

**RADIOLOGIC TECHNOLOGY CERTIFICATION COMMITTEE (RTCC)
DRAFT MEETING MINUTES**

October 23, 2019

California Department of Public Health

1500 Capitol Avenue
East End Complex
Building 172 Auditorium
Sacramento, California 95814

Frieda Y. Taylor, MS, Chairperson

COMMITTEE MEMBERS PRESENT

Christopher H. Cagnon, PhD, FAAPM	Anita Slechta, MS, BSRT, RT(R)(M), ARRT,
Eric T. Goodman, MD	CRT
Erica Kinne, MD	Mauricio Silva, MD
Daniel K. Lee, DPM, PhD, FACFAS	Hector RiveraMelo, DC, DACBR
Michael L. Puckett, MD, FACR	Lindsey S. Urband, MD

COMMITTEE MEMBERS ABSENT

Ehtisham Mahmud, MD, FACC, FSCAI
Lisa Schmidt, PhD, RT(R)(M), ARRT, CRT

MEETING SUMMARY

I. WELCOME / OPENING REMARKS

Chairperson Taylor called the meeting to order at 9:30 a.m. She introduced the RTCC members as well as the California Department of Public Health-Radiologic Health Branch (CDPH-RHB) staff.

II. APPROVAL OF OCTOBER 25, 2017 RTCC MEETING MINUTES

Chairperson Taylor indicated that only members who were present at the October 25, 2017 RTCC meeting could make a motion to approve or cast a vote of approval, denial, or abstention.

MOTION I

That the committee approve the October 25, 2017 RTCC meeting minutes as drafted.

Motion: Committee Member Puckett

Second: Committee Member Lee

Vote:

5 Yes: Dr. Michael Puckett, Dr. Mauricio Silva, Dr. Hector RiveraMelo, Dr. Daniel Lee, Dr. Christopher Cagnon

0 No

0 Abstain

MOTION PASSED UNANIMOUSLY

Chairperson Taylor noted that the approved minutes would be visible on the CDPH-RHB website no later than 30 days from today.

III. CERTIFICATES OF APPRECIATION: OUTGOING RTCC MEMBERS

Chairperson Taylor presented certificates of appreciation thanking Dr. Christopher Cagnon and Dr. Michael Puckett for their service to the RTCC.

Dr. Puckett, representing physicians and surgeons, and Dr. Cagnon, representing radiologic physicists, have both served two terms.

IV. LEGISLATIVE REGULATORY UPDATE

**Phillip L. Scott, MA, CRT
Senior Health Physicist Regulations Unit
Strategic Planning and Quality Assurance Section**

Mr. Scott encouraged the students to begin to advocate for their profession and to work with their regulated entities. He reviewed the following Legislative/Regulatory items.

- Assembly Bill (AB) 407: Fluoroscopy and radiography permit or certification and continuing education: exceptions
 - Requires CDPH to issue a fluoroscopy supervisor and operator permit to licensed medical doctors (MD), doctors of osteopathy (DO), or doctors of podiatric medicine (DPM) without requiring a permitting examination if the doctor submits to CDPH evidence of completing radiation safety training provided by a facility accredited by the United States Centers for Medicare and Medicaid Services (CMS) under their Conditions for Coverage relating to radiation safety.
 - This proposal would include both fluoroscopy and radiography services.
 - Would require CDPH to provide, for MDs, DOs, and DPMs, that working in a setting that is in compliance with the CMS relating to

radiation safety satisfies continuing education requirements specified in regulation.

Since February the bill has been amended four times. The Senate Appropriations Committee has placed the bill in a suspense file and has help the bill under submission; it can be brought back when the Legislature reconvenes in January 2020.

Mr. Scott recommended for the students to become familiar with the website leginfo.legislature.ca.gov to track California laws and proposed legislation. He then provided an update on regulation.

- Completed:
 - Limited Permit X-ray Bone Densitometry Category – Whole Body Composition Procedures & Terminology Change.
 - Posting of Radiologic Technology Act Authorizing Documents.
 - Radioactive Materials. Includes three regulatory changes to maintain compatibility with the federal government.
- Proposed:
 - DPH-10-005 – Facility requirements for use of X-ray in mammography. Cleans up duplication and inconsistencies occurring between federal and state laws.
 - DPH-10-007 – Requires the therapeutic medical physicist to be authorized.
 - DPH-17-009 – Radiologic Technology Act Regulations: RTCC Recommendations. Addresses the following:
 - Movement of a patient or equipment during fluoroscopic X-ray procedures; Recording of cumulative irradiation time or exposure during fluoroscopic X-ray procedures; Scope of practice of a certified radiologic technologist (CRT); and Experience requirement of individuals who provide training oversight to students during training in radiologic technology.
 - The initial comment period and public hearing have been completed. Currently, RHB is compiling and reviewing those comments and preliminarily, it looks like RHB will make revisions and will then need to go through an additional comment period.

