Advisory Board on Radiological Technology

Virginia Board of Medicine

May 22, 2019

1:00 p.m.

Advisory Board on Radiologic Technology

Board of Medicine
Wednesday, May 22, 2019 @ 1:00 p.m.
9960 Mayland Drive, Suite 201, Henrico, VA
Training Room 2

Page

Call to Order – Joyce Hawkins, RT, Vice-Chair

New Business

Announcements

Adjournment

Next Scheduled Meeting October 2, 2019 @ 1:00 p.m.

PERIMETER CENTER CONFERENCE CENTER
EMERGENCY EVACUATION OF BOARD AND TRAINING ROOMS
(Script to be read at the beginning of each meeting.)

PLEASE LISTEN TO THE FOLLOWING INSTRUCTIONS ABOUT EXITING THESE PREMISES IN THE EVENT OF AN EMERGENCY.

In the event of a fire or other emergency requiring the evacuation of the building, alarms will sound.

When the alarms sound, leave the room immediately. Follow any instructions given by Security staff

Training Room 2

Exit the room using one of the doors at the back of the room. (**Point**) Upon exiting the doors, turn **LEFT.** Follow the corridor to the emergency exit at the end of the hall.

Upon exiting the building, proceed straight ahead through the parking lot to the fence at the end of the lot. Wait there for further instructions.

---DRAFT UNAPPROVED ---

ADVISORY BOARD ON RADIOLOGIC TECHNOLOGY
Virginia Board of Medicine
January 23, 2019, 1:00 p.m.

The Advisory Board on Radiologic Technology met on Wednesday, January 23, 2018 at 1:00 p.m. at the Department of Health Professions, Perimeter Center, 9960 Mayland Drive, Richmond, Virginia.

MEMBERS PRESENT:	Joyce O. Hawkins, RT, Chair Rebecca Keith, RT David Roberts, RT William E. Quarles, Jr., Citizen
MEMBERS ABSENT:	Uma Prasad, MD
STAFF PRESENT:	William L. Harp, M.D., Executive Director Colanthia Opher Morton, Deputy Director, Administration Elaine Yeatts, DHP Senior Policy Analyst Beulah Baptist Archer, Licensing Specialist
GUESTS PRESENT:	Jessica Hutchings Mark Crosthwaite, VCU, Associate Professor and Program Director of Nuclear Medicine, Department of Radiation Sciences

CALL TO ORDER

Joyce Hawkins called meeting to order at 1:00 p. m.

EMERGENCY EGRESS PROCEDURES - Dr. Harp gave the emergency egress procedures.

ROLL CALL – Beulah Archer called the roll. A quorum was established.

APPROVAL OF MINUTES – January 31 and October 3, 2018

Mr. Quarles moved to approve minutes. The motion was seconded and carried.

ADOPTION OF AGENDA

Dr. Harp asked the Advisory Board to amend the agenda with this item to discuss and approve a non-ACRRT approved chiropractic program taught by Eugene A. Lewis, DC, M.P.H., under #4 of 18VAC85-101-55 '*Educational Requirements for radiologic technologist-limited*'.

Mr. Quarles motioned to amend the agenda. The motion seconded and carried.

PUBLIC COMMENT

Mark Crosthwaite discussed his concern and wish that Nuclear Medicine Technologists, under the 'umbrella' of Radiologic Technology, have distinguishing language placed on their rad tech license. Board staff indicated that this could probably be done by adding, "Qualified to Practice Nuclear Medicine Technology."

NEW BUSINESS

1. Orientation to the Work of the Advisory Board-William L. Harp, MD

Dr. Harp apprised the Advisory Board of its three primary functions that protect the public:

- License only qualified applicants
- Take disciplinary action for unprofessional conduct
- Promulgate strong regulations governing the practice of Radiologic Technology

2. Review of SB 1760 – 32.1-228.1 X-Ray Equipment, Inspection, and Manufacture Training– Elaine Yeatts

Mrs. Yeatts discussed concern that trusting the manufacturer of x-ray equipment to train non- radiologic technology personnel for 'non-diagnostic' assessments ultimately endangers the public, as it overrides the Virginia regulatory mandate for licensure when using equipment that emits ionizing radiation outside of a hospital environment.

3. Discussion Radiologic Technologist Categories and Possible Additions to the Regulations

The Advisory Board reviewed the various credentials issued by ARRT, and it was determined that the Board's regulations authorized it to license all categories. The issue Mr. Crosthwaite spoke to will be addressed at the policy level.

ANNOUNCEMENTS

No announcements

NEXT MEETING DATE

May 22, 2019, at 1:00 pm.

ADJOURNMENT

Ms. Hawkins adjourned the meeting.

Joyce Hawkins, RT Chair

William L. Harp, MD, Executive Director

Beulah Baptist Archer, Recording Secretary

Board of Medicine
Report of the 2019 General Assembly

HB 1952 Patient care teams; podiatrists and physician assistants.

Chief patron: Campbell, J.L.

Summary as passed House:

Patient care team podiatrist definition; physician assistant supervision requirements. Establishes the role of "patient care team podiatrist" as a provider of management and leadership to physician assistants in the care of patients as part of a patient care team. The bill modifies the supervision requirements for physician assistants by establishing a patient care team model. The bill directs the Board of Medicine to adopt emergency regulations to implement the provisions of the bill and is identical to SB 1209.

02/22/19 Governor: Acts of Assembly Chapter text (CHAP0137)

HB 1970 Telemedicine services; payment and coverage of services.

Chief patron: Kilgore

Summary as passed:

Telemedicine services; coverage. Requires insurers, corporations, or health maintenance organizations to cover medically necessary remote patient monitoring services as part of their coverage of telemedicine services to the full extent that these services are available. The bill defines remote patient monitoring services as the delivery of home health services using telecommunications technology to enhance the delivery of home health care, including monitoring of clinical patient data such as weight, blood pressure, pulse, pulse oximetry, blood glucose, and other condition-specific data; medication adherence monitoring; and interactive video conferencing with or without digital image upload. The bill requires the Board of Medical Assistance Services to include in the state plan for medical assistance services a provision for the payment of medical assistance for medically necessary health care services provided through telemedicine services. This bill is identical to SB 1221.

03/05/19 Governor: Acts of Assembly Chapter text (CHAP0211)

HB 1971 Health professions and facilities; adverse action in another jurisdiction.

Chief patron: Stolle

Summary as introduced:

Health professions and facilities; adverse action in another jurisdiction. Provides that the mandatory suspension of a license, certificate, or registration of a health professional by the Director of the Department of Health Professions is not required when the license, certificate, or registration of a health professional is revoked, suspended, or surrendered in another jurisdiction based on disciplinary action or mandatory suspension in the Commonwealth. The bill extends the time by which the Board of Pharmacy (Board) is required to hold a hearing after receiving an application for reinstatement from a nonresident pharmacy whose registration has been suspended by the Board based on revocation or suspension in another jurisdiction from not later than its next regular meeting after the expiration of 30 days from receipt of the reinstatement application to not later than its next regular meeting after the expiration of 60 days from receipt of the reinstatement application.

02/22/19 Governor: Acts of Assembly Chapter text (CHAP0138)

HB 2169 Physician assistants; licensure by endorsement.

Chief patron: Thomas

Summary as passed:

Physician assistants; licensure by endorsement. Authorizes the Board of Medicine to issue a license by endorsement to an applicant for licensure as a physician assistant who (i) is the spouse of an active duty member of the Armed Forces of the United States or the Commonwealth, (ii) holds current certification from the National Commission on Certification of Physician Assistants, and (iii) holds a license as a physician assistant that is in good standing, or that is eligible for reinstatement if lapsed, under the laws of another state.

03/12/19 Governor: Acts of Assembly Chapter text (CHAP0338)

HB 2184 Volunteer license, special; issuance for limited practice.

Chief patron: Kilgore

Summary as passed:

Volunteer dentists and dental hygienists. Removes certain requirements for dentists and dental hygienists volunteering to provide free health care for up to three consecutive days to an underserved area of the Commonwealth under the auspices of a publicly supported nonprofit organization that sponsors the provision of health care to populations of underserved people.

03/08/19 Governor: Acts of Assembly Chapter text (CHAP0290)

HB 2228 Nursing and Psychology, Boards of; health regulatory boards, staggered terms.

Chief patron: Bagby

Summary as introduced:

Composition of the Boards of Nursing and Psychology; health regulatory boards; staggered terms. Alters the composition of the Board of Nursing and replaces the requirement that the Board of Nursing meet each January with the requirement that it meet at least annually. The bill also removes specific officer titles from the requirement that the Board of Nursing elect officers from its membership. The bill replaces the requirement that a member of the Board of Psychology be licensed as an applied psychologist with the requirement that that position be filled by a member who is licensed in any category of psychology. The bill also provides a mechanism for evenly staggering the terms of members of the following health regulatory boards, without affecting the terms of current members: Board of Nursing, Board of Psychology, Board of Dentistry, Board of Long-Term Care Administrators, Board of Medicine, Board of Veterinary Medicine, Board of Audiology and Speech-Language Pathology, Board of Pharmacy, and Board of Counseling.

02/27/19 Governor: Acts of Assembly Chapter text (CHAP0169)

HB 2457 Medicine, osteopathy, podiatry, or chiropractic, practitioners of; inactive license, charity care.

Chief patron: Landes

Summary as passed:

Practitioners of medicine, osteopathy, podiatry, or chiropractic; retiree license. Provides that the Board of Medicine may issue a retiree license to any doctor of medicine, osteopathy, podiatry, or chiropractic who holds an active, unrestricted license to practice in the Commonwealth upon receipt of a request and submission of the required fee. The bill provides that a person to whom a retiree license has been issued shall not be required to meet continuing competency requirements for the first biennial renewal of such license. The bill also provides that a person to whom a retiree license has been issued shall only engage in the practice of medicine, osteopathy, podiatry, or chiropractic for the purpose of providing charity care or health care services to patients in their residence for whom travel is a barrier to receiving health care.

03/14/19 Governor: Acts of Assembly Chapter text (CHAP0379)

HB 2557 Drug Control Act; classifies gabapentin as a Schedule V controlled substance.

Chief patron: Pillion

Summary as passed:

Drug Control Act; Schedule V; gabapentin. Classifies gabapentin as a Schedule V controlled substance. Current law lists gabapentin as a drug of concern. The bill also removes the list of drugs of concern from the Code of Virginia and provides that any wholesale drug distributor licensed and regulated by the Board of Pharmacy and registered with and regulated by the U.S. Drug Enforcement Administration shall have until July 1, 2020, or within six months of final approval of compliance from the Board of Pharmacy and the U.S. Drug Enforcement Administration, whichever is earlier, to comply with storage requirements for Schedule V controlled substances containing gabapentin.

03/05/19 Governor: Acts of Assembly Chapter text (CHAP0214)

HB 2559 Electronic transmission of certain prescriptions; exceptions.

Chief patron: Pillion

Summary as passed House:

Electronic transmission of certain prescriptions; exceptions. Provides certain exceptions, effective July 1, 2020, to the requirement that any prescription for a controlled substance that contains an opioid be issued as an electronic prescription. The bill requires the licensing health regulatory board of a prescriber to grant such prescriber a waiver of the electronic prescription requirement for a period not to exceed one year due to demonstrated economic hardship, technological limitations that are not reasonably within the control of the prescriber, or other exceptional circumstances demonstrated by the prescriber. The bill provides that a dispenser is not required to verify whether one of the exceptions applies when he receives a non-electronic prescription for a controlled substance containing an opioid. The bill requires the Boards of Medicine, Nursing, Dentistry, and Optometry to promulgate regulations to implement the prescriber waivers. Finally, the bill requires the Secretary of Health and Human Resources to convene a work group to identify successes and challenges of the electronic prescription requirement and offer possible recommendations for increasing the electronic prescribing of controlled substances that contain an opioid and to report to the Chairmen of the House Committee on Health, Welfare and Institutions and the Senate Committee on Education and Health by November 1, 2022.

03/21/19 Governor: Acts of Assembly Chapter text (CHAP0664)

HB 2731 Lyme disease; disclosure of information to patients.

Chief patron: Edmunds

Summary as passed House:

Lyme disease; disclosure of information to patients. Requires every laboratory reporting the results of a test for Lyme disease ordered by a health care provider in an office-based setting to include, together with the results of such test provided to the health care provider, a notice stating that the results of Lyme disease tests may vary and may produce results that are inaccurate and that a patient may not be able to rely on a positive or negative result from such test. Such notice shall also include a statement that health care providers are encouraged to discuss Lyme disease test results with the patient for whom the test was ordered. The bill also provides that a laboratory that complies with the provisions of the bill shall be immune from civil liability absent gross negligence or willful misconduct.

03/18/19 Governor: Acts of Assembly Chapter text (CHAP0435)

SB 1004 Elective procedure, test, or service; estimate of payment amount.

Chief patron: Chase

Summary as passed:

Advance estimate of patient payment amount for elective medical procedure, test, or service; notice of right to request. Provides that every hospital currently required to provide an estimate of the payment amount for an elective procedure, test, or service for which a patient may be responsible shall also be required to provide each patient with written information regarding his right to request such estimate, to post written information regarding a patient's right to request such estimate conspicuously in public areas of the hospital, and to make such information available on the hospital's website.

03/21/19 Governor: Acts of Assembly Chapter text (CHAP0671)

SB 1106 Physical therapists & physical therapist assistants; licensure, Physical Therapy Licensure Compact.

Chief patron: Peake

Summary as introduced:

Licensure of physical therapists and physical therapist assistants; Physical Therapy Licensure Compact. Authorizes Virginia to become a signatory to the Physical Therapy Licensure Compact. The Compact permits eligible licensed physical therapists and physical therapist assistants to practice in Compact member states, provided they are licensed in at least one member state. In addition, the bill requires each applicant for licensure in the Commonwealth as a physical therapist or physical therapist assistant to submit fingerprints and provide personal descriptive information in order for the Board to receive a state and federal criminal history record report for each applicant. The bill has a delayed effective date of January 1, 2020, and directs the Board of Physical Therapy to adopt emergency regulations to implement the provisions of the bill.

03/08/19 Governor: Acts of Assembly Chapter text (CHAP0300)

SB 1167 Medicaid recipients; treatment involving opioids or opioid replacements, payment.

Chief patron: Chafin

Summary as passed:

Medicaid recipients; treatment involving opioids or opioid replacements; payment. Prohibits health care providers licensed by the Board of Medicine from requesting or requiring a patient who is a recipient of medical assistance services pursuant to the state plan for medical assistance to pay out-of-pocket costs associated with the provision of service involving (i) the prescription of an opioid for the management of pain or (ii) the prescription of buprenorphine-containing products, methadone, or other opioid replacements approved for the treatment of opioid addiction by the U.S. Food and Drug Administration for medication-assisted treatment of opioid addiction. The bill requires providers who do not accept payment from the Department of Medical Assistance Services (DMAS) who provide such services to patients participating in the Commonwealth's program of medical assistance services to provide written notice to such patient that (a) the Commonwealth's program of medical assistance services covers such health care services and DMAS will pay for such health care services if such health care services meet DMAS's medical necessity criteria and (b) the provider does not participate in the Commonwealth's program of medical assistance and will not accept payment from DMAS for such health care services. Such notice and the patient's acknowledgement of such notice shall be documented in the patient's medical record. This bill is identical to HB 2558.

03/18/19 Governor: Acts of Assembly Chapter text (CHAP0444)

SB 1439 Death certificates; medical certification, electronic filing.

Chief patron: McClellan

Summary as passed:

Death certificates; medical certification; electronic filing. Requires the completed medical certification portion of a death certificate to be filed electronically with the State Registrar of Vital Records through the Electronic Death Registration System and provides that, except for under certain circumstances, failure to file a medical certification of death electronically through the Electronic Death Registration System shall constitute grounds for disciplinary action by the Board of Medicine. The bill includes a delayed effective date of January 1, 2020, and a phased-in requirement for registration with the Electronic Death Registration System and electronic filing of medical certifications of death for various categories of health care providers. The bill directs the Department of Health to work with stakeholders to educate and encourage physicians, physician assistants, and nurse practitioners to timely register with and utilize the Electronic Death Registration System.

03/05/19 Governor: Acts of Assembly Chapter text (CHAP0224)

SB 1547 Music therapists; Board of Health Professions to evaluate regulation.

Chief patron: Vogel

Summary as passed:

Music therapy. Directs the Board of Health Professions to evaluate whether music therapists and the practice of music therapy should be regulated and the degree of regulation to be imposed. The bill requires the Board to report the results of its evaluation to the Chairmen of the Senate Committee on Education and Health and the House Committee on Health, Welfare and Institutions by November 1, 2019.

03/21/19 Governor: Acts of Assembly Chapter text (CHAP0680)

SB 1557 Pharmacy, Board of; cannabidiol oil and tetrahydrocannabinol oil, regulation of pharmaceutical.

Chief patron: Dunnavant

Summary as passed:

Board of Pharmacy; cannabidiol oil and tetrahydrocannabinol oil; regulation of pharmaceutical processors. Authorizes licensed physician assistants and licensed nurse practitioners to issue a written

certification for use of cannabidiol oil and THC-A oil. The bill requires the Board to promulgate regulations establishing dosage limitations, which shall require that each dispensed dose of cannabidiol oil or THC-A oil not exceed 10 milligrams of tetrahydrocannabinol. The bill requires the Secretary of Health and Human Resources and the Secretary of Agriculture and Forestry to convene a work group to review and recommend an appropriate structure for an oversight organization in Virginia and report its findings and recommendations to the Chairmen of the Senate Committees on Agriculture, Conservation and Natural Resources and Education and Health and the House Committees on Agriculture, Chesapeake and Natural Resources and Health, Welfare and Institutions by November 1, 2019.

03/21/19 Governor: Acts of Assembly Chapter text (CHAP0681)

SB 1760 Diagnostic X-ray machines; operation of machine.

Chief patron: DeSteph

Summary as introduced:

Diagnostic X-ray machines; operation. Provides that no person who has been trained and certified in the operation of a diagnostic X-ray machine by the manufacturer of such machine is required to obtain any other training, certification, or licensure or be under the supervision of a person who has obtained training, certification, or licensure to operate such a diagnostic X-ray machine, provided that (i) such diagnostic X-ray machine (a) is registered and certified by the Department of Health, (b) is being operated to conduct a body composition scan, and (c) is not operated to determine bone density or in the diagnosis or treatment of a patient and (ii) the subject of the body composition scan is notified of the risks associated with exposure to radiation emitted by the diagnostic X-ray machine.

01/31/19 Senate: Passed by indefinitely in Education and Health with letter (15-Y 0-N)

SB 1778 Counseling minors; certain health regulatory boards to promulgate regulations.

Chief patron: Newman

Summary as introduced:

Health regulatory boards; conversion therapy. Directs the Board of Counseling, the Board of Medicine, the Board of Nursing, the Board of Psychology, and the Board of Social Work to each promulgate regulations prohibiting the use of electroshock therapy, aversion therapy, or other physical treatments in the practice of conversion therapy with any person under 18 years of age.

02/06/19 Senate: Left in Education and Health

Board of Medicine
Regulatory/Policy Actions – 2019 General Assembly

EMERGENCY REGULATIONS:

Legislative source	Mandate	Promulgating agency	Board adoption date	Effective date Within 280 days of enactment
HB1952	Patient care team – PAs	Medicine	6/13/19 or 8/2/19 (signed 2/22)	**11/25/19**
HB2559	Waiver for electronic prescribing	Medicine	6/13/19 or 8/2/19 (signed 3/21)	**12/24/19**

APA REGULATORY ACTIONS

Legislative source	Mandate	Promulgating agency	Adoption date	Effective date
HB2457	Retiree license	Medicine	NOIRA – 6/13/19	?

NON-REGULATORY ACTIONS

Legislative source	Affected agency	Action needed	Due date
HB1970	Department	Review of telehealth; practice by adjacent physicians	11/1/19
HB2169	Medicine	Review/revision of application content & process to identify & expedite military spouse apps	7/1/19
SB1557	Medicine/Pharmacy/Department	Inclusion of NPs and PAs for registration to issue certifications Participation in workgroup to study oversight organization	7/1/19
SB1760 (not passed)	Department (Medicine)	Study of Xrays in spas – VDH	11/1/19
HJ682 (not passed)	Department	Study of foreign-trained physicians to provide services in rural areas	11/1/19

Future Policy Actions:

HB793 (2018) - (2) the Department of Health Professions, by **November 1, 2020**, to report to the General Assembly a process by which nurse practitioners who practice without a practice agreement may be included in the online Practitioner Profile maintained by the Department of Health Professions; and (3) the Boards of Medicine and Nursing to report information related to the practice of nurse practitioners without a practice agreement that includes certain data, complaints and disciplinary actions, and recommended modifications to the provisions of this bill to the Chairmen of the House Committee on Health, Welfare and Institutions and the Senate Committee on Education and Health and the Chairman of the Joint Commission on Health Care by **November 1, 2021**.

HB2559 (2019) - requires the Secretary of Health and Human Resources to convene a work group to identify successes and challenges of the electronic prescription requirement and offer possible recommendations for increasing the electronic prescribing of controlled substances that contain an opioid and to report to the Chairmen of the House Committee on Health, Welfare and Institutions and the Senate Committee on Education and Health by **November 1, 2022**.

Agenda Item: Study request on SB1760 – operation of diagnostic X-ray machine by unlicensed persons

Included in agenda package:

- Copy of SB1760
- Talking points by advocate for legislation
- Position paper by Conference of Radiation Control Program Directors
- Article from American College of Radiology

Staff note:

The Department of Health (VDH) and the Department of Health Professions (DHP) have been requested to prepare a report to Senate Education and Health on the subject matter for SB1760.

The Radiation Advisory Board of the VDH is meeting on May 16, 2019 to consider the same information included in this agenda package and to discuss a recommendation for the report.

The Advisory Board should discuss the subject matter and may decide to: 1) make no recommendation to the full Board on SB1760; or 2) make a recommendation to the full Board to state a position on SB1760.

19104268D

SENATE BILL NO. 1760

Offered January 18, 2019

A BILL to amend and reenact § 32.1-229.1 of the Code of Virginia, relating to diagnostic X-ray machines; operation.

Patron—DeSteph

Referred to Committee on Education and Health

Be it enacted by the General Assembly of Virginia:

1. That § 32.1-229.1 of the Code of Virginia is amended and reenacted as follows:

§ 32.1-229.1. Inspections of X-ray machines required; Radiation Inspection Reports; fees; qualification of inspectors.

A. All X-ray machines shall be registered with the Department.

B. Every owner or operator of an X-ray machine shall request an initial inspection by a private inspector or a Department inspector no later than 30 days after the installation of the equipment.

Inspections shall be performed periodically on a schedule prescribed by the Board. The Department may also require random, unannounced, follow-up inspections of machines that were inspected by private inspectors in order to maintain quality control. In the event of changes in or installations of new equipment during the last 90 days of a period for which an inspection has been made, no interim inspection shall be required. In addition, the Department may require the inspection and certification of other machines emitting radiation or utilizing radiation for patients, consumers, workers, or the general public.

Inspections shall be performed by Department personnel or by private inspectors only. Inspections conducted by private inspectors shall be conducted in conformance with the regulations of the Board and reports on these inspections shall be filed by the registrant with the Department on forms prescribed by the Department. Results of all inspections shall be reviewed by the Department.

C. The Department shall issue a certificate for a diagnostic or therapeutic X-ray machine, or X-ray machine not used in the healing arts, when the results of the inspection indicate the machine meets the Board's standards. If the machine does not meet the Board's standards, the certification may be denied. If the certification is denied, the machine shall not be used for treatment, diagnosis, evaluation of patients, whether human or animal, or any other use until the standards of the Board have been met. A copy of the certificate shall be displayed by the registrant in a conspicuous place in close proximity to the X-ray machine.

D. The Board shall, in accordance with the Administrative Process Act (§ 2.2-4000 et seq.), promulgate such regulations as the Board deems necessary to protect the health and safety of health care workers, patients, and the general public, including ~~but not limited to~~:

1. Fee schedules for registration of X-ray machines;

2. Schedule for inspections of X-ray machines;

3. Fee schedules for inspections of X-ray machines by Department personnel; however, no fee shall be charged for inspections initiated by the Department;

4. Standards for certification of X-ray machines; and

5. Qualifications for private inspectors of X-ray machines required for inclusion on a list of qualified inspectors of X-ray machines published pursuant to § 32.1-228.1, a requirement for annual registration as a private inspector of X-ray machines for inclusion on such list, and a fee not to exceed $150.00 for such registration.

E. *No person who has been trained and certified in the operation of a diagnostic X-ray machine by the manufacturer of such machine shall be required to obtain any other training, certification, or licensure or be under the supervision of a person who has obtained training, certification, or licensure to operate such a diagnostic X-ray machine, provided that (i) the diagnostic X-ray machine (a) is registered and certified by the Department, (b) is being operated to conduct a body composition scan, and (c) is not operated to determine bone density or in the diagnosis or treatment of a patient and (ii) the subject of the body composition scan is notified of the risks associated with exposure to radiation emitted by the diagnostic X-ray machine.*

F. The provisions of this section and of §§ 32.1-229 and 32.1-229.2 relating to X-ray machines and machines emitting or utilizing radiation shall not apply to devices purchased or used primarily for personal, family, or household purposes.

SB 1760 Diagnostic X-ray machines; operation of machine.

Diagnostic X-ray machines; operation. Provides that no person who has been trained and certified in the operation of a diagnostic X-ray machine by the manufacturer of such machine is required to obtain any other training, certification, or licensure or be under the supervision of a person who has obtained training, certification, or licensure to operate such a diagnostic X-ray machine, provided that (i) such diagnostic X-ray machine (a) is registered and certified by the Department of Health, (b) is being operated to conduct a body composition scan, and (c) is not operated to determine bone density or in the diagnosis or treatment of a patient and (ii) the subject of the body composition scan is notified of the risks associated with exposure to radiation emitted by the diagnostic X-ray machine.

This amendment speaks specifically to conducting a body composition scan using a DXA (dual x-ray absorptiometry) machine. It does not infringe on the Virginia Department of Health's Office of Radiological Health's or the Department of Health Profession's equipment registration requirements or the highly regarded level of training required for healthcare professionals licensed to run x-ray scans for disease detection, diagnosis, and/or treatment. All machines must be inspected and registered as required by the state (at minimum on a yearly basis) and are accessible/available for inspection at any time.

The body composition scan is a different setting on the DXA machine (versus a bone mineral density scan, which is anatomical site specific and potentially emitting higher strength x-ray). The body composition scan is a full body scan and emits an equal or smaller amount of radiation then an individual receives from the sun at sea level in 24 hours. (It is less than 10 micro-sieverts (micro-see-verts).) Therefore, with such low dose exposure, individuals are highly unlikely to experience radiation side effects. The DXA scan is such low dose radiation exposure that no special requirements exist for the environment or technicians (such as a lead vest, wall screen, radiation detection badge, room structure protection modifications, etc.).

However, all x-ray parameters will be followed and individuals will be notified that they will be exposed to low dose radiation and possible side effects with the opportunity to decline the assessment. (No pregnant women will be tested or those who have had any other imaging or test utilizing oral contrast or radioactive isotope within 30 days.) *Tests will also be limited on a yearly basis to minimize exposure concerns. The body composition assessments are meant to track dietary, lifestyle, strength and conditioning, and recovery interventions and progress, and therefore require adequate time (weeks) between measurements. (No more than 6 assessments per year will be conducted.)

Over the last 5-10 years DXA scans have become the "gold standard" for accuracy in measuring body composition and have less than a 1% margin of error[1]. Other assessment methodologies have greater than a 5% margin of error and require very specific conditions to achieve accuracy and repeatability, and are more invasive for the individual being assessed. Other methods are also not capable of assessing body composition for individuals with certain injuries or those with amputations. However, a DXA scan optimally assesses body composition for any individual. Moreover, research regarding body composition scans show that novice versus experienced DXA technicians yield similar results within 1% difference in reliability and less than .75% difference in precision[2].

Individuals operating the body composition scans will be allied healthcare providers, all with current, nationally recognized certifications such as Certified Athletic Trainers, Physical Therapists, and Registered Dietitians. National certification and accreditation are critical for professionals administering the assessment to assure that not only are procedures, including safety being followed, but that the results and progress are communicated appropriately and individuals are properly educated. Moreover, all individuals will be certified by the manufacturer prior to conducting and body composition scans and a manufacturer trained individual will perform at least 50 documented body composition scans under the supervision of an experienced practitioner (with over 200 body composition scans). All healthcare provider credentials, training certificates, and completed scan logs will be posted and available for inspection at any time.

References:

1. Bone: Body Composition by DXA. Shepherd et al. 2017 November ; 104: 101–105. doi:10.1016/j.bone.2017.06.010.
2. Sport Nutrition & Exercise Metabolism: Does a Novice Technician Produce Results Similar to That of an Experienced DXA Technician When Assessing Body Composition and Bone Mineral Density? Persson et al. 2018. https://doi.org/10.1123/ijsnem.2018-0299

CONFERENCE OF RADIATION CONTROL PROGRAM DIRECTORS, INC.

BOARD OF DIRECTORS

POSITION

Relating to: Use of Dual-Energy X-ray Absorptiometry for Body Fat Measurement

Recent articles relating to the measurement of body fat percentage (BFP) in humans list Dual-Energy X-ray Absorptiometry (DXA) as an accurate representation of BFP. While DXA does deliver a relatively low dose of radiation, (thought to be between 1 micro Sievert and 10 micro Sievert depending on the make, model and scan mode used), as with any imaging technique which utilizes ionizing radiation, each examination must be clinically justified. As with any other x-ray based imaging method, radiation dose from DXA is to be kept as low as reasonably achievable.

Dual-energy X-ray absorptiometry is a clinically proven method of measuring bone mineral density (BMD) and the primary goal of DXA is to measure BMD accurately and reproducibly. Indications for DXA include, but are not limited to individuals with established or clinically suspected low BMD, women age 65 years and older, men age 70 years and older (asymptomatic screening), individuals at increased risk for osteoporosis or osteopenia, and children or adolescents with medical conditions associated with abnormal BMD. DXA may be indicated as a tool to measure regional and whole body fat and lean mass for patients with malabsorption, cancer, or eating disorders. (Excerpt from American College of Radiology-SPR-SSR Practice Parameter for the Performance of Dual-Energy X-ray Absorptiometry).

As with any x-ray examination, DXA is to be prescribed by a licensed clinician and administered by a qualified operator. In the majority of States, any and all equipment which produces ionizing radiation is to be licensed or registered with the State Health Organization or similar entity. Additionally, most State Organizations require review and prior authorization before x-ray imaging is used in a 'screening' protocol.

There are numerous alternatives available in the measurement of BFP which do not require exposing the individual to radiation. These include but are certainly not limited to: skin calipers, bioelectrical impedance, hydrostatic weighing, air-displacement plethysmography, as well as various height and circumference methods.

The use of DXA for the purpose of BFP has implications which could include a wide scope including use in health clubs, spas and other non-clinical settings. With the potential for increased use of DXA comes the need to comply with Federal and State Regulations governing the use of ionizing radiation as well as to both justify such usage and to ensure that any individual's exposure to radiation is kept as low as reasonably achievable.

It is the position of the Board of Directors of the Conference of Radiation Control Program Directors, Inc. (CRCPD) that Dual-Energy X-ray Absorptiometry is to be used as a diagnostic tool and only under the direction of a licensed practitioner. Further, any use of DXA in the measurement of Body Fat Percentage in other than a clinical setting should be subject to approval and oversight by the respective State Health Organization.

Adopted by the CRCPD Board of Directors on November 17, 2015.

William E. Irwin, Sc.D., CHP
CRCPD Chairperson

Revised 2018 (Resolution 8)*

ACR–SPR–SSR PRACTICE PARAMETER FOR THE PERFORMANCE OF DUAL-ENERGY X-RAY ABSORPTIOMETRY (DXA)

PREAMBLE

This document is an educational tool designed to assist practitioners in providing appropriate radiologic care for patients. Practice Parameters and Technical Standards are not inflexible rules or requirements of practice and are not intended, nor should they be used, to establish a legal standard of care[1]. For these reasons and those set forth below, the American College of Radiology and our collaborating medical specialty societies caution against the use of these documents in litigation in which the clinical decisions of a practitioner are called into question.

The ultimate judgment regarding the propriety of any specific procedure or course of action must be made by the practitioner in light of all the circumstances presented. Thus, an approach that differs from the guidance in this document, standing alone, does not necessarily imply that the approach was below the standard of care. To the contrary, a conscientious practitioner may responsibly adopt a course of action different from that set forth in this document when, in the reasonable judgment of the practitioner, such course of action is indicated by the condition of the patient, limitations of available resources, or advances in knowledge or technology subsequent to publication of this document. However, a practitioner who employs an approach substantially different from the guidance in this document is advised to document in the patient record information sufficient to explain the approach taken.

The practice of medicine involves not only the science, but also the art of dealing with the prevention, diagnosis, alleviation, and treatment of disease. The variety and complexity of human conditions make it impossible to always reach the most appropriate diagnosis or to predict with certainty a particular response to treatment. Therefore, it should be recognized that adherence to the guidance in this document will not assure an accurate diagnosis or a successful outcome. All that should be expected is that the practitioner will follow a reasonable course of action based on current knowledge, available resources, and the needs of the patient to deliver effective and safe medical care. The sole purpose of this document is to assist practitioners in achieving this objective.

[1] Iowa Medical Society and Iowa Society of Anesthesiologists v. Iowa Board of Nursing, ___ N.W.2d ___ (Iowa 2013) Iowa Supreme Court refuses to find that the *ACR Technical Standard for Management of the Use of Radiation in Fluoroscopic Procedures* (Revised 2008) sets a national standard for who may perform fluoroscopic procedures in light of the standard's stated purpose that ACR standards are educational tools and not intended to establish a legal standard of care. See also, Stanley v. McCarver, 63 P.3d 1076 (Ariz. App. 2003) where in a concurring opinion the Court stated that "published standards or guidelines of specialty medical organizations are useful in determining the duty owed or the standard of care applicable in a given situation" even though ACR standards themselves do not establish the standard of care.

I. INTRODUCTION

This practice parameter was revised collaboratively by the American College of Radiology (ACR), the Society for Pediatric Radiology (SPR), and the Society of Skeletal Radiology (SSR).

Dual-energy X-ray absorptiometry (DXA) [1] is a clinically proven, accurate, and reproducible method of measuring bone mineral density (BMD) in the lumbar spine, proximal femur, forearm, and whole body [2-7]. It is used primarily in the diagnosis and management of osteoporosis and other disease states characterized by abnormal BMD, as well as to monitor response to therapy for these conditions [8,9].

DXA may also be used to measure whole-body composition [10-12], including nonbone lean mass (LM) and fat mass (FM). DXA-measured LM and FM may be helpful in assessing a number of conditions, including sarcopenia and cachexia.

This practice parameter outlines the principles of performing high-quality DXA.

II. INDICATIONS AND CONTRAINDICATIONS

DXA measurement of BMD, LM, or FM is indicated whenever a clinical decision is likely to be directly influenced by the result of the test [13].

A. Indications for DXA include, but are not limited to, individuals with suspected abnormal BMD, LM, or FM, including [2,6,7,14-23]:

1. All women aged 65 years and older and men aged 70 years and older (asymptomatic screening)

2. All postmenopausal women younger than 65 years and men younger than 70 years who have risk factors for osteoporosis including:

    a. A history of fracture of the wrist, hip, spine, or proximal humerus with minimal or no trauma, excluding pathologic fractures
    b. Family history of osteoporotic fracture
    c. Low body mass (less than 127 lbs or 57.6 kg)
    d. Current use of cigarettes
    e. Excessive use of alcohol
    f. Loss of height, thoracic kyphosis

3. Individuals of any age with findings suggestive of demineralization or fragility fractures on imaging studies such as radiographs, computed tomography (CT), or magnetic resonance imaging (MRI)

4. Individuals receiving (or expected to receive) glucocorticoid therapy for more than 3 months

5. Individuals beginning or receiving long-term therapy with medications known to adversely affect BMD (eg, anticonvulsant drugs, androgen deprivation therapy, aromatase inhibitor therapy, or chronic heparin)

6. Although proton pump inhibitors (PPIs) may be associated with an increased risk of fragility fractures, routine or screening BMD is not recommended in patients receiving PPIs in the absence of other risk factors [24]

7. Individuals with an endocrine disorder known to adversely affect BMD (eg, hyperparathyroidism, hyperthyroidism, or Cushing's syndrome)

8. Postpubertal hypogonadal males with surgically or chemotherapeutically induced castration

9. Individuals with medical conditions associated with abnormal BMD, such as:

    a. Chronic renal failure
    b. Rheumatoid arthritis and other inflammatory arthritides
    c. Eating disorders, including anorexia nervosa and bulimia
    d. Gastrointestinal malabsorption or sprue
    e. Osteomalacia
    f. Acromegaly, chronic alcoholism, or established cirrhosis
    g. Multiple myeloma
    h. Gastric bypass for obesity. The accuracy of DXA in these patients might be affected by obesity
    i. Organ Transplantation
    j. Prolonged immobilization
    k. Prolonged poor nutrition

10. Individuals being monitored to:

    a. Assess the effectiveness of osteoporosis drug therapy [25]
    b. Follow-up medical conditions associated with abnormal BMD

11. DXA may be indicated as a tool to measure regional and whole body fat and LM (eg, for patients with malabsorption, cancer, or eating disorders) [21,26-29]

B. Pediatric Indications and Considerations

Indications for performing BMD examinations and subsequent assessment in children differ significantly from those in adults. Interpreting BMD measurements in children is complicated by the growing skeleton. DXA is unable to take into account changes in body and skeletal size during growth, limiting its usefulness in longitudinal studies. For example, an increase in DXA-measured areal BMD in the spine is more likely a reflection of the change of vertebral size than a change in BMD. Because quantitative computed tomography (QCT) can assess both volume and density of bone in the axial and appendicular skeleton, it may be more useful than DXA in children. Because of its lower radiation dose, peripheral QCT, which assesses the extremities, may be preferable to central QCT in pediatric patients.

In children and adolescents, BMD measurement is indicated whenever a clinical decision is likely to be directly influenced by the result of the test. Indications for DXA include, but are not limited to [26]:

1. Individuals receiving (or expected to receive) glucocorticoid therapy for more than 3 months

2. Individuals receiving radiation or chemotherapy for malignancy

3. Individuals with an endocrine disorder known to adversely affect BMD (eg, hyperparathyroidism, hyperthyroidism, growth hormone deficiency, or Cushing's syndrome)

4. Individuals with bone dysplasias known to have excessive fracture risk (osteogenesis imperfecta, osteopetrosis) or high bone density such as with prolonged exposure to fluoride

5. Individuals with medical conditions that could alter BMD, such as:

    a. Chronic renal failure
    b. Rheumatoid arthritis and other inflammatory arthritides
    c. Eating disorders, including anorexia nervosa and bulimia
    d. Organ transplantation
    e. Prolonged immobilization
    f. Gastrointestinal malabsorption, including that related to Cystic Fibrosis
    g. Sprue

h. Inflammatory bowel disease
i. Malnutrition
j. Osteomalacia
k. Vitamin D deficiency
l. Acromegaly
m. Cirrhosis
n. HIV infection
o. Prolonged exposure to fluorides

C. Contraindications

There are no absolute contraindications to performing DXA [30]. However, a DXA examination may be of limited value or require modification of the technique or rescheduling of the examination in some situations, including:

1. Recently administered oral contrast or radionuclides

2. Pregnancy

3. Severe degenerative changes or fracture deformity in the measurement area

4. Implants, hardware, devices, or other foreign material in the measurement area

5. The patient's inability to attain correct position and/or remain motionless for the measurement

6. Extremes of high or low body mass index that may adversely affect the ability to obtain accurate measurements. QCT may be a desirable alternative in these individuals [31-33]

For the pregnant or potentially pregnant patient, see the ACR–SPR Practice Parameter for Imaging Pregnant or Potentially Pregnant Adolescents and Women with Ionizing Radiation [34].

III. QUALIFICATIONS AND RESPONSIBILITIES OF PERSONNEL

For physician, Qualified Medical Physicist, registered radiologist assistant, and radiologic technologist qualifications see the ACR–SPR Practice Parameter for General Radiography [35]. Additional specific qualifications and responsibilities include:

A. Physician [36-38]

The examination must be performed under the supervision of and be interpreted by a licensed physician with the following qualifications:

Knowledge and understanding of bone structure, metabolism, and osteoporosis

1. Documented training in and understanding of the physics of X-ray absorption and radiation protection, including the potential hazards of radiation exposure to both patients and personnel and the monitoring requirements

2. Knowledge and understanding of the process of DXA data and image acquisition, including proper patient positioning and placement of regions of interest, and artifacts and anatomic abnormalities that may falsely increase or decrease measured values

3. Knowledge and understanding of the analysis and reporting of DXA, including, but not limited to, BMD, T-score, Z-score, WHO fracture risk assessment tool (FRAX®), and the WHO classification system

4. Knowledge and understanding of the criteria for comparison of serial measurements, including limitations of comparing measurements made by different techniques and different devices, the rationale behind precision testing, and the statistical significance of serial changes in BMD

5. Awareness of other bone densitometry techniques, including QCT, peripheral QCT, peripheral DXA, and quantitative ultrasound (QUS), to fulfill a consultative role in recommending further studies, future measurements, or diagnostic procedures to confirm suspected abnormalities seen on DXA images

6. When performing DXA for the assessment of body composition, the physician should have additional knowledge and understanding of:

   a. Analysis and reporting of DXA, including but not limited to LM, FM, appendicular lean mass (ALM), and visceral adipose tissue (VAT)
   b. Other modalities used to assess body composition, including CT, MRI, QUS, bioelectrical impedance analysis, and anthropomorphic analysis

The supervising physician must be responsible for overseeing the DXA facility and its equipment quality control program. The physician accepts final responsibility for the quality of all DXA examinations.

The physician's continuing medical education should be in accordance with the ACR Practice Parameter for Continuing Medical Education (CME) [39].

B. Radiologic and Nuclear Medicine Technologist

The examination must be performed by a technologist with the following qualifications and responsibilities:

1. Responsibility for patient comfort and safety, preparing and properly positioning the patient, placement of regions of interest for BMD measurements, monitoring the patient during the measurements, and obtaining the measurements prescribed by the supervising physician

2. Documented formal training in the use of the DXA equipment, including all manufacturer-specified quality assurance procedures [40]

3. Knowledge of and familiarity with the manufacturer's operator manual for the specific scanner model being used

4. Responsibility for determining precision error and calculating least significant change (LSC) (see section VII. D)

5. State licensure and/or certification, if required. Organizations providing certification in bone densitometry include the American Registry of Radiologic Technologists (ARRT), the Nuclear Medicine Technology Certification Board (NMTCB), and the International Society for Clinical Densitometry (ISCD)

The technologist's continuing medical education should be in accordance with the national registry or state licensure requirements where applicable.

IV. SPECIFICATIONS OF THE EXAMINATION

A. The written or electronic request for a DXA examination should provide sufficient information to demonstrate the medical necessity of the examination and allow for its proper performance and interpretation.

Documentation that satisfies medical necessity includes 1) signs and symptoms and/or 2) relevant history (including known diagnoses). Additional information regarding the specific reason for the examination or a provisional diagnosis would be helpful and may at times be needed to allow for the proper performance and interpretation of the examination.

The request for the examination must be originated by a physician or other appropriately licensed health care provider. The accompanying clinical information should be provided by a physician or other appropriately licensed health care provider familiar with the patient's clinical problem or question and consistent with the state scope of practice requirements. (ACR Resolution 35, adopted in 2006 – revised in 2016, Resolution 12-b)

B. A history should be obtained from the patient regarding risk factors (as listed in section III), and prior surgery that could potentially affect the accuracy of measurements. Questionnaires can be found on www.iscd.org or www.nof.org.

C. Standard DXA examination in adults should, at a minimum, consist of a posteroanterior scan of the lumbar spine and scan of either hip [6,41-44]. However, imaging of both hips would provide information on the lowest hip BMD, and if in the future one hip becomes unavailable to utilize (eg, fracture and/or surgery), there would be comparison information available for the unaffected hip to determine BMD change. In instances where this is not feasible (extensive abdominal aortic calcification, degenerative disease of the lumbar spine or hip, scoliosis, fractures, implants), alternate sites can be used for evaluating the patient, including the other hip, nondominant forearm, or whole body [45]. DXA of the nondominant forearm may be useful in individuals who exceed the weight limit of the DXA table and in individuals with hyperparathyroidism [6].

D. In children and adolescents, a DXA examination should consist of an examination of the lumbar spine and whole body [6,46-49]. What is acquired may vary with the indication. In individuals with quadriplegic cerebral palsy, often with spinal fusion hardware and proximal femoral hardware or hip point contracture, the distal femur in the lateral position can be used for measurement of BMD and follow-up of therapy. The pediatric normative database for this technique is vendor specific [50-52]. The relationship of BMD to fracture risk in children is not clearly established [27,47].

E. DXA examination includes images of the areas where BMD is measured. If prior images (eg, radiographs, CT, MRI) of these anatomic areas are available, they should be reviewed to determine if specific sites should not be analyzed using DXA [53].

F. Positioning and soft-tissue-equivalent devices issued by the manufacturer must be used consistently and properly. Comfort devices, such as pillows under the head or knees, must not interfere with proper positioning and must never appear in the scan field.

G. For the lumbar spine, vertebrae may be excluded if there is a T-score difference of more than 1.0 compared to the adjacent vertebrae, or if there are focal structural abnormalities in or overlying the vertebra, such as fractures, previous surgery, degenerative changes, or other internal or external, artifacts. The remaining vertebrae (minimum of two levels) are used for diagnosis and monitoring. Diagnostic classification should not be made using a single vertebra.

H. For diagnosis in postmenopausal women and men aged 50 years and older, measured BMD values must be compared with those of the young adult reference population values, yielding a T-score that corresponds to a WHO diagnostic category [6]. For diagnosis in children, premenopausal women, and men younger than 50 years, measured BMD values must be compared with population-specific age-matched values, yielding a Z-score [6]. Typically, Z-scores of −2 or lower are considered to be below the expected range for age.

I. For diagnosis in children and adolescents, measured BMD values must be compared to a normative pediatric database yielding a gender-specific Z-score. An ethnicity-specific database should be used if available and adjustment for height when possible. BMD values and Z-scores for total-body less head region of interest are commonly reported. Reports should also include bone mineral content (BMC) [54]. Typically, Z-scores below −2 are considered abnormal.

J. When monitoring patients, comparison should be made to prior DXA examinations of the same skeletal site, region of interest, and area size. The precision error and LSC of the specific scanner(s) should be ascertained to determine if measured changes are statistically significant [6,55-58]. If the prior DXA examination was performed

on the same device (not just the same manufacturer model), quantitative comparison of the examinations can be performed. If the examination was on a different device, then comparison is qualitative unless a cross calibration calculation has been performed [40,59-61]. Comparability of scans, in order of decreasing validity, is as follows:

1. Previous examinations on the same well-maintained device
2. Previous examinations on another device with cross calibration calculation performed
3. Previous examinations on another device from the same manufacturer
4. Previous examinations on a device from another manufacturer (not recommended)

K. Vertebral fracture assessment (VFA) is a low-dose lateral image of the thoracic and lumbar spine that may be added to a standard DXA to determine whether vertebral fractures are present [63,64]. VFA should be considered in patients with height loss or back pain who have not been assessed by conventional radiographs, CT, or MRI. VFA is intended solely to identify whether spine compression is present and does not replace conventional diagnostic imaging for other purposes.

L. Trabecular Bone Score (TBS) is a method of obtaining quantitative data on bone texture from DXA spine images. TBS requires specialized software that measures relative pixel amplitude variations summing the squared gray-level differences [65]. TBS has been shown to improve fracture risk prediction using the FRAX tool. TBS-adjusted fracture risk calculation using the FRAX tool is especially valuable in patients with type 2 diabetes, who fracture at higher BMD levels than nondiabetics [66].

M. When assessing body composition using DXA, additional factors should be considered [21,28]:

1. Some patients may be too tall or too wide to be included in the scanned field. In patients who are too tall, part of the head can be excluded, or the patient can be imaged with bent knees. In patients who are too wide, half the body can be imaged, and the other half can be estimated because of symmetry.
2. Anything that alters body water can impact measurements. For instance, an overhydrated patient may result in a decreased LM and increased FM. Scans obtained soon after overnight fasting before the patient has consumed anything allow for most reproducible measurements.
3. When assessing muscle mass measurements, such as total LM/height2, arms LM + legs LM (ALM), ALM/total weight, and ALM/height2 are useful in detecting sarcopenia and other chronic conditions that affect LM.
4. Adiposity measurements, including VAT, subcutaneous adipose tissue, and FM index (FM/height2), may be used in evaluating patients with cancer, cachexia, and other chronic conditions that affect FM and distribution.

V. DOCUMENTATION

Reporting should be done in accordance with the ACR Practice Parameter for Communication of Diagnostic Imaging Findings [67].

A. A permanent record must be maintained, and should include:

1. Patient identification, facility identification, examination date, image orientation, and unit manufacturer and model
2. Clinical notes or patient questionnaire containing pertinent history

3. Positioning, anatomical information, and/or technique settings needed for performing serial measurements

4. Printouts or their electronic equivalent of the images and regions of interest if provided by the scanner

B. For postmenopausal women and men aged 50 years and older, the reports should include the BMD (in g/cm^2), T-score, and classification according to WHO criteria. One diagnostic category of normal, osteopenia (low bone mass), or osteoporosis is assigned to each patient based on the lowest T-score of the lumbar spine, total hip, femoral neck, or radius (radius 33%, radius 1/3). WHO classification is assigned only to the lowest T-score, not to each site evaluated. Osteoporosis by WHO category is not further defined as mild, moderate, or severe. The only exception is a combination of a T-score consistent with osteoporosis and a fragility fracture that can be diagnosed as "severe osteoporosis."

C. A statement about fracture risk is recommended, if appropriate. The most commonly used model for calculating absolute risk is the WHO Fracture risk assessment tool (FRAX® tool). The FRAX® tool provides 10-year risk of hip fracture and global fracture (hip, spine, forearm, humerus), has been FDA approved and may be applied in men or women who meet criteria [68]. In the United States, FRAX is typically not reported in patients already receiving therapy for osteoporosis, in patients with known vertebral or hip fractures, or in patients younger than 50 years. Other considerations for the use of FRAX are available in the International Society for Clinical Densitometry Official Position Statement on FRAX [69].

D. For premenopausal women and men younger than 50 years, the BMD and Z-score should be reported for each skeletal site examined. The WHO classification does not apply to these individuals (except for women in menopausal transition). Z-scores above −2.0 are considered within the expected range for their age. Individuals with Z-scores of −2.0 and lower are considered to have low bone density for their age.

E. For children and adolescents, T-scores should not be reported. The WHO classification does not apply; the terms "osteopenia" and "osteoporosis" should not be used when BMC or areal BMD Z-scores are less than or equal to −2. "Low bone mineral mass or bone mineral density" is the preferred terminology for pediatric DXA reports [70].

F. For all examinations, the report should indicate whether artifacts or other technical issues may have influenced the reported measurements of BMD.

G. A statement comparing the current study to prior available studies should include a statement of whether any changes in measured BMD are statistically significant. Recommendations for, and the timing of, a follow-up DXA scan may also be included.

H. When appropriate, suggestions for further imaging (eg, radiography, CT, or MRI) or other ancillary tests should be provided.

VI. EQUIPMENT SPECIFICATIONS

Various equipment designs that can accurately and reproducibly measure BMD using DXA are available. The equipment should provide the following:

1. Normal young adult and age-matched reference population values matched for sex and applicable to the equipment being used. Some devices also provide reference values matched for ethnicity and body weight.

2. Labeled images of the anatomic site measured and measurement results. These should be recorded permanently for patient records.

3. Precision errors of measurement of a phantom or standard that do not exceed the specifications or recommendations of the manufacturer and are less than 1%. In vitro (phantom) precision should not be equated with in vivo (patient) precision, as the role of the technologist in patient positioning and scan analysis is critical.

A phantom or other standard must be measured according to the manufacturer's recommendations in order to monitor instrument calibration.

VII. EQUIPMENT QUALITY CONTROL

DXA equipment quality control is especially important for monitoring the effectiveness of therapy or progression of disease [40].

A. Each DXA facility should have documented policies and procedures for evaluating the effective management, safety, and operation of DXA equipment. The quality control program should be designed in consultation with a Qualified Medical Physicist to minimize risks for patients, personnel, and the public and to maximize the quality of the diagnostic information.

B. At installation of a DXA unit, an environmental radiation safety survey should be conducted by a Qualified Medical Physicist. The survey should include any additional evaluation as required by state regulations.

C. Quality control procedures should be performed and permanently recorded by a trained technologist. These procedures are generally required at least 3 days a week and always before the first patient measurement of the day. They should be interpreted immediately upon completion, according to the guidelines provided by the manufacturer, to ensure proper system performance.

If a problem is detected, according to manufacturer guidelines, the service representative should be notified and patients should not be examined until the equipment has been cleared for use.

D. Each facility should determine its precision error and calculate LSC. If a facility has more than one DXA technologist, these values should represent an average of pooled data from all technologists.

E. Upon replacement of the DXA unit, precision error and LSC should be cross calibrated and recalculated [71].

VIII. RADIATION SAFETY IN IMAGING

Radiologists, medical physicists, registered radiologist assistants, radiologic technologists, and all supervising physicians have a responsibility for safety in the workplace by keeping radiation exposure to staff, and to society as a whole, "as low as reasonably achievable" (ALARA) and to assure that radiation doses to individual patients are appropriate, taking into account the possible risk from radiation exposure and the diagnostic image quality necessary to achieve the clinical objective. All personnel that work with ionizing radiation must understand the key principles of occupational and public radiation protection (justification, optimization of protection and application of dose limits) and the principles of proper management of radiation dose to patients (justification, optimization and the use of dose reference levels)
http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1578_web-57265295.pdf.

Nationally developed guidelines, such as the ACR's Appropriateness Criteria®, should be used to help choose the most appropriate imaging procedures to prevent unwarranted radiation exposure.

Facilities should have and adhere to policies and procedures that require varying ionizing radiation examination protocols (plain radiography, fluoroscopy, interventional radiology, CT) to take into account patient body habitus (such as patient dimensions, weight, or body mass index) to optimize the relationship between minimal radiation dose and adequate image quality. Automated dose reduction technologies available on imaging equipment should be used whenever appropriate. If such technology is not available, appropriate manual techniques should be used.

Additional information regarding patient radiation safety in imaging is available at the Image Gently® for children (www.imagegently.org) and Image Wisely® for adults (www.imagewisely.org) websites. These advocacy and awareness campaigns provide free educational materials for all stakeholders involved in imaging (patients, technologists, referring providers, medical physicists, and radiologists).

Radiation exposures or other dose indices should be measured and patient radiation dose estimated for representative examinations and types of patients by a Qualified Medical Physicist in accordance with the applicable ACR technical standards. Regular auditing of patient dose indices should be performed by comparing the facility's dose information with national benchmarks, such as the ACR Dose Index Registry, the NCRP Report No. 172, Reference Levels and Achievable Doses in Medical and Dental Imaging: Recommendations for the United States or the Conference of Radiation Control Program Director's National Evaluation of X-ray Trends. (ACR Resolution 17 adopted in 2006 – revised in 2009, 2013, Resolution 52).

IX. QUALITY CONTROL AND IMPROVEMENT, SAFETY, INFECTION CONTROL, AND PATIENT EDUCATION

Policies and procedures related to quality, patient education, infection control, and safety should be developed and implemented in accordance with the ACR Policy on Quality Control and Improvement, Safety, Infection Control, and Patient Education appearing under the heading *Position Statement on QC & Improvement, Safety, Infection Control, and Patient Education* on the ACR website (https://www.acr.org/Clinical-Resources/Practice-Parameters-and-Technical-Standards).

Equipment performance monitoring should be in accordance with manufacturer's recommendations and applicable aspects of the ACR–AAPM Technical Standard for Diagnostic Medical Physics Performance Monitoring of Radiographic Equipment [72].

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*Practice parameters and technical standards are published annually with an effective date of October 1 in the year in which amended, revised, or approved by the ACR Council. For practice parameters and technical standards published before 1999, the effective date was January 1 following the year in which the practice parameter or technical standard was amended, revised, or approved by the ACR Council.

Development Chronology for this Practice Parameter
1998 (Resolution 23)
Revised 2002 (Resolution 10)
Amended 2006 (Resolution 17, 34, 35)
Revised 2008 (Resolution 29)
Amended 2009 (Resolution 11)
Revised 2013 (Resolution 31)
Amended 2014 (Resolution 39)
Revised 2018 (Resolution 8)

Commonwealth of Virginia

Harp, William <william.harp@dhp.virginia.gov>

Re: Letter from the Virginia Chapter, ACR Regarding SB 1760

1 message

Yeatts, Elaine <elaine.yeatts@dhp.virginia.gov> Mon, May 6, 2019 at 4:59 PM
To: "Harp, William" <william.harp@dhp.virginia.gov>

Please include in agenda package. Who is going to certify operator? What if a new person is hired, is manufacturer going to come back and certify that person?

On Mon, May 6, 2019 at 4:56 PM Harp, William <william.harp@dhp.virginia.gov> wrote:
Steve & Elaine:

Here is a brief letter about SB 1760 from the Virginia Chapter of the American College of Radiology.

Bill

---------- Forwarded message ---------
From: **Lara Knowles** <lknowles@ramdocs.org>
Date: Mon, May 6, 2019 at 2:51 PM
Subject: Letter from the Virginia Chapter, ACR Regarding SB 1760
To: william.harp@dhp.virginia.gov <william.harp@dhp.virginia.gov>
Cc: Richard Szucs <raszucs@gmail.com>, James Pickral (james@commonwealthstrategy.net) <james@commonwealthstrategy.net>

Hi Dr. Harp -

Hope all is well! Please find attached a letter from Dr. Richard Szucs, Legislative Chair of the Virginia Chapter, American College of Radiology, regarding SB 1760.

Please let us know if you have any questions.

Take care,

Lara

Lara W. Knowles

Chapter Coordinator

Virginia Chapter, ACR

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VIRGINIA CHAPTER
AMERICAN COLLEGE OF RADIOLOGY

May 6, 2019

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William L. Harp, M.D.
Executive Director
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Dr. Harp,

Thank you for the opportunity to provide input on the subject matter contained in SB 1760. As Legislative Chair, I am pleased to submit comment on behalf of the Virginia Chapter, American College of Radiology (VCACR).

The original intent of SB 1760 was to permit the operation of a diagnostic X-ray machine by individuals who had been trained by the manufacturer in its use for conducting body composition scans. The bill prohibited any requirement for additional training, certification, or registration. Additionally, the bill prohibited the use of such diagnostic X-ray machines for determining bone density or in the diagnosis or treatment of a patient. Finally, there was a requirement that the subject of the scan be notified of risks associated with exposure to radiation emitted by the diagnostic X-ray machine.

In extensive talks with the patron of the bill we believe that we came to several points of agreement that would ensure patient protection. One of the main goals of the VCACR is to mitigate the risks of radiation exposure and educate the public on the dangers associated with radiation exposure. The Chapter understands that the machines which the legislation references emit extremely low doses of radiation. However, these machines do emit radiation and we feel that the following protections should be in place:

- Certification that the operator has received appropriate training on the device and appropriate training on the risks of radiation exposure.
- Registration of the machine with the Office of Radiological Health.
- Periodic inspections of the machine. This may be done by the manufacturer or by the Office of Radiological Health.
- A limit of four scans per individual per calendar year.

Thank you again for the opportunity to submit comment. We look forward to working with the Board on this issue.

Sincerely,

Richard Szucs, M.D.
Legislative Chair
Virginia Chapter, American College of Radiology

Cc: James Pickral
Partner, Commonwealth Strategy Group

Code of Virginia
Title 54.1. Professions and Occupations
Chapter 29. Medicine and Other Healing Arts

§ 54.1-2900. Definitions.

As used in this chapter, unless the context requires a different meaning:

"Acupuncturist" means an individual approved by the Board to practice acupuncture. This is limited to "licensed acupuncturist" which means an individual other than a doctor of medicine, osteopathy, chiropractic or podiatry who has successfully completed the requirements for licensure established by the Board (approved titles are limited to: Licensed Acupuncturist, Lic.Ac., and L.Ac.).

"Auricular acupuncture" means the subcutaneous insertion of sterile, disposable acupuncture needles in predetermined, bilateral locations in the outer ear when used exclusively and specifically in the context of a chemical dependency treatment program.

"Board" means the Board of Medicine.

"Certified nurse midwife" means an advanced practice registered nurse who is certified in the specialty of nurse midwifery and who is jointly licensed by the Boards of Medicine and Nursing as a nurse practitioner pursuant to § 54.1-2957.

"Certified registered nurse anesthetist" means an advanced practice registered nurse who is certified in the specialty of nurse anesthesia, who is jointly licensed by the Boards of Medicine and Nursing as a nurse practitioner pursuant to § 54.1-2957, and who practices under the supervision of a doctor of medicine, osteopathy, podiatry, or dentistry but is not subject to the practice agreement requirement described in § 54.1-2957.

"Genetic counselor" means a person licensed by the Board to engage in the practice of genetic counseling.

"Healing arts" means the arts and sciences dealing with the prevention, diagnosis, treatment and cure or alleviation of human physical or mental ailments, conditions, diseases, pain or infirmities.

"Medical malpractice judgment" means any final order of any court entering judgment against a licensee of the Board that arises out of any tort action or breach of contract action for personal injuries or wrongful death, based on health care or professional services rendered, or that should have been rendered, by a health care provider, to a patient.

"Medical malpractice settlement" means any written agreement and release entered into by or on behalf of a licensee of the Board in response to a written claim for money damages that arises out of any personal injuries or wrongful death, based on health care or professional services rendered, or that should have been rendered, by a health care provider, to a patient.

"Nurse practitioner" means an advanced practice registered nurse who is jointly licensed by the Boards of Medicine and Nursing pursuant to § 54.1-2957.

"Occupational therapy assistant" means an individual who has met the requirements of the Board for licensure and who works under the supervision of a licensed occupational therapist to assist in the practice of occupational therapy.

"Patient care team" means a multidisciplinary team of health care providers actively functioning as a unit with the management and leadership of one or more patient care team physicians for the purpose of providing and delivering health care to a patient or group of patients.

"Patient care team physician" means a physician who is actively licensed to practice medicine in the Commonwealth, who regularly practices medicine in the Commonwealth, and who provides management and leadership in the care of patients as part of a patient care team.

"Physician assistant" means an individual who has met the requirements of the Board for licensure and who works under the supervision of a licensed doctor of medicine, osteopathy, or podiatry.

"Practice of acupuncture" means the stimulation of certain points on or near the surface of the body by the insertion of needles to prevent or modify the perception of pain or to normalize physiological functions, including pain control, for the treatment of certain ailments or conditions of the body and includes the techniques of electroacupuncture, cupping and moxibustion. The practice of acupuncture does not include the use of physical therapy, chiropractic, or osteopathic manipulative techniques; the use or prescribing of any drugs, medications, serums or vaccines; or the procedure of auricular acupuncture as exempted in § 54.1-2901

when used in the context of a chemical dependency treatment program for patients eligible for federal, state or local public funds by an employee of the program who is trained and approved by the National Acupuncture Detoxification Association or an equivalent certifying body.

"Practice of athletic training" means the prevention, recognition, evaluation, and treatment of injuries or conditions related to athletic or recreational activity that requires physical skill and utilizes strength, power, endurance, speed, flexibility, range of motion or agility or a substantially similar injury or condition resulting from occupational activity immediately upon the onset of such injury or condition; and subsequent treatment and rehabilitation of such injuries or conditions under the direction of the patient's physician or under the direction of any doctor of medicine, osteopathy, chiropractic, podiatry, or dentistry, while using heat, light, sound, cold, electricity, exercise or mechanical or other devices.

"Practice of behavior analysis" means the design, implementation, and evaluation of environmental modifications, using behavioral stimuli and consequences, to produce socially significant improvement in human behavior, including the use of direct observation, measurement, and functional analysis of the relationship between environment and behavior.

"Practice of chiropractic" means the adjustment of the 24 movable vertebrae of the spinal column, and assisting nature for the purpose of normalizing the transmission of nerve energy, but does not include the use of surgery, obstetrics, osteopathy or the administration or prescribing of any drugs, medicines, serums or vaccines. "Practice of chiropractic" shall include performing the physical examination of an applicant for a commercial driver's license or commercial learner's permit pursuant to § 46.2-341.12 if the practitioner has (i) applied for and received certification as a medical examiner pursuant to 49 C.F.R. Part 390, Subpart D and (ii) registered with the National Registry of Certified Medical Examiners.

"Practice of genetic counseling" means (i) obtaining and evaluating individual and family medical histories to assess the risk of genetic medical conditions and diseases in a patient, his offspring, and other family members; (ii) discussing the features, history, diagnosis, environmental factors, and risk management of genetic medical conditions and diseases; (iii) ordering genetic laboratory tests and other diagnostic studies necessary for genetic assessment; (iv) integrating the results with personal and family medical history to assess and communicate risk factors for genetic medical conditions and diseases; (v) evaluating the patient's and family's responses to the medical condition or risk of recurrence and providing client-centered counseling and anticipatory guidance; (vi) identifying and utilizing community resources that provide medical, educational, financial, and psychosocial support and advocacy; and (vii) providing written documentation of medical, genetic, and counseling information for families and health care professionals.

"Practice of medicine or osteopathic medicine" means the prevention, diagnosis and treatment of human physical or mental ailments, conditions, diseases, pain or infirmities by any means or method.

"Practice of occupational therapy" means the therapeutic use of occupations for habilitation and rehabilitation to enhance physical health, mental health, and cognitive functioning and includes the evaluation, analysis, assessment, and delivery of education and training in basic and instrumental activities of daily living; the design, fabrication, and application of orthoses (splints); the design, selection, and use of adaptive equipment and assistive technologies; therapeutic activities to enhance functional performance; vocational evaluation and training; and consultation concerning the adaptation of physical, sensory, and social environments.

"Practice of podiatry" means the prevention, diagnosis, treatment, and cure or alleviation of physical conditions, diseases, pain, or infirmities of the human foot and ankle, including the medical, mechanical and surgical treatment of the ailments of the human foot and ankle, but does not include amputation of the foot proximal to the transmetatarsal level through the metatarsal shafts. Amputations proximal to the metatarsal-phalangeal joints may only be performed in a hospital or ambulatory surgery facility accredited by an organization listed in § 54.1-2939. The practice includes the diagnosis and treatment of lower extremity ulcers; however, the treatment of severe lower extremity ulcers proximal to the foot and ankle may only be performed by appropriately trained, credentialed podiatrists in an approved hospital or ambulatory surgery center at which the podiatrist has privileges, as described in § 54.1-2939. The Board of Medicine shall determine whether a specific type of treatment of the foot and ankle is within the scope of practice of podiatry.

"Practice of radiologic technology" means the application of ionizing radiation to human beings for diagnostic or therapeutic purposes.

"Practice of respiratory care" means the (i) administration of pharmacological, diagnostic, and therapeutic agents related to respiratory care procedures necessary to implement a treatment, disease prevention, pulmonary rehabilitative, or diagnostic regimen prescribed by a practitioner of medicine or osteopathic medicine; (ii) transcription and implementation of the written or verbal orders of a practitioner of medicine or osteopathic medicine pertaining to the practice of respiratory care; (iii) observation and monitoring of signs and symptoms, general behavior, general physical response to respiratory care treatment and diagnostic testing, including determination of whether such signs, symptoms, reactions, behavior or general physical response exhibit abnormal characteristics; and (iv) implementation of respiratory care procedures, based on observed abnormalities, or appropriate

reporting, referral, respiratory care protocols or changes in treatment pursuant to the written or verbal orders by a licensed practitioner of medicine or osteopathic medicine or the initiation of emergency procedures, pursuant to the Board's regulations or as otherwise authorized by law. The practice of respiratory care may be performed in any clinic, hospital, skilled nursing facility, private dwelling or other place deemed appropriate by the Board in accordance with the written or verbal order of a practitioner of medicine or osteopathic medicine, and shall be performed under qualified medical direction.

"Qualified medical direction" means, in the context of the practice of respiratory care, having readily accessible to the respiratory therapist a licensed practitioner of medicine or osteopathic medicine who has specialty training or experience in the management of acute and chronic respiratory disorders and who is responsible for the quality, safety, and appropriateness of the respiratory services provided by the respiratory therapist.

"Radiologic technologist" means an individual, other than a licensed doctor of medicine, osteopathy, podiatry, or chiropractic or a dentist licensed pursuant to Chapter 27 (§ 54.1-2700 et seq.), who (i) performs, may be called upon to perform, or is licensed to perform a comprehensive scope of diagnostic or therapeutic radiologic procedures employing ionizing radiation and (ii) is delegated or exercises responsibility for the operation of radiation-generating equipment, the shielding of patient and staff from unnecessary radiation, the appropriate exposure of radiographs, the administration of radioactive chemical compounds under the direction of an authorized user as specified by regulations of the Department of Health, or other procedures that contribute to any significant extent to the site or dosage of ionizing radiation to which a patient is exposed.

"Radiologic technologist, limited" means an individual, other than a licensed radiologic technologist, dental hygienist, or person who is otherwise authorized by the Board of Dentistry under Chapter 27 (§ 54.1-2700 et seq.) and the regulations pursuant thereto, who performs diagnostic radiographic procedures employing equipment that emits ionizing radiation that is limited to specific areas of the human body.

"Radiologist assistant" means an individual who has met the requirements of the Board for licensure as an advanced-level radiologic technologist and who, under the direct supervision of a licensed doctor of medicine or osteopathy specializing in the field of radiology, is authorized to (i) assess and evaluate the physiological and psychological responsiveness of patients undergoing radiologic procedures; (ii) evaluate image quality, make initial observations, and communicate observations to the supervising radiologist; (iii) administer contrast media or other medications prescribed by the supervising radiologist; and (iv) perform, or assist the supervising radiologist to perform, any other procedure consistent with the guidelines adopted by the American College of Radiology, the American Society of Radiologic Technologists, and the American Registry of Radiologic Technologists.

"Respiratory care" means the practice of the allied health profession responsible for the direct and indirect services, including inhalation therapy and respiratory therapy, in the treatment, management, diagnostic testing, control, and care of patients with deficiencies and abnormalities associated with the cardiopulmonary system under qualified medical direction.

Code 1950, § 54-273; 1950, p. 110; 1958, c. 161; 1960, c. 268; 1966, c. 657; 1970, c. 69; 1973, c. 529; 1975, cc. 508, 512; 1977, c. 127; 1980, c. 157; 1986, c. 439; 1987, cc. 522, 543; 1988, cc. 737, 765; 1991, c. 643; 1994, c. 803; 1995, c. 777; 1996, cc. 152, 158, 470, 937, 980; 1998, cc. 319, 557, 593; 1999, cc. 639, 682, 747, 779; 2000, cc. 688, 814; 2001, c. 533; 2004, c. 731; 2007, c. 861; 2008, cc. 64, 89; 2009, cc. 83, 507; 2010, cc. 715, 725; 2011, cc. 121, 187; 2012, cc. 3, 110, 168, 213, 399; 2014, cc. 10, 266; 2015, c. 302; 2016, c. 93; 2017, c. 171.

The chapters of the acts of assembly referenced in the historical citation at the end of this section may not constitute a comprehensive list of such chapters and may exclude chapters whose provisions have expired.

5/17/2019

Commonwealth of Virginia

REGULATIONS

GOVERNING THE PRACTICE OF Radiologic Technology

VIRGINIA BOARD OF MEDICINE

Title of Regulations: 18 VAC 85-101-10 et seq.

Statutory Authority: § 54.1-2400 and Chapter 29 of Title 54.1 of the *Code of Virginia*

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Part I. General Provisions.

18VAC85-101-10. Definitions.

In addition to definitions in § 54.1-2900 of the Code of Virginia, the following words and terms when used in this chapter shall have the following meanings, unless the context clearly indicates otherwise:

"ACRRT" means the American Chiropractic Registry of Radiologic Technologists.

"ARRT" means the American Registry of Radiologic Technologists.

"Bone densitometry" means a process for measuring bone mineral density by utilization of single x-ray absorptiometry (SXA), dual x-ray absorptiometry (DXA) or other technology that is substantially equivalent as determined by the board.

"Direct supervision" means that a licensed radiologic technologist, doctor of medicine, osteopathy, chiropractic or podiatry is present and is fully responsible for the activities performed by radiologic personnel, with the exception of radiologist assistants.

"Direction" means the delegation of radiologic functions to be performed upon a patient from a licensed doctor of medicine, osteopathy, chiropractic, or podiatry, to a licensed radiologic technologist or a radiologic technologist-limited for a specific purpose and confined to a specific anatomical area, that will be performed under the direction of and in continuing communication with the delegating practitioner.

"ISCD" means the International Society for Clinical Densitometry.

"NMTCB" means Nuclear Medicine Technology Certification Board.

"Radiologist" means a doctor of medicine or osteopathic medicine specialized by training and practice in radiology.

" R.T.(R)" means a person who is currently certified by the ARRT as a radiologic technologist with certification in radiography.

"Traineeship" means a period of activity during which an applicant for licensure as a radiologic technologist works under the direct supervision of a practitioner approved by the board while waiting for the results of the licensure examination or an applicant for licensure as a radiologic technologist-limited working under direct supervision and observation to fulfill the practice requirements in 18VAC85-101-60.

18VAC85-101-20. Public Participation Guidelines.

A separate board regulation, 18VAC85-11, entitled Public Participation Guidelines, provides for involvement of the public in the development of all regulations of the Virginia Board of Medicine.

18VAC85-101-25. Fees.

A. Unless otherwise provided, fees listed in this section shall not be refundable.

B. Initial licensure fees.

1. The application fee for radiologic technologist or radiologist assistant licensure shall be $130.

2. The application fee for the radiologic technologist-limited licensure shall be $90.

3. All examination fees shall be determined by and made payable as designated by the board.

C. Licensure renewal and reinstatement for a radiologic technologist or a radiologist assistant.

1. The fee for active license renewal for a radiologic technologist shall be $135, and the fee for inactive license renewal shall be $70. For 2019, the fees for renewal shall be $108 for an active license as a radiologic technologist and $54 for an inactive license. If a radiologist assistant holds a current license as a radiologic technologist, the renewal fee shall be $50. If a radiologist assistant does not hold a current license as a radiologic technologist, the renewal fee shall be $150. For renewal of a radiologist assistant license in 2019, the fee shall be $40 for a radiologist assistant with a current license as a radiologic technologist and $120 for a radiologist assistant without a current license as a radiologic technologist.

2. An additional fee of $50 to cover administrative costs for processing a late renewal application within one renewal cycle shall be imposed by the board.

3. The fee for reinstatement of a radiologic technologist or a radiologist assistant license that has lapsed for a period of two years or more shall be $180 and shall be submitted with an application for licensure reinstatement.

4. The fee for reinstatement of a license pursuant to § 54.1-2408.2 of the Code of Virginia shall be $2,000.

D. Licensure renewal and reinstatement for a radiologic technologist-limited.

1. The fee for active license renewal shall be $70, and the fee for inactive license renewal shall be $35. For 2019, the fees for renewal shall be $54 for an active license as a radiologic technologist and $28 for an inactive license.

2. An additional fee of $25 to cover administrative costs for processing a late renewal application within one renewal cycle shall be imposed by the board.

3. The fee for reinstatement of a license that has lapsed for a period of two years or more shall be $120 and shall be submitted with an application for licensure reinstatement.

4. The fee for reinstatement of a license pursuant to § 54.1-2408.2 of the Code of Virginia shall be $2,000.

E. Other fees.

1. The application fee for a traineeship as a radiologic technologist or a radiologic technologist-limited shall be $25.

2. The fee for a letter of good standing or verification to another state for licensure shall be $10; the fee for certification of scores to another jurisdiction shall be $25.

3. The fee for a returned check shall be $35.

4. The fee for a duplicate license shall be $5.00, and the fee for a duplicate wall certificate shall be $15.

18VAC85-101-26. Current name and address.

Each licensee shall furnish the board his current name and address of record. All notices required by law or by this chapter to be given by the board to any such licensee shall be validly given when sent to the latest address of record provided or served to the licensee. Any change of name or address of record or the public address, if different from the address of record, shall be furnished to the board within 30 days of such change.

Part II. Licensure Requirements - Radiologist Assistants.

18VAC85-101-27. Educational requirements for radiologist assistants.

An applicant for licensure as a radiologist assistant shall be a graduate of an educational program that is currently recognized by the ARRT for the purpose of allowing an applicant to sit for the ARRT certification examination leading to the Registered Radiologist Assistant credential.

18VAC85-101-28. Licensure requirements.

A. An applicant for licensure as a radiologist assistant shall:

1. Meet the educational requirements specified in 18VAC85-101-27;

2. Submit the required application, fee, and credentials to the board;

3. Hold certification by the ARRT as an R.T.(R) or be licensed in Virginia as a radiologic technologist;

4. Submit evidence of passage of an examination for radiologist assistants resulting in national certification as an Registered Radiologist Assistant by the ARRT; and

5. Hold current certification in Advanced Cardiac Life Support (ACLS).

B. If an applicant has been licensed or certified in another jurisdiction as a radiologist assistant or a radiologic technologist, he shall provide information on the status of each license or certificate held.

C. An applicant who fails the ARRT examination for radiologist assistants shall follow the policies and procedures of the ARRT for successive attempts.

Part III. Licensure Requirements - Radiologic Technologist.

18VAC85-101-30. Educational requirements for radiologic technologists.

An applicant for licensure as a radiologic technologist shall be a graduate of an educational program acceptable to the ARRT for the purpose of sitting for the ARRT certification examination.

18VAC85-101-40. Licensure requirements.

A. An applicant for board licensure shall:

1. Meet the educational requirements specified in 18VAC85-101-30;

2. Submit the required application, fee, and credentials to the board; and

3. Submit evidence of passage of an examination resulting in certification by the ARRT or the NMTCB.

B. If an applicant has been licensed or certified in another jurisdiction, he shall provide information on the status of each license or certificate held and verification from that jurisdiction of any current, unrestricted license.

C. An applicant who fails the ARRT or NMTCB examination shall follow the policies and procedures of the certifying body for successive attempts.

18VAC85-101-50. (Repealed).

Part IV. Licensure Requirements - Radiologic Technologist-Limited.

18VAC85-101-55. Educational requirements for radiologic technologists-limited.

A. An applicant for licensure as a radiologic technologist-limited shall be trained by one of the following:

1. Successful completion of educational coursework that is directed by a radiologic technologist with a bachelor's degree and current ARRT certification, has instructors who are licensed radiologic technologists or doctors of medicine or osteopathic medicine who are board-certified in radiology, and has a minimum of the following coursework:

a. Image production/equipment operation —25 clock hours;

b. Radiation protection —15 clock hours; and

c. Radiographic procedures in the anatomical area of the radiologic technologist-limited's practice —10 clock hours taught by a radiologic technologist with current ARRT certification or a licensed doctor of medicine, osteopathy, podiatry or chiropractic;

2. An ACRRT-approved program;

3. The ISCD certification course for bone densitometry; or

4. Any other program acceptable to the board.

B. A radiologic technologist-limited who has been trained through the ACRRT-approved program or the ISCD certification course and who also wishes to be authorized to perform x-rays in other anatomical areas shall meet the requirements of subdivision A 1 of this section.

18VAC85-101-60. Licensure requirements.

A. An applicant for licensure by examination as a radiologic technologist-limited shall submit:

1. The required application and fee as prescribed by the board;

2. Evidence of successful completion of an examination as required in this section; and

3. Evidence of completion of training as required in 18VAC85-101-55.

B. To qualify for limited licensure to practice under the direction of a doctor of medicine or osteopathic medicine with the exception of practice in bone densitometry, the applicant shall:

1. Provide evidence that he has received a passing score as determined by the board on the core section of the ARRT examination for Limited Scope of Practice in Radiography;

2. Meet one of the following requirements:

a. Provide evidence that he has received a passing score as determined by the board on the section of the ARRT examination on specific radiographic procedures, depending on the anatomical areas in which the applicant intends to practice; or

b. Until the ARRT offers an examination for limited licensure in the radiographic procedures of the abdomen and pelvis, the applicant may qualify for a limited license by submission of a notarized statement from a licensed radiologic technologist or doctor of medicine or osteopathy attesting to the applicant's training and competency to practice in that anatomical area as follows:

(1) To perform radiographic procedures on the abdomen or pelvis, the applicant shall have successfully performed during the traineeship at least 25 radiologic examinations on patients of the abdomen or pelvis under the direct supervision and observation of a licensed radiologic technologist or a doctor of medicine or osteopathy. The notarized statement shall further attest to the applicant's competency in the areas of radiation safety, positioning, patient instruction, anatomy, pathology and technical factors.

(2) When a section is added to the limited license examination by the ARRT that includes the abdomen and pelvis, the applicant shall provide evidence that he has received a passing score on that portion of the examination as determined by the board; and

3. Provide evidence of having successfully performed in a traineeship at least 10 radiologic examinations on patients in the anatomical area for which he is seeking licensure under the direct supervision and observation of a licensed radiologic technologist or a doctor of medicine or osteopathy. A notarized statement from the supervising practitioner shall attest to the applicant's competency in the areas of radiation safety, positioning, patient instruction, anatomy, pathology and technical factors.

C. To qualify for limited licensure to practice in bone densitometry under the direction of a doctor of medicine, osteopathy, or chiropractic, the applicant shall either:

1. Provide evidence that he has received a passing score as determined by the board on the core section of the ARRT examination for Limited Scope of Practice in Radiography; and

a. The applicant shall provide a notarized statement from a licensed radiologic technologist or doctor of medicine, osteopathy, or chiropractic attesting to the applicant's training and competency to practice in that anatomical area. The applicant shall have successfully performed at least 10 examinations on patients for bone density under the direct supervision and observation of a licensed radiologic technologist or a doctor of medicine or osteopathy; or

b. When a section is added to the limited license examination by the ARRT that includes bone densitometry, the applicant shall provide evidence that he has received a passing score on that portion of the examination as determined by the board; or

2. Provide evidence that he has taken and passed an examination resulting in certification in bone densitometry from the ISCD or any other substantially equivalent credential acceptable to the board.

D. To qualify for a limited license in the anatomical areas of the spine or extremities or in bone densitometry to practice under the direction of a doctor of chiropractic, the applicant shall provide evidence that he has met the appropriate requirements of subsection B, taken and passed the appropriate requirements of subsection C for bone densitometry only, or taken and passed an examination by the ACRRT.

E. To qualify for a limited license in the anatomical area of the foot and ankle to practice under the direction of a doctor of podiatry, the applicant shall provide evidence that he has taken and passed an examination acceptable to the board.

F. An applicant who fails the examination shall be allowed two more attempts to pass the examination after which he shall reapply and take additional educational hours which meet the criteria of 18VAC85-101-70.

18VAC85-101-61. (Repealed.)

18VAC85-101-70 to 18VAC85-101-90. (Repealed.)

Part V. Practice of Radiologist Assistants.

18VAC85-101-91. General requirements.

A. A licensed radiologist assistant is authorized to:

1. Assess and evaluate the physiological and psychological responsiveness of patients undergoing radiologic procedures;

2. Perform patient assessment, and assist in patient management and patient education;

3. Evaluate image quality, make initial observations, and communicate observations to the supervising radiologist;

4. Administer contrast media or other medications prescribed by the supervising radiologist; and

5. Perform, or assist the supervising radiologist in performing, imaging procedures consistent with the guidelines adopted by the American College of Radiology, the American Society of Radiologic Technologists, and the American Registry of Radiologic Technologists.

B. A licensed radiologist assistant is not authorized to:

1. Provide official interpretation of imaging studies; or

2. Dispense or prescribe medications.

18VAC85-101-92. Supervision of radiologist assistants.

A radiologist assistant shall practice under the direct supervision of a radiologist. Direct supervision shall mean that the radiologist is present in the facility and immediately available to assist and direct the performance of a procedure by a radiologist assistant. The supervising radiologist may determine that direct supervision requires his physical presence for the performance of certain procedures, based on factors such as the complexity or invasiveness of the procedure and the experience and expertise of the radiologist assistant.

Part VI. Practice of Radiologic Technologists.

18VAC85-101-100. General requirements.

A. All services rendered by a radiologic technologist shall be performed only upon direction of a licensed doctor of medicine, osteopathy, chiropractic, or podiatry.

B. Licensure as a radiologic technologist is not required for persons who are employed by a licensed hospital pursuant to §54.1-2956.8:1 of the Code of Virginia.

18VAC85-101-110. Individual responsibilities to patients and to licensed doctor of medicine, osteopathy, chiropractic, or podiatry.

A. The radiologic technologist's responsibilities are to administer and document procedures consistent with his education and certifying examination and within the limit of his professional knowledge, judgment and skills.

B. A radiologic technologist shall maintain continuing communication with the delegating practitioner.

18VAC85-101-120. Supervisory responsibilities.

A. A radiologic technologist shall supervise no more than four radiologic technologists-limited or three trainees at any one time.

B. A radiologic technologist shall be responsible for any action of persons performing radiologic functions under the radiologic technologist's supervision or direction.

C. A radiologic technologist may not delegate radiologic procedures to any unlicensed personnel except those activities that are available without prescription in the public domain to include but not limited to preparing the patient for radiologic procedures and post radiologic procedures. Such nonlicensed personnel shall not perform those patient care functions that require professional judgment or discretion.

Part VII. Practice of Radiologic Technologist-Limited.

18VAC85-101-130. General requirements.

A. A radiologic technologist-limited is permitted to perform radiologic functions within his capabilities and the anatomical limits of his training and examination. A radiologic technologist-limited is responsible for informing the board of the anatomical area or areas in which he is qualified by training and examination to practice.

B. A radiologic technologist-limited shall not administer contrast media or radiopharmaceuticals or perform mammography, fluoroscopic procedures, computerized tomography, or vascular-interventional procedures. The radiologic technologist-limited is responsible to a licensed radiologic technologist, or doctor of medicine, osteopathy, chiropractic, or podiatry.

18VAC85-101-140. Individual responsibilities to patients and licensed radiologic technologist, doctor of medicine, osteopathy, chiropractic, or podiatry.

A. The radiologic technologist-limited's procedure with the patient shall only be made after verbal or written communication, or both, with the licensed radiologic technologist, doctor of medicine, osteopathy, chiropractic, or podiatry.

B. The radiologic technologist-limited's procedures shall be made under direct supervision.

C. A radiologic technologist-limited, acting within the scope of his practice, may delegate nonradiologic procedures to an unlicensed person, including but not limited to preparing the patient for radiologic procedures and post radiologic procedures. Such nonlicensed personnel shall not perform those patient care functions that require professional judgment or discretion.

18VAC85-101-145. Registration for voluntary practice by out-of-state licensees.

Any radiologist assistant, radiologic technologist or radiologic technologist-limited who does not hold a license to practice in Virginia and who seeks registration to practice under subdivision 27 of §54.1-2901 of the Code of Virginia on a voluntary basis under the auspices of a publicly supported, all volunteer, nonprofit organization that sponsors the provision of health care to populations of underserved people shall:

1. File a complete application for registration on a form provided by the board at least five business days prior to engaging in such practice. An incomplete application will not be considered;

2. Provide a complete record of professional licensure in each state in which he has held a license and a copy of any current license;

3. Provide the name of the nonprofit organization, the dates and location of the voluntary provision of services;

4. Pay a registration fee of $10; and

5. Provide a notarized statement from a representative of the nonprofit organization attesting to its compliance with provisions of subdivision 27 of §54.1-2901 of the Code of Virginia.

Part VIII. Renewal of Licensure.

18VAC85-101-150. Biennial renewal of license.

A. A radiologist assistant, radiologic technologist or radiologic technologist-limited who intends to continue practice shall renew his license biennially during his birth month in each odd-numbered year and pay to the board the prescribed renewal fee.

B. A license that has not been renewed by the first day of the month following the month in which renewal is required shall be expired.

C. An additional fee as prescribed in 18VAC85-101-25 shall be imposed by the board.

D. In order to renew an active license as a radiologic technologist, a licensee shall attest to having completed 24 hours of continuing education as acceptable to the ARRT within the last biennium.

E. In order to renew an active license as a radiologic technologist-limited, a licensee shall attest to having completed 12 hours of continuing education within the last biennium that corresponds to the anatomical areas in which the limited licensee practices. Hours shall be acceptable to the ARRT, or by the ACRRT for limited licensees whose scope of practice is chiropractic, or by any other entity approved by the board for limited licensees whose scope of practice is podiatry or bone densitometry.

F. In order to renew an active license as a radiologist assistant, a licensee shall attest to having completed 50 hours of continuing education as acceptable to the ARRT within the last biennium. A minimum of 25 hours of continuing education shall be recognized by the ARRT as intended for

radiologist assistants or radiologists and shall be specific to the radiologist assistant's area of practice. Continuing education hours earned for renewal of a radiologist assistant license shall satisfy the requirements for renewal of a radiologic technologist license.

G. Up to two continuing education hours may be satisfied through delivery of radiological services, without compensation, to low-income individuals receiving services through a local health department or a free clinic organized in whole or primarily for the delivery of health services. One hour of continuing education may be credited for three hours of providing such volunteer services. For the purpose of continuing education credit for voluntary service, documentation by the health department or free clinic shall be acceptable.

H. Other provisions for continuing education shall be as follows:

1. A practitioner shall be exempt from the continuing education requirements for the first biennial renewal following the date of initial licensure in Virginia.

2. The practitioner shall retain in his records the Continued Competency Activity and Assessment Form available on the board's website with all supporting documentation for a period of four years following the renewal of an active license.

3. The board shall periodically conduct a random audit of its active licensees to determine compliance. The practitioners selected for the audit shall provide all supporting documentation within 30 days of receiving notification of the audit.

4. Failure to comply with these requirements may subject the licensee to disciplinary action by the board.

5. The board may grant an extension of the deadline for satisfying continuing competency requirements, for up to one year, for good cause shown upon a written request from the licensee prior to the renewal date.

6. The board may grant an exemption for all or part of the requirements for circumstances beyond the control of the licensee, such as temporary disability, mandatory military service, or officially declared disasters.

18VAC85-101-151. Reinstatement.

A. A licensee who allows his license to lapse for a period of two years or more and chooses to resume his practice shall submit to the board a new application, information on practice and licensure in other jurisdictions during the period in which the license was lapsed, evidence of completion of hours of continuing education equal to those required for a biennial renewal and the fees for reinstatement of his license as prescribed in 18VAC85-101-25.

B. A licensee whose license has been revoked by the board and who wishes to be reinstated shall submit a new application to the board, fulfill additional requirements as specified in the order from the board, and pay the fee for reinstatement of his license as prescribed in 18VAC85-101-25.

18VAC85-101-152. Inactive license.

A. A licensed radiologist assistant, radiologic technologist or radiologic technologist-limited who holds a current, unrestricted license in Virginia may, upon a request on the renewal application and submission of the required fee, be issued an inactive license. The holder of an inactive license shall not be required to maintain continuing education hours and shall not be entitled to perform any act requiring a license to practice radiography in Virginia.

B. To reactivate an inactive license, a licensee shall:

1. Submit the required application;

2. Pay a fee equal to the difference between the current renewal fee for inactive licensure and the renewal fee for active licensure; and

3. Verify that he has completed continuing education hours equal to those required for the period in which he held an inactive license in Virginia, not to exceed one biennium.

C. The board reserves the right to deny a request for reactivation to any licensee who has been determined to have committed an act in violation of §54.1-2915 of the Code of Virginia or any provisions of this chapter.

18VAC85-101-153. Restricted volunteer license.

A. A licensed radiologist assistant, radiologic technologist or a radiologic technologist-limited who held an unrestricted license issued by the Virginia Board of Medicine or by a board in another state as a licensee in good standing at the time the license expired or became inactive may be issued a restricted volunteer license to practice without compensation in a clinic that is organized in whole or in part for the delivery of health care services without charge in accordance with §54.1-106 of the Code of Virginia.

B. To be issued a restricted volunteer license, a licensee shall submit an application to the board that documents compliance with requirements of §54.1-2928.1 of the Code of Virginia and the application fee prescribed in 18VAC85-101-25.

C. The licensee who intends to continue practicing with a restricted volunteer license shall renew biennially during his birth month, meet the continued competency requirements prescribed in subsection D of this section, and pay to the board the renewal fee prescribed in 18VAC85-101-25.

D. The holder of a restricted volunteer license shall not be required to attest to hours of continuing education for the first renewal of such a license. For each renewal thereafter, a licensed radiologic technologist shall attest to having completed 12 hours of Category A continuing education as acceptable to and documented by the ARRT within the last biennium. A radiologic technologist-limited shall attest to having completed six hours of Category A continuing education within the last biennium that corresponds to the anatomical areas in which the limited licensee practices. Hours shall be acceptable to and documented by the ARRT or by any other entity approved by the board for limited licensees whose scope of practice is podiatry or bone densitometry.

18VAC85-101-160. [Repealed]

Part IX. Standards of Professional Conduct.

18VAC85-101-161. Confidentiality.

A practitioner shall not willfully or negligently breach the confidentiality between a practitioner and a patient. A breach of confidentiality that is required or permitted by applicable law or beyond the control of the practitioner shall not be considered negligent or willful.

18VAC85-101-162. Patient records.

A. Practitioners shall comply with provisions of § 32.1-127.1:03 related to the confidentiality and disclosure of patient records.

B. Practitioners shall properly manage patient records and shall maintain timely, accurate, legible and complete records.

C. Practitioners shall maintain a patient record in accordance with policies and procedures of the employing institution or entity.

18VAC85-101-163. Practitioner-patient communication.

A. Except as provided in § 32.1-127.1:03 F of the Code of Virginia, a practitioner shall accurately present information to a patient or his legally authorized representative in understandable terms and encourage participation in decisions regarding the patient's care.

B. A practitioner shall not deliberately make a false or misleading statement regarding the practitioner's skill or the efficacy or value of a medication, treatment, or procedure prescribed or directed by the practitioner in the treatment of any disease or condition.

C. A practitioner shall refer to or consult with other health care professionals, if so indicated.

D. Practitioners shall adhere to requirements of § 32.1-162.18 of the Code of Virginia for obtaining informed consent from patients prior to involving them as subjects in human research with the exception of retrospective chart reviews.

18VAC85-101-164. Practitioner responsibility.

A practitioner shall not:

1. Perform procedures or techniques or provide interpretations that are outside the scope of his practice or for which he is not trained and individually competent;

2. Knowingly allow subordinates to jeopardize patient safety or provide patient care outside of the subordinate's scope of practice or their area of responsibility. Practitioners shall delegate patient care only to subordinates who are properly trained and supervised;

3. Engage in an egregious pattern of disruptive behavior or interaction in a health care setting that interferes with patient care or could reasonably be expected to adversely impact the quality of care rendered to a patient; or

4. Exploit the practitioner/patient relationship for personal gain.

B. Advocating for patient safety or improvement in patient care within a health care entity shall not constitute disruptive behavior provided the practitioner does not engage in behavior prohibited in A 3 of this section.

18VAC85-101-165. Sexual contact.

A. For purposes of § 54.1-2915 A 12 and A 19 of the Code of Virginia and this section, sexual contact includes, but is not limited to, sexual behavior or verbal or physical behavior which:

1. May reasonably be interpreted as intended for the sexual arousal or gratification of the practitioner, the patient, or both; or

2. May reasonably be interpreted as romantic involvement with a patient regardless of whether such involvement occurs in the professional setting or outside of it.

B. Sexual contact with a patient.
1. The determination of when a person is a patient for purposes of § 54.1-2915 A 19 of the Code of Virginia is made on a case-by-case basis with consideration given to the nature, extent, and context of the professional relationship between the practitioner and the person. The fact that a person is not actively receiving treatment or professional services from a practitioner is not determinative of this issue. A person is presumed to remain a patient until the patient-practitioner relationship is terminated.

2. The consent to, initiation of, or participation in sexual behavior or involvement with a practitioner by a patient does not change the nature of the conduct nor negate the statutory prohibition.

C. Sexual contact between a practitioner and a former patient.

Sexual contact between a practitioner and a former patient after termination of the practitioner-patient relationship may still constitute unprofessional conduct if the sexual contact is a result of the exploitation of trust, knowledge, or influence of emotions derived from the professional relationship.

D. Sexual contact between a practitioner and a key third party shall constitute unprofessional conduct if the sexual contact is a result of the exploitation of trust, knowledge or influence derived from the professional relationship or if the contact has had or is likely to have an adverse effect on patient care. For purposes of this section, key third party of a patient shall mean: spouse or partner, parent or child, guardian, or legal representative of the patient.

E. Sexual contact between a practitioner and a supervisor and a trainee shall constitute unprofessional conduct if the sexual contact is a result of the exploitation of trust, knowledge or

influence derived from the professional relationship or if the contact has had or is likely to have an adverse effect on patient care.

18VAC85-101-166. Refusal to provide information.

A practitioner shall not willfully refuse to provide information or records as requested or required by the board or its representative pursuant to an investigation or to the enforcement of a statute or regulation.