in chapter 114-01-03 for an application for relicensure of a suspended or revoked license. The burden of proof is on the licensee to prove to the satisfaction of the board that the condition that led to a sanction no longer exists or no longer has a material bearing on the licensee's professional ability; and
  - c. Schedule an appearance for the next board meeting if received at least thirty days prior.
2. The board may:
  - a. Consider the written application for relicensure at the next regularly scheduled board meeting.
  - b. Schedule a vote for relicensure.
  - c. Impose reasonable terms and conditions to be imposed prior to relicensure, or as a condition of relicensure. If the board denies relicensure, reasons for denial must be communicated to the applicant.

**History:** Effective April 1, 2018.

**General Authority:** NDCC 43-62

**Law Implemented:** NDCC 43-62-09, 43-62-18

**114-03-01-10. Practice without a current license.**

1. An individual who performs medical imaging or radiation therapy without proper authorization by the board is practicing without a license. The board may issue a cease and desist order, obtain a court order or injunction, or seek civil or criminal action or fines to halt the unlicensed practice, a violation of North Dakota Century Code chapter 43-62, or a violation of this title.
2. On or between January second and March first of the first year of the current license cycle, an individual seeking to renew a license who has failed to complete the licensure process within the required time period and has been found to have been practicing unintentionally without a current license is required to:
  - a. Submit a completed application and the nonrefundable fees as required in chapter 114-01-03; and
  - b. Complete all other licensure requirements as established by the board.

3. After March first of the first year of the current license cycle, an individual seeking to renew a license who has failed to complete the licensure process within the required time period and has been found to have been practicing unintentionally without a current license is required to:
  - a. Submit a completed application and the nonrefundable fees as required in chapter 114-01-03;
  - b. Complete a criminal history record check; and
  - c. Complete all other licensure requirements as established by the board.
4. The license of an individual who has failed to renew the license and unintentionally practiced without proper authorization is not authorized to practice until meeting all board requirements for licensure. The license remains lapsed until the board receives satisfactory evidence of successful completion of the requirements for licensure.
5. The licensee, who has a lapsed license and has been found to be intentionally practicing without a license, must be referred to the appropriate organization for investigation and possible prosecution.

**History:** Effective April 1, 2018.

**General Authority:** NDCC 43-62

**Law Implemented:** NDCC 12-60-24, 43-62-09, 43-62-21

**CHAPTER 114-03-02**  
**CRIMINAL HISTORY RECORD CHECKS FOR LICENSURE**

Section

114-03-02-01 Criminal History Record Checks

**114-03-02-01. Criminal history record checks.**

1. An applicant shall submit a set of fingerprints to the board or its agent for the purpose of obtaining a state and federal criminal history record check in the manner provided by North Dakota Century Code section 12-60-24 and as set forth by the board.
2. An authorization and release form must be signed by the applicant authorizing the release of the criminal history record information to the board.
3. The fingerprint card, authorization and release form, and fee for the criminal history record check must be submitted upon application for licensure.
4. The following applicants shall submit to a criminal history record check:
  - a. Initial licensure;
  - b. Temporary or conditional licensure; and
  - c. License by endorsement.
5. The following applicants may be required to submit to a criminal history record check:
  - a. Renewal of a license; or
  - b. Relicensure.
  - c. An individual who is under investigation for violation of North Dakota Century Code chapter 43-62 or this title.
6. If a criminal history record check is required as part of a disciplinary investigation or proceeding, the fingerprint card, authorization and release form, and fee for the criminal history record check must be submitted by the licensee within twenty days of the board's request.

**History:** Effective April 1, 2018.

**General Authority:** NDCC 43-62

**Law Implemented:** NDCC 12-60-24, 43-62-09(11)

**CHAPTER 114-02-04**  
**RECOGNITION OF EDUCATION PROGRAMS AND STUDENT SUPERVISION**

Section

114-02-04-01 Recognition of Education Programs

114-02-04-02 Student Supervision

**114-02-04-01. Recognition of education programs.**

1. For the purpose of initial licensure to practice in medical imaging and radiation therapy modalities, the board shall recognize education programs that are accredited by one or more of the following national accreditation organizations:
  - a. Commission on accreditation of allied health education programs;
  - b. Commission on accreditation of the American registry of magnetic resonance imaging technologists;
  - c. Council of regional institutional accrediting commissions;
  - d. Joint review committee on education in radiologic technology; or
  - e. Joint review committee on education programs in nuclear medicine technology.
2. The board also may recognize an education program from another accreditation organization:
  - a. If the education program meets or exceeds the requirements set out in North Dakota Century Code section 43-62-14 and has clinical education equivalent in amount and time of the board-recognized programs.
  - b. Otherwise as approved by the board.

**History:** Effective April 1, 2018.

**General Authority:** NDCC 43-62

**Law Implemented:** NDCC 43-62-14(2)

**114-02-04-02. Student supervision.**

Students enrolled in and attending board-recognized education programs for a medical imaging and radiation therapy modality are exempt from the requirements of licensure by the board. Students only may perform medical imaging and radiation therapy procedures for the modality in which the student is enrolled. Students must be under the supervision of a licensed practitioner or a licensee who is licensed in the modality in which the student is enrolled.

**History:** Effective April 1, 2018.

**General Authority:** NDCC 43-62

**Law Implemented:** NDCC 43-62-03(03)

## Appendix 9-Oregon

<https://secure.sos.state.or.us/oard/viewSingleRule.action?ruleVrsnRsn=65924>

### Board of Medical Imaging Chapter 337

#### Division 1

#### PROCEDURAL RULES

#### 337-001-0000

##### Notice of Proposed Rule

Prior to the adoption, amendment, or repeal of any rule, the Oregon Board of Medical Imaging must give notice of the proposed adoption, amendment, or repeal:

- (1) In the Secretary of State's Bulletin referred to in ORS 183.360 at least 15 days prior to the effective date.
- (2) By mailing a copy of the Notice to persons on the Board's mailing list established pursuant to ORS 183.335(6).
- (3) By distributing a copy of the Notice to the following persons, organizations, or publications:
  - (a) American Registry of Radiologic Technologists;
  - (b) American Society of Radiologic Technologists;
  - (c) Oregon Society of Radiologic Technologists;
  - (d) Oregon Medical Association;
  - (e) Oregon Association of Hospitals;
  - (f) Oregon Association of Chiropractic Physicians;
  - (g) Oregon Association of Naturopathic Physicians;
  - (h) Oregon Osteopathic Association;
  - (i) Oregon Podiatry Association;
  - (j) Society of Nuclear Medicine;
  - (k) Pacific Northwest Society of Nuclear Medicine Technologists' Section;
  - (l) American Registry for Diagnostic Medical Sonography;
  - (m) American Society of Echocardiography;
  - (n) Cardiovascular Credentialing International;
  - (o) Society for Vascular Surgery;
  - (p) Society for Vascular Ultrasound;
  - (q) Society of Diagnostic Medical Sonography;
  - (r) Society of Invasive Cardiovascular Professionals;
  - (s) American Registry of Magnetic Resonance Imaging Technologists.

**Statutory/Other Authority:** ORS 183

#### LICENSURE

#### 337-010-0006

##### Definitions

For purposes of ORS 688.405 to 688.605 and these rules:

- (1) The "Practice of Medical Imaging" shall be defined as but not limited to the use of ionizing radiation, ultrasound, radio waves or magnetic fields upon human anatomy for diagnostic or therapeutic purposes including the physical positioning of the patient, the determination of exposure parameters, and the handling of the ionizing radiation equipment.
- (2) "Application" means documentation submitted to the board for a license or permit, including the board's application form and any required documentation that is specified in the application instructions. An application is considered incomplete if the form or any of the required documentation or fees are not provided. An incomplete application is deemed to be voluntarily withdrawn six months from the date of receipt in the board office.
- (3) "Approved school" means a school accredited in one of the medical imaging modalities or subspecialties by a national or regional post-secondary accreditation body and whose graduates are qualified to sit for a credentialing examination recognized by the Board of Medical Imaging in the graduate's medical imaging modality or subspecialty.
- (4) "Board" means board of medical imaging.
- (5) "Clinical instructor" means an individual assigned to supervise students in a clinical setting who is:
  - (a) A licensed physician who routinely supervises the medical imaging modality being studied by a student; or



- (b) An individual licensed by the board and credentialed by a credentialing organization in the medical imaging modality being studied by a student.
- (6) "Credential" means the recognition awarded to an individual who meets the requirements of a credentialing organization.
- (7) "Credentialing organization" means a nationally recognized organization that issues credentials through testing or evaluations that determine that a person meets defined standards for training and competence in a medical imaging modality.
- (8) "Diagnostic medical sonography" means the use of nonionizing high frequency sound waves with specialized equipment to direct the sound waves into areas of the human body to generate images for the assessment and diagnosis of various medical conditions.
- (9) "Extremity Computed Tomography Machine" (ECT) means a machine that is specifically designed, with a maximum setting of 120kVp at 60 mAs, to perform computed tomography (CT) exams on extremities only. For the purpose of extremity computed tomography only, "extremity" includes the following body parts:
- (a) Lower extremities including: toe; foot; calcaneus; ankle; tibia; fibula; knee; patela; and distal femur.
- (b) Upper extremities including: finger; hand; wrist; forearm; elbow; and distal humerus.
- (10) "Fluoroscopy" means a technique for generating X-ray images and for presenting the X-ray images simultaneously and continuously as a visible image.
- (11) "Graduate" means an individual who has completed the didactic and clinical education at an approved school, including documented clinical proficiency, but who has not met all requirements for credentialing by a credentialing organization.
- (12) "Hybrid imaging or radiation therapy equipment" means equipment that combines more than one medical imaging modality into a single device.
- (13) "Ionizing radiation" means alpha particles, beta particles, gamma rays, X-rays, neutrons, high-speed electrons, high-speed protons or other particles capable of producing ions. "Ionizing radiation" does not include radiation such as radiofrequency or microwaves, visible, infrared or ultraviolet light or ultrasound.
- (14) "License" means a license issued by the board to practice one or more of the medical imaging modalities.
- (15) "Licensed nurse practitioner" means a nurse practitioner licensed in Oregon.
- (16) "Licensed physician" means a physician or surgeon licensed in Oregon.
- (17) "Licensed physician assistant" means a physician assistant licensed in Oregon.
- (18) "Limited X-ray machine operator" means a person other than a licensed physician who performs diagnostic X-ray procedures under the supervision of a licensed physician, a licensed nurse practitioner or a licensed physician assistant using equipment that emits external ionizing radiation resulting in diagnostic radiographic images that are limited to select human anatomical sites.
- (19) "Limited X-ray machine operator course of study" means a board-approved set of didactic and clinical experience elements designed to prepare a person for gaining practical experience and for passing the limited X-ray machine operator examination.
- (20) "Magnetic resonance imaging" means the process by which certain nuclei, when placed in a magnetic field, absorb and release energy in the form of radio waves that are analyzed by a computer thereby producing an image of human anatomy and physiological information.
- (21) "Medical physicist" is a person who is certified in diagnostic radiological physics or radiological physics by the American Board of Radiology, or in diagnostic imaging physics by the American Board of Medical Physics, or in diagnostic radiology physics by the Canadian College of Physicists in Medicine.
- (22) "Medical imaging" means the use of specialized equipment for the production of visual representations of human anatomy, tissues or organs for use in clinical diagnosis and treatment and includes but is not limited to X-ray, single photon emission, positron emission technology, ultrasound, magnetic fields, visible light and radio waves.
- (23) "Medical imaging licensee" means a person other than a licensed physician or a limited X-ray machine operator who holds a valid license and operates medical imaging equipment for diagnostic or therapeutic purposes under the supervision of a licensed physician.
- (24) "Medical imaging modality" means:
- (a) Diagnostic medical sonography and all its subspecialties;
- (b) Magnetic resonance imaging and all its subspecialties;
- (c) Nuclear medicine technology and all its subspecialties;
- (d) Radiation therapy and all its subspecialties; or
- (e) Radiography and all its subspecialties.

(25) "Nuclear medicine technology" means the specialized equipment that measures radiation emitted by radionuclides, including counters and cameras that form medical images for interpretation by a physician, or assists in therapeutic use of radionuclides.

(26) "Physician Assistant" means a person who is licensed in accordance with ORS 677.505 to 677.525.

(27) "Radiographer" means a person other than a licensed physician who performs a comprehensive set of diagnostic radiographic procedures under the supervision of a licensed physician using external ionizing radiation to produce radiographic, fluoroscopic or digital images.

(28) "Radiography" means the use of ionizing radiation to produce radiographic, fluoroscopic or digital images of human anatomy for diagnostic purposes.

(29) "Radiologist" means a person licensed to practice medicine in the State of Oregon who is certified by or board eligible for certification by the American Board of Radiology, the American Osteopathic Association, the Royal College of Radiologists or the Royal College of Physicians and Surgeons of Canada.

(30) "Student" means an individual enrolled in:

(a) An approved school, college or university academic training program in medical imaging; or

(b) A limited X-ray machine operator course of study.

(31) "Supervision" means the act of monitoring and reviewing the performance of medical imaging licensees or limited X-ray machine operators through regular inspections of work produced, regardless of whether the supervising individual is continuously physically present during the [performance] use of medical imaging equipment or X-ray equipment.

(32) "Positioning" is the act of placing the patient in the standard or appropriate position for a medical imaging examination or radiation therapy based on the medical condition of patient.

**Statutory/Other Authority:** ORS 183.310(7) & 688.555

**Statutes/Other Implemented:** ORS 688.415 - 688.605 & 688.915

### **337-010-0007**

#### **Recognized Credentialing Organizations and Credentials**

Licensees will be recognized on their licenses with listing of their major modality and all sub-specialties for which they have been certified. Currently recognized subspecialties are listed as follows under each credentialing organization:

(1) American Registry for Diagnostic Medical Sonographers (ARDMS)

(a) Registered Diagnostic Medical Sonographer — RDMS

(b) Registered Diagnostic Cardiac Sonographer — RDCS

(c) Registered Vascular Technologist — RVT

(d) Registered Musculoskeletal Sonographer — RMSKS

(d) The following specializations under the main categories above will also be listed as provided by the ARDMS, subject to change:

(A) AB — Abdomen.

(B) AE — Adult Echocardiography.

(C) BR — Breast Specialty.

(D) FE — Fetal Echocardiography.

(E) MSKS — Musculoskeletal Sonographer.

(F) NE — Neurosonology.

(G) OB — Obstetrics & Gynecology.

(H) PE — Pediatric Echocardiography.

(I) VT — Vascular Technology.

(J) PS — Pediatric Sonography.

Example: John Doe, RDMS (AB, OB), RDCS (AE, PE).

(2) American Registry of Magnetic Resonance Imaging Technologists (ARMRIT) Primary designation: MRI No sub-specialties

Example: John Doe MRIT (ARMRIT).

(3) American Registry of Radiologic Technologists (ARRT). An ARRT certificate confers upon its holder the right to use the title "Registered Technologist" and its abbreviation "R.T.(ARRT)" or "Registered Radiologist Assistant" and its abbreviation "R.R.A. (ARRT)" in connection with his or her name as long as the registration of the certificate is in effect. The category designation should be inserted between the "R.T." and the "(ARRT)" and should be shown as "R.T.(\*)(ARRT)" where the asterisk is replaced by the letter or letters indicated in the list below:

(a) (R) For Radiography.

- (b) (N) For Nuclear Medicine Technology.
  - (c) (T) For Radiation Therapy.
  - (d) (MR) For Magnetic Resonance Imaging.
  - (e) (S) For Sonography.
  - (f) (CV) For Cardiovascular-Interventional Radiography.
  - (g) (M) For Mammography.
  - (h) (CT) For Computed Tomography.
  - (i) (QM) for Quality Management.
  - (j) (BD) For Bone Densitometry.
  - (k) (VS) For Vascular Sonography.
  - (l) (CI) For Cardiac-Interventional Radiography.
  - (m) (VI) For Vascular-Interventional Radiography.
  - (n) (BS) For Breast Sonography.
- Example: Joe Doe RT (R) (ARRT).

(4) Certification Board of Radiology Practitioner Assistants (CBRPA) "Radiology Practitioner Assistant" (R.P.A.)  
An RPA means an American Registry of Radiologic Technologists (A.R.R.T.) technologist who has successfully completed an advanced training program and is certified by the CBRPA.

Example: Jane Doe RT (ARRT) (RPA) (CBRPA).

(5) Cardiovascular Credentialing International (CCI).

- (a) ACS — Sonography — Advanced Cardiac Sonographer.
- (b) CCT — Angiography — Certified Cardiographic Technician.
- (c) RCCS — Sonography — Registered Congenital Cardiac Sonographer.
- (d) RCES — Angiography — Registered Cardiac Electrophysiology Specialist.
- (e) RCIS — Angiography — Registered Cardiovascular Invasive Specialist.
- (f) RCS — Sonography — Registered Cardiac Sonographer.
- (g) RPhS — Sonography — Registered Phlebology Sonographer.
- (h) RVS — Sonography — Registered Vascular Specialist.

Example: Jane Doe RCES (CCI).

(6) Nuclear Medicine Technology Certification Board (NMTCB) Primary certification: Nuclear Medicine Technologist — CNMT. Sub-specialties:

- (a) Nuclear Cardiology — NCT.
- (b) Positron Emission Tomography — PET.
- (c) Computed Tomography — CT.

Example: John Doe NMT, NCT (NMTCB).

**Statutory/Other Authority:** ORS 688.555(1)

**Statutes/Other Implemented:** ORS 688.425(1)

### **337-010-0009**

#### **Change of Credentialing or License Status**

Every licensee or permittee must:

- (1) Maintain credentialing in their licensed specialty throughout the licensure period
- (2) Notify the Board within 30 days of any pending or final actions by the credentialing organization against the licensee.
- (3) Notify the Board within 30 days of lapse or suspension of any professional license.

**Statutory/Other Authority:** ORS 688.555(1)

**Statutes/Other Implemented:** 688.455

### **337-010-0014**

#### **Qualifications of Diagnostic Medical Sonographer**

An individual who operates ultrasound equipment for medical imaging purposes must submit evidence of current credentialing in diagnostic medical sonography from the American Registry of Diagnostic Medical Sonography (ARDMS), American Registry of Radiologic Technologists (ARRT), or Cardiac Credentialing International (CCI). The Board will verify current credential status through review of the ARDMS, ARRT or CCI directory. If the applicant is not listed in the current applicable directory, he or she must request written verification of current credential be submitted directly to the Board by their credentialing organization.

**Statutory/Other Authority:** ORS 688.555(1 )  
**Statutes/Other Implemented:** ORS 688.455

### **337-010-0025**

#### **Continuing Education**

Licenses must comply with all continuing education and continuing competency requirements of the applicable credentialing organization by submitting their annual registration.

**Statutory/Other Authority:** ORS 688.555(1)  
**Statutes/Other Implemented:** ORS 688.505

### **337-010-0045**

#### **Temporary Licensee**

##### **(1) Temporary License**

- (a) Students who have successfully completed, or will successfully complete within six months, an approved school's didactic and clinical programs may apply for a temporary license that will be effective upon completion of the approved school's program.
- (b) A temporary license is intended to allow graduates of an approved school to gain additional paid medical imaging experience in the applicable imaging modality before completing required credentialing examinations.
- (c) With an endorsement to OBMI from the medical imaging program director at a student's school, indicating that the student is in good standing and is in the process of meeting educational requirements for graduation on a date specified, and that the student is competent to work under supervision, a temporary license may be issued which will be valid up to five months prior to the specified course completion date.
- (d) A temporary license is valid for 6 months and may be renewed for a single six-month renewal period upon Board approval.
- (e) A temporary licensee must apply to the Board for a medical imaging license within 30 days of being awarded a credential in a medical imaging modality by a recognized credentialing organization.
- (f) If a temporary licensee is also licensed by the Board in another medical imaging modality, the restrictions of this subsection shall only apply when the individual is functioning as a temporary licensee.

(2) **Temporary Licensee Supervision.** A temporary licensee may only operate the applicable medical imaging modality under the indirect supervision of a licensed physician, or an individual licensed by the Board and credentialed by a credentialing organization in the medical imaging modality identified on the temporary license. For purposes of this subsection, indirect supervision means that the supervisor is physically present in the building and available to assist the temporary licensee as needed.

##### **(3) Temporary License to add modality through post-primary pathway:**

- (a) The post-primary license is intended for current licensees who are completing clinical requirements necessary to add a different licensure modality to their current license. Supervision must be provided by a physician or technologist fully licensed to practice in the same modality as the post-primary license. All practice completed under the post-primary license must be specific to the modality on the post-primary temporary license and must be applicable to the post-primary licensee's clinical requirements for the licensure modality being added.
- (b) A post-primary temporary license is valid for six months and may be renewed for a single six-month period upon Board approval. In addition, the license issued under this subsection may be permitted to have extended license renewals for up to two additional six-month periods based upon a showing of good cause, upon application for each six month extension renewal, demonstrating that the credentialing registry's clinical requirements cannot be completed within the prescribed timeframe due to limitations of the clinical practice site. Provisional licensees may apply and receive a temporary post-provisional license in the same modality for which they were issued a provisional license.
- (c) **Levels of supervision for post-primary temporary license:** For purposes of this subdivision, post-primary temporary licensees must receive direct supervision for at least the initial six months of the license duration, with indirect supervision for the remaining period of licensure. For purposes of this subdivision, direct supervision means that the supervisor is physically present with the temporary licensee and patient. Indirect supervision has the same meaning as Paragraph (2).
- (d) **Application process:** As part of the application for a post-primary temporary license, the applicant must provide documentation that the applicant has completed a minimum of 16 hours of category "A" content-related education. The Board may require confirmation of clinical supervision and clinical practice site, and may limit the post-primary temporary licensee to one or more specific practice sites. The Board may require confirmation that the applicant is

eligible for credentialing in the new modality, if the relevant clinical experience requirements are met, and may deny an application based upon a lack of evidence of eligibility.

(e) Educational Plan: The supervising institution shall provide an outline of the training provided to each licensee under this subsection. The outline must be individualized for each licensee and must identify authorized institutional personnel who will supervise the licensee. This outline must be submitted with the application. As part of the application process, the Board may consult with the institution and may require revisions to the educational plan.

(4) Temporary Computed Tomography (CT) License: Technologists with active OBMI licensure in radiography, radiation therapy or nuclear medicine who are in the process of obtaining CT experience in order to sit for a CT credentialing examination shall first obtain a temporary license from the Board while they perform their CT competencies under this section. Competencies shall be performed under supervision of a licensed physician or credentialed CT technologist who is at least physically present in the building and available to assist the temporary licensee as needed. The Board may require documentation or confirmation of supervision and that a technologist who has a temporary license under this paragraph or who is applying for a temporary license under this paragraph is in the process of obtaining a CT credential under this paragraph, and may deny an application for a temporary license based upon the Board's determination that an applicant is not working toward a CT credential, does not have a realistic possibility of earning the CT credential, or that the applicant does not have the required supervision. As a condition of holding a temporary CT license, the board may require temporary CT license holders to file periodic reports with the board, including information the board seeks to determine progress toward completing clinical requirements.

(a) Education prerequisite: As part of the application for a temporary CT license, the applicant must provide documentation of a minimum of eight (8) hours of Category "A" didactic education in CT and eight (8) hours of Category "A" didactic training in cross sectional anatomy. These hours must have been earned within the 24-month period directly preceding submission of the application.

(b) Duration of temporary CT license: A temporary CT license is valid for six months and may be renewed for a single six-month period upon Board approval. In addition, the license issued under this subsection may be permitted to have extended license renewals for up to two additional six-month periods based upon information the applicant provides to support the request for an extension. The board may make a ruling on the application for extended temporary CT licensure based upon factors including but not limited to a review and evaluation of information submitted by the applicant, which must minimally include:

(A) Documentation that the credentialing registry's clinical requirements cannot be completed within the prescribed timeframe due to limitations of the applicant's clinical practice site; and

(B) The applicant's written plan regarding how the applicant expects to meet the prerequisites to sit for the registry exam, including information to confirm how many prerequisites have already been completed and will be eligible for inclusion as registry prerequisites.

(5) The board, at its discretion and upon a showing of good cause, upon request submitted to the Board, may extend specific deadlines established in this section to a later specified date, based upon a demonstration of compelling circumstances by the individual making the request for an extension. The Board may grant an extension that is based upon factors including but not limited to pregnancy, military service, or disability. This provision only applies to time limitations established by the board, and cannot be applicable to time limitations governed by entities other than the board or that are otherwise governed by statute. The extension may be provided through authorization for an additional temporary license for a period of time specified by the board.

Statutory/Other Authority: ORS 688.555

Statutes/Other Implemented: ORS 688.520(7)

Division 20

BIRTHDAY MONTH RENEWAL

337-020-0015

Timely Renewal of Medical Imaging Licenses and Permits — Permanent

(1) Before the expiration date of a license or permit, the Board will, as a courtesy, mail or email notice for renewal of license or permit to the last address on file in the Board's records to every person holding a current license or permit.

- (2) An applicant for renewal of a license or permit must accurately complete the renewal form and pay the applicable licensing fee.
- (3) An OBMI license or permit renewal application must be received by OBMI 30 days before a license or permit expires.
- (4) A license or permit expires biennially on the first day of the birth month of the licensee.
- (5) No person is allowed to practice after a license or permit expires.
- (6) No applicant for initial or renewal licensure may practice medical imaging until s/he has received a certificate of licensure, either a license or a permit, from the Board.
- (7) No person who has allowed his or her license or permit to expire may practice medical imaging until s/he has renewed or reinstated a license or permit and has received a certificate of licensure from the Board.

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