- Next Steps include publication for an additional availability public comment period. This period must be at least 15 days long. This step repeated, multiple times if needed.
- The final filing date is June 19, 2020
- Elimination of the Radiologic Technologist (RT) Fluoroscopy Permit.
 - The approved RTCC recommendation made changes in the requirements for fluoroscopy permits for CRTs.
 - Mr. Scott gave a background of the RT fluoro permit, summarized as follows.
 - The RT Act was enacted in 1969.
 - CRT fluoro use training requirements were established in the 1970s.
 - In 1985 regulations were adopted; due to the Office of Administrative Law's disapproval of the original filing, the RT fluoro permit restrictions were removed.
 - In 2013 the RTCC recommended and approved the proposed removal of the fluoro permit requirement if the CRT had completed a JRCERT program and passed the American Registry of Radiologic Technologists (ARRT) RT exam.
 - In April 2015 a RTCC subcommittee reported that the content in the ARRT RT exam adequately addressed fluoroscopy content. The RTCC accepted the report.
 - Proposed changes to the regulations include removal of the requirement for RTs to obtain a fluoro permit and removal of the CRT certificate for diagnostic only; it will be renewed.

DISCUSSION

Committee Member Slechta noted that there are people in California who are CRTs only. Are we still allowing people to take just the CRT exam? Mr. Scott replied that currently we are. An individual who wants to become a CRT can apply for that; it's for diagnostic or therapeutic. Therapeutic includes the use of fluoro for therapy treatment planning. You can become a CRT without having the fluoro.

Committee Member Slechta asked what will happen for people from other countries who want to become CRTs – will they still have a fluoro test? Mr. Scott

answered that as recommended by the committee, if they come through a JRCERT-accredited radiography program or an ARRT-recognized educational program and have passed the ARRT's radiography exam, then they would not need to obtain a fluoro.

Committee Member Slechta noted that ARRT will not let people from various countries in the Pacific Rim take the exam because they have not had everything a JRCERT school allows. Will California let them take the CRT? Mr. Scott confirmed; they are looking at that issue. Marilyn Cantrell of the Certification Unit stated that they do not evaluate out-of-country applications; they tell those applicants that they can come to California if they do so through the ARRT or graduate from a California approved school.

Committee Member Slechta stated that schools will probably materialize to offer that additional education although none currently exist. She asked if anyone is taking just the CRT. Ms. Cantrell answered that if they fail the ARRT, they can take the CRT, but they still have to meet the California approved school criteria.

Committee Member Puckett asked about the military schools. Can a military radiographer still take just the CRT? Mr. Scott felt that it would follow the same process. Ms. Cantrell stated that the ARRT recognizes the military schools. Committee Member Slechta stated that the JRC recognized military schools.

Committee Member Slechta asked how long it would take, if you are putting these through regulations and they must go through the RTCC before going forward to the legislative office. Mr. Scott answered that it usually takes about three years because of all the levels of approval. We are still working on the fiscal and economic impacts.

Melissa Martin, former RTCC member, referenced the proposed regulations. She questions the move of the fluoroscopy school – which is additional education – into the Physician Assistant (PA) schools. Where is basic education happening? Are those PAs former RTs? Mr. Scott responded that they are not. A PA can obtain just a fluoro permit; that was required by the 2013 legislation. We are relocating the existing PA education in the regulations into the RT fluoro school. It's just a restructuring of the regulations themselves.

Dawn Charman, Program Director at El Camino College, asked for clarification on the diagnostic CRT license renewals. Mr. Scott answered that a person who comes to California will not be issued a CRT-only document because if the person is an RT qualified to have fluoro, fluoro is being folded back into the diagnostic. The impact on an existing RT who does not have a fluoro would be too substantial. The person can retain the diagnostic-only; that would be renewed.

Chairperson Taylor emphasized that this was just the regulations package which does not cover implementation strategies. We work collaboratively within the

branch and with ARRT to ensure that when this rolls out, questions are answered and the transition is smooth for new applicants seeking licensure and for existing applicants.

V. CBCT OPERATORS

Lisa Russell Supervising Health Physicist X-Ray Inspection, Compliance and Enforcement Section

Ms. Russell stated that her objective was to solicit feedback from the committee regarding permitting limited permit technicians (XTs) related to the operation of Cone Beam CT (CBCT) in specific limited settings with additional training.

Registered Dental Assistants and other dental assistants who have had radiation safety training are using CBCT in dental offices and are exempt from needing a permit under the Health and Safety Code Section 106975.

Ms. Russell has received questions from Orthopedics and ENT offices. They have asked if their limited cone beam scans can be done in dental offices; the answer is no; dental offices are only allowed to do scans for dental purposes, they can't do it for an ENT. Ms. Russell described the uses of CBCT in Orthopedics and ENT. Currently CBCT operation requires a permitted doctor or a CRT.

Ms. Russell posed three questions for the committee:

Is this something that should be pursued?

What would the prerequisites be in terms of anatomical scope and digital?

What would those additional requirements look like?

Ms. Russell listed the Title 17 restriction from Section 30447 and noted that XT's are restricted from performing any sort of computerized tomography.

For an extremity cone beam scan, it is 0.013 millisieverts which is 1.3 millirem. For a regular CT of that same body part it is 0.23 millisieverts of 2.3 millirem. Plain films would be .6 millirem. A 2016 Journal of Radiology study showed that 56% of pediatrics patients and 45% of adults upon which the cone beam was used showed a clinical finding not seen on the radiographs. For 68% of those patients, the cone beam affected the clinical management of that patient.

The field of view and technical factors affect the patient dose, the same as with any other radiographic study. The field of view is determined by the physician anyway. There are ways to modify it. Doses can be minimized much more with a cone beam than with a full head CT.

DISCUSSION

The committee discussed the first question, *Is this something that should be pursued?*

Committee Member Cagnon asked what kind of permit the licentiate physician is required to have to supervise this. Ms. Russell answered that it is radiography.

Committee Member Cagnon observed that there is a whole spectrum of these machines with various manufacturers. While the doses are lower than standard CT, they are higher than radiography in general. He stated that there is no standard at all regarding the doses you can give; there are no limits. What dose are they quoting? We need to define them. Ms. Russell responded that these were effective doses and were not taken from manufacturers but from other studies. Committee Member Cagnon mentioned the need for the state to come up with some metrics or standards in terms of dose limits and how they would be calculated.

Committee Member Cagnon felt that the training should have some machine-specific components. He asked if any specific CT training is required for the technologist. Ms. Russell answered that nothing is spelled out in regulations – just that they be trained and competent in the safe use.

Mr. Scott clarified that once you have a CRT, you are authorized. However, under state law, any CT provider must have that equipment accredited by certain organizations such as the American College of Radiology (ACR). Ms. Russell noted that this varies by the accreditation organization. We accept Joint Commission, hospital accreditations which do not specify any type of specific training for CT operators, and Intersocietal Accreditation Commission (IAC) for other outpatient facilities.

Committee Member Slechta asked if currently only CRTs and physicians can do CBCT. Ms. Russell confirmed: Correct, any physician with a radiography permit can do it with no additional training. Committee Member Slechta noted that currently in the XT curriculum there is nothing in CT; are you asking for a new XT category? Ms. Russell answered that she was asking for a possibility of removing or modifying the restriction. She felt that the anatomical scope of the XT and digital requirements should both be in place before the XT goes to extra training.

Committee Member Cagnon asked if the accreditation that applies to CT also applies to cone beam. Ms. Russell answered that initially it was exempt when it was only used in dental settings. Now that it is getting more popular, we have not come to a conclusion on whether those used in clinical settings other than dental should be accredited.

Committee Member Cagnon encouraged some kind of generic training; the ACR guidelines are a place to start. He felt that the manufacturer should train the operator in terms of dose, setup, and anatomical region. He felt that the state should impose standardized dose measurements as quoted by the manufacturer; this should be part of the training for the physician and the technologist/technician.

Committee Member Slechta expressed concern about the CBCT used for the lower extremity: she could see a company coming in and making that much deeper so that it could go up to the femur. She expressed concern about scatter dose and insufficient education. The people operating the equipment must understand what the number on the machine means. Ms. Russell responded that the question was outside of what she was presently asking. Committee Member Slechta emphasized that an educational program should not consist of training by the company; we need to decide on curriculum.

Committee Member Puckett felt that we need to adapt to new technologies as they emerge; he affirmed that we need to address the CBCT issue.

MOTION II

That the committee explore how to accommodate cone beam CT performed by XTs.

Motion: Committee Member Puckett
Second: Committee Member Cagnon

Dr. Cagnon agreed that the technology is here and it is being used. In our diligence to try to do everything properly, we are always 20 years behind. The dose must be both expressed by the manufacturer in a clinically relevant situation, and in some way confirmed by the inspectors. Further, most of the cone beam units have predetermined fields of view, but how much that field encompasses is wholly the determination of the physician. The technologist's role is to be aware of the limitation, collimation, and extent of the field. The limited license technician venue should be extremely limited to a certain body part. The XT exploration should include dose, body part, generic CT training, and specific machine training.

Vote:

9 Yes: Dr. Michael Puckett, Professor Anita Slechta, Dr. Eric Goodman, Dr. Lindsey Urband, Dr. Erica Kinne, Dr. Mauricio Silva, Dr. Hector RiveraMelo, Dr. Daniel Lee, Dr. Christopher Cagnon

0 No

0 Abstain

MOTION PASSED UNANIMOUSLY

The committee discussed the question, *What would the prerequisites be in terms of anatomical scope and digital?*

Committee Member Slechta suggested adding *dose* to the question. Ms. Russell responded that the question concerned current requirements; additional requirements would fall under the third question.

Committee Member Cagnon felt that *dose* should certainly be included. The starting point would be: Are the operator and the physician aware of what the vendor claims the *dose* to be? It is up to the physics community to then discern how to validate that.

MOTION III

That the committee accept the current requirements of anatomical scope and digital to be prerequisite.

Motion: Committee Member Slechta

Second: Committee Member Puckett

Committee Member RiveraMelo asked for a recap on what the anatomic scope consists of. Ms. Russell responded that it would be limited to skull and extremities.

AMENDED MOTION III

The committee moved to accept the current requirements of anatomical scope (limited to skull or extremities) and digital to be prerequisite.

Ms. Russell asked if the committee wanted to include the leg-podiatric scope. They agreed.

Committee Member Lee suggested stating *c) extremities, d) leg-podiatric, and e) skull* for clarity on the anatomical piece.

Committee Member Puckett stated that he was open to allow any XT with these existing limited scopes, including dental, to apply cone beam CT.

FRIENDLY AMENDMENT

Committee Member Slechta added *dental laboratory* to the anatomical scopes.

Mr. Scott confirmed that in the Laboratory category they have authority over people who operate a dental X-ray laboratory. They issue a Dental Laboratory category to individuals to perform it. They use this equipment for dental purposes on the order of a licensed dentist.

Vote:

9 Yes: Dr. Michael Puckett, Professor Anita Slechta, Dr. Eric Goodman, Dr. Lindsey Urband, Dr. Erica Kinne, Dr. Mauricio Silva, Dr. Hector RiveraMelo, Dr. Daniel Lee, Dr. Christopher Cagnon

0 No

0 Abstain

MOTION PASSED UNANIMOUSLY

The committee addressed the question, *What would those additional requirements look like?*

MOTION IV

That the committee recommend that training should include a) dose aspects (how the dose is defined and the magnitude of the dose) and b) that there be a machine-specific component of that training.

Motion: Committee Member Cagnon

Second: Committee Member Goodman

Committee Member Slechta felt that we should put together a subcommittee that can look up curriculum and components for CT in a deliberate fashion. It would address dose.

FRIENDLY AMENDMENT

Add CT curriculum that includes multiple factors found at a national curricular level.

Committee Member Goodman felt that at this point the committee was going into too much detail. We have agreed to additional requirements of training and continuing education, so this is part of the process of bringing CBCT into our realm.

Committee Member Cagnon stated that he had made his motion under the assumption that the RTCC would work with the RHB to investigate allowing limited license technicians to do this. He clarified his motion: that part of the discussion of the RTCC investigating and supporting the RHB would be to

include training: general CT training, as well as specific machine training and dose training.

Vote:

8 Yes: Dr. Michael Puckett, Dr. Eric Goodman, Dr. Lindsey Urband, Dr. Erica Kinne, Dr. Mauricio Silva, Dr. Hector RiveraMelo, Dr. Daniel Lee, Dr. Christopher Cagnon

1 No: Professor Anita Slechta

0 Abstain

MOTION PASSED

VI. PROPOSAL TO DISCONTINUE THE USE OF GONADAL SHIELDING FOR RADIOGRAPHIC AND FLUOROSCOPIC EXAMS – AAPM PROPOSAL WITH ACR ENDORSEMENT

**Melissa C. Martin, MS, DABR, FACR, FAAPM
Therapy Physics Inc.**

Ms. Martin stated that she would discuss whether gonadal shielding is really a best practice; the effectiveness of gonadal shielding; the impact of automatic exposure control; radio-sensitivity of the vital organs being shielded; the psychological benefits; and next steps.

She gave a historical perspective. Radiation doses from diagnostic exams today have dropped by a factor of 20-25 times from the 1950's due to techniques done with modern digital equipment.

The theory in 1950 was that gonadal shielding reduces gonadal doses to less than 10% of the original dose. This was an error that has been continued all this time. Physicists have made actual measurements using anthropomorphic phantoms and TLDs, and different ways we can measure the dose from these exams.

The problem we are encountering to make this change is that failure to perform gonadal shielding still results in severe disciplinary action against technologists.

Ms. Martin read the existing state regulation regarding gonadal shielding, CCR Title 17, section 30308(b)(4).

Ms. Martin addressed the question of whether accurately placed shields are effective. For males, a flat lead shield can reduce the dose to the region of the testes of an adult anthropomorphic phantom by about 36%. Although historically it was thought that you were reducing the dose with the shield to less than 10%, realistically, the dose from scatter is 7 times higher than it is from the primary. Consequently, the dose is still about 64-65% of the dose without the shield.

For females, we hope for a reduction of 0-20% if the shield is positioned in the right place. Scattered X-rays reaching the ovaries will give about 80-90% of the original dose. The varied location of the ovaries more than 50% of the time places them outside the region of the primary shielding.

The biggest problem is that you are placing a relatively large piece of lead and blocking out a large portion of the patient's anatomy that may be of interest to the radiologist. If that shield is not in exactly the right place you have eliminated important diagnostic information.

A better idea was to use two side shields over where we think the ovaries are. At most this will give a 20% reduction. Also, a significant portion of the time, the ovaries will be outside of where you think the primary shield has protected them. Surface shielding is much less effective when the ovaries are at a depth inside the pelvis and scatter radiation is what contributes the dose.

With Automatic Exposure Control (AEC), the sensor can be blocked resulting in overexposing the patient. When the shield is over one of the photocells, it drives the dose higher; the dose area product will increase anywhere from 63-150% in a five-year-old and the adult phantoms when you shield the sensor.

The International Committee on Radiation Protection Report 103 deals with radio-sensitivity of organs; they have recently decreased the gonadal tissue weighting factor from .2 to .08. They have increased the weighting factor for colon, stomach, liver, and bone marrow to .12. These organs are now considered more sensitive than the gonads which is a very different approach than in 1950.

Currently, we are shielding a less sensitive organ at the expense of the more sensitive organs for the psychological benefit. Psychologically, the patient's parents will feel reassured if they are told that a shield is being used on the patient. However there is now a much greater risk of exposing the organs with a higher sensitivity value than the gonads.

We need to educate the caregivers, students, and parents to work through this transition in perspective. We propose that the RTCC consider implementing this recommended change that is coming from the American Association of Physicists in Medicine and the ACR. We do not need to be using secondary shielding to provide a false sense of security.

The National Council on Radiation Protection and Measurements (NCRP) Scientific Committee 4.11 statement regarding gonadal shielding during abdominal and pelvic radiology provides recommendations and guidance that addresses newer information and current understanding on possible health effects of gonadal exposures of both adult and pediatric patients. Changes to existing regulations are needed regarding gonadal shielding during pelvic and abdominal radiology. We have the endorsement of NCRP as well as the endorsements of Image Gently, the ACR, and the physicists. All are working with

the Conference of Radiation Control Program Directors (CRCPD) to change the diagnostic recommendation to eliminate the recommendation for gonadal shielding during pelvic radiology.

Ms. Martin reviewed the American Association of Physicists in Medicine (AAPM) position statement that patient gonadal and fetal shielding during X-ray based diagnostic imaging should be discontinued as a routine practice. Additionally, the AAPM recommends that radiologic technologist educational programs (including patient outreach efforts) provide information about the limited utility and potential drawbacks of gonadal and fetal shielding. It included a recommendation not to put lead aprons on patients undergoing CT exams; if that piece of lead is moved into the field of view, the CT is set up to automatically go to the maximum exposure possible. The concluding sentence of the statement was as follows:

“All modern X-ray imaging systems use AEC and the presence of shielding in the imaging field of view can drastically increase X-ray output, increasing patient radiation dose and degrading image quality.”

DISCUSSION

Committee Member Urband asked for clarification that this is for extremity X-rays as well as abdominal X-rays. Ms. Martin replied that they had looked primarily at the abdomen.

Committee Member Cagnon commented that the positioning of the extremities and orientation of the body are much more critical than the use of shielding. He warned of the risk of repeats to collimation. He emphasized the importance of protocols – he has seen a tenfold change in dose for a given kind of X-ray because there is no standardization.

MOTION V

That the RTCC recommend that the requirement for gonadal shielding during abdominal and pelvic radiography be eliminated for these reasons.

Motion: Committee Member Puckett

Second: Committee Member Kinne

Committee Member Slechta had researched and found that collimation is far superior to lead shielding. Her sole criticism was that the physicist group had not built a coalition in the United States; the American Society of Radiologic Technologists (ASRT) did not know anything about this. They have rejected this until they analyze it. That is a problem for educators who have curriculum approved by the JRCERT – that curriculum is the ASRT curriculum.

Committee Member Slechta asked how the physicist task force is going. Ms. Martin acknowledged that the physicists had taken a top-down approach. They are now trying to work with the educators to get the curriculum changed.

Mr. Scott commented that Section 30308 was adopted in 1962 under the radiation control law. RTCC did not exist then and its jurisdiction is the Radiologic Technology Act. Any recommendation is at the discretion of the Department and is not a mandatory requirement.

Committee Member Silva asked if the motion includes X-ray, fluoro and CT. If we eliminate that, does it include the use of gonadal shielding for providers that are actually giving that, specifically fluoroscopy? Committee Member Puckett affirmed. He was suggesting that the state roll back any regulatory requirement, leaving it within the realm of art of practice, and he was suggesting that gonadal shielding should not be used.

Committee Member Silva asked if that included removing the lead apron from the providers in the room. Committee Member Puckett replied that it did not; the problem is in the primary beam of the X-ray. Providers need shielding from the scatter.

Committee Member RiveraMelo suggested for the motion to state just the elimination of 30308(b). Committee Member Puckett confirmed: eliminate the statutory or regulatory requirement of patient gonadal shielding during radiography.

Committee Member Cagnon added that the operator benefits from shielding. This motion was strictly for the patient.

Linda Kroger, UC Davis Medical Center, stated that she is on the AAPM CARES Committee. It comprises representatives of ASRT and the education groups mentioned earlier. They are developing FAQ sheets for technologists and physicians as well as patients and guardians. They are also working on the education materials that will change the programs mentioned earlier. AAPM has realized their error in delivering the information last April without including some key stakeholders. They are trying to rectify that now through the CARES Committee.

MOTION V RESTATED

That the committee recommend to remove regulatory language regarding patient gonadal shielding from Title 17, Section 30308 (b) (4).

Vote:

8 Yes: Dr. Michael Puckett, Professor Anita Slechta, Dr. Eric Goodman, Dr. Lindsey Urband, Dr. Erica Kinne, Dr. Hector RiveraMelo, Dr. Daniel Lee, Dr. Christopher Cagnon

0 No

1 Abstain: Dr. Mauricio Silva

MOTION PASSED

VII. LUNCH

11:45 a.m. – 1:15 p.m.

VIII. GRADUATING TO EMPLOYMENT

**Melissa Wallschlaeger, MSRS, RT(R)(M), CRT
Program Director II, Radiography American Career College**

Ms. Wallschlaeger began by emphasizing the importance of radiography to the healthcare industry.

The Bureau of Labor Statistics cites graduation from accredited programs and multiple certifications as enabling the best job prospects for technologists.

Non-invasive imaging is expected to increase in demand as the baby boomer population ages.

Upon certification and licensure, current graduates who have delays in employment will experience missed opportunities, wage loss, and skills decay. This is because after passing the ARRT exam and waiting to obtain the CRT license, employment is on hold.

Ms. Wallschlaeger showed an example timeline for a student completing a program, listing the significant dates. She showed amounts of income that can be lost during the six weeks or eight weeks spent waiting for the CRT license.

The job outlook for radiology between 2016 and 2026 per the Bureau of Labor Statistics is 13% -- faster than average for all occupations. Ms. Wallschlaeger showed California State Occupational Employment and Wage Estimates for May 2018.

During the 1,850 hours spent working at the clinical facilities, the student can shine and possibly be hired at that site.

Last July at the program advisory meeting of her two clinical facilities, Ms. Wallschlaeger had asked members how the current timeline of ARRT certification to State of California certification impacts their hiring practices of radiologic technologists. Most responded that it does cause a delay, and most reported

that they cannot hire a graduate that they would want because they need to fill a position quickly.

Ms. Wallschlaeger also asked them if they would support an interim permit for state licensure based on a graduate attaining ARRT certification. Almost all said they would support it.

Ms. Wallschlaeger proposed the following:

- Radiography graduates be eligible for hire upon passing the ARRT examination.
- The graduate will work under a California Radiologic Health Branch (RHB) interim permit while the CRT application is being processed.

She provided details and cited the State of California Board of Registered Nursing interim permit regulation for nurses in Title 16, Section 1414. Based on this example, she wanted to demonstrate that a regulation, process and procedure could be put in place to help radiography graduates start their professional career more quickly.

She offered to clarify some points of her presentation: The proposal only corresponds for those radiography graduates who are taking and passing the ARRT examination before getting their CRT; ARRT certification must be in place. She suggested that the fiscal impact for the state would be zero due to the CRT certification would still be paid for.

DISCUSSION

Committee Member Slechta noted that in the '80s, there had been an interim CRT. Since currently the nurses have one, would it be possible for us to have one again? Mr. Scott answered that we do have the authority under Health and Safety Code Section 107020. Committee Member Slechta explained why the old interim permit had been eliminated.

Committee Member Slechta asked about the cost of an interim permit which Ms. Wallschlaeger had listed as zero. Ms. Wallschlaeger replied that a student's ARRT documentation would give them the ability to obtain employment. It would not be a physical permit.

Ms. Wallschlaeger continued that many facilities currently allow graduates a window period to obtain their fluoroscopy license.

Mr. Scott stated that if the recommendation came through, the branch would have to consider that issue.

Committee Member Cagnon observed that in one of the models presented, if a student did not pass, it would be incumbent on the employer and employee to rectify the situation. In his experience, anything requiring additional action down the road is problematic. That is where violations start. Ms. Wallschlaeger responded that violations also start when technologists do not renew their licenses.

Lorenza Clausen, technologist, commented that the facility where she is employed requires the fluoro upon hiring. How would this affect technologists coming into the state who need the fluoro permit and are also waiting? Ms. Wallschlaeger answered that fluoroscopy will be dependent on the facility's hiring practice. Ms. Clausen responded that this temporary permit would give an unfair advantage to facilities that don't require the fluoro permit immediately.

Mr. Scott read the department law explaining its authority to issue temporary permits.

Committee Member Puckett asked if this scheme would work on the inspection side. Ms. Russell stated that it would not be an inspection problem other than a slight increase in workload for verifying those students with the ARRT.

Committee Member Slechta commented that this would give an advantage to someone coming from out of state. It goes back to the first date of employment issue.

Dan Wang, second year student, asked how travelers are able to work in California without getting a CRT. Ms. Wallschlaeger replied that they do have to have it; they have multiple licenses.

Rebecca Galen, second year student, asked a question regarding recent graduates working according to the discretion of the employer: Would the term be contract, per diem, full-time or part-time? Ms. Wallschlaeger replied that it would be up to the facility itself. Each has different policies and procedures through their HR department. Ms. Galen asked if the facility would be eligible to provide 40 hours a week. Ms. Wallschlaeger answered that it would still be up to the facility.

Committee Member Slechta commented that in the past, the interim permit has been used as if the person were already a CRT. Another problem is that in a bureaucracy there exists human error; a CRT application may not get processed in exactly 30 days. There is some risk involved if inspectors are looking for a time period.

Mr. Scott stated that under California law, once the Legislature has adopted legislation that encompasses an entire field, then that law applies to that entire field. With this suggestion for interim permits, the employer would issue something for purposes of the Radiologic Technology Act. That cannot happen

because the Legislature has enacted the Act. It must be enforced by the CDPH to ensure that individuals are certified pursuant to the adopted standards. The employer cannot issue a temporary permit.

IX. ALLOWING RESIDENTS WORKING IN CALIFORNIA WITH A POSTGRADUATE TRAINING LICENSE (PTL) TO OBTAIN A CDPH SUPERVISOR OPERATOR PERMIT

**Tudor Hughes, FRCR,
Professor of Clinical Radiology
Radiology Resident Program Director
Vice Chair of Education
Department of Radiology
UCSD Medical Center**

Dr. Hughes addressed a potential problem in the near future that radiology residents may not be able to obtain a Supervisor and Operator Permit.

He stated that currently, medical students or residents who have done four years of medical school training and 1 year as an intern can apply to the Medical Board of California for a full license. With a full license they can apply to CDPH for a supervisor and operator permit, which allows them to operate independently of the faculty. As of January 1, 2020, the Medical Board of California is no longer issuing full licenses.

On January 1, 2020 the resident will be able to obtain a postgraduate training license which allows them to operate as a physician within their school of medicine. This PTL is not a full license. Two years into their residency they can apply for a full medical license, at which point they can apply for the Supervisor and Operator Permit.

Dr. Hughes outlined the current program of resident training. They first take an extensive eLearning module online for learning physics and safety. They take a course called Fluoroscopy On-Line. They then do a practical session with the Radiation Physics and Engineering team. They are then proctored by faculty who are physically present during fluoroscopy training.

Dr. Hughes detailed the comprehensive learning module and the practical session the program students go through before applying for the permit.

Dr. Hughes presented the wording of Senate Bill (SB) 798. He explained with the new regulations, the resident is not able to obtain the Supervisor and Operator permit with the PTL. However, based on an exception in the Health and Safety Code, an individual who is in a medical residency training program, which is a formal, graduate medical education that consists of on-the-job training of medical school graduates, is not required to be issued a Supervisor and Operator Permit

in order to use x-rays on human beings within the scope of their residency training program.

Dr. Hughes noted that the resident can still operate the equipment but must be under direct supervision of an instructor who has been issued a Supervisor and Operator Certificate or Permit.

Dr. Hughes posed the questions, *What is supervision? Is it in the room? Is it in the department? Is it how much proctoring has to occur before they can be independent? Can they ever be left alone with the supervisor in the department but not in the room?* Some of this is not clarified.

Dr. Hughes preferred that with a PTL, the resident could still get a permit and operate independently, having gone through the extensive training. This would be much safer than pretending that the supervisor is taking responsibility for someone else's actions. He noted that his goal in the training of residents is that they learn to be independent practitioners at an early stage.

The PTL allows residents to operate as physicians within their training program but not outside. Dr. Hughes expressed the hope that the permit could allow them to operate X-ray equipment within their program but not outside as well.

Mr. Scott referred to the policy memo that Dr. Hughes referenced. Regulations and law do not say when an individual under this exemption must be under physical direction; that is up to the medical judgment of that supervisor. Currently the supervisor of the resident is legally responsible for them, regardless of whether they are physically present, in the next room, or across the world.

Dr. Hughes described a situation that comes up at night when residents may need to do the swallow technique. Mr. Scott stated that it is up to the supervisor whether or not to be present. Initially they supervise the student, then they sign off when the student shows that they can do the procedure. There is flexibility in the policy on the supervision functions within the residency program.

Mr. Scott stated that the resident does not need a permit – existing law exempts them as long as they are in that school of medicine and being supervised in the practice of medicine. The medical board approves the school, therefore CDPH has no jurisdiction over how it functions.

Dr. Hughes mentioned that the residents moonlight at adjacent hospitals outside the residency programs. Jennifer Simoes, Medical Board of California, stated that moonlighting can be approved by the residency program. She stated that the Medical Board does not see the new legislation as changing anything: residents cannot get the supervisor's license because CDPH does not look at the PTL as a full and unrestricted license. Kerrie Webb, Medical Board of California, agreed with Ms. Simoes' statement as accurate.

Committee Member Silva commented that this also affects orthopedic residents: in their second year they get the fluoro licenses, so that in the ER they can provide the care they are supposed to. He asked if with this medical license, as long as they are in the residency program, they can go to the ER and do a reduction without having a specific fluoroscopy license. Mr. Scott confirmed.

Committee Member Cagnon commented that residents need to be able to do fluoroscopy and need to be able to come in at night. They can do this as long as there is supervision, and the state of California does not define supervision other than to say that they are wholly responsible. It is the institution that takes on the risk.

Dr. Hughes stated that it should not be the program director who is responsible, but the institution.

Committee Member Cagnon stated that the institution becomes nebulous very quickly – there is no one individual to take the fall. The model to get someone to take responsibility is to name a person.

Committee Member Puckett stated that in the context of what has been said, if you document that the resident has completed the fluoroscopy training, that is part of the program supervision.

DISCUSSION

Chairperson Taylor noted that the Medical Board was invited to the RTCC meeting so that they could expertly address the numerous questions received about their statutory requirements to be implemented January 1, 2020.

Committee Member Puckett asked for confirmation that moonlighting is acceptable under the scheme of the PTL. Does it have to be signed off by the residency program director? Ms. Webb confirmed: it is permissible under Business and Professions Code Section 2064.5(b). It must be approved in writing, maintained in the resident's file.

Committee Member Cagnon asked about doing fluoroscopy while moonlighting. Is the resident under the supervision, indirect though it may be, of the residency program director of the institution where their residency is? Ms. Webb confirmed: the program director is still responsible. Committee Member Cagnon felt it important that the institutions understand this. Ms. Webb noted that the program director probably is not the only person responsible. If there is civil litigation, everyone connected will probably be named. If there are issues with supervision, the supervisor may not be the program director but would be subject to discipline by the Medical Board.

Committee Member Cagnon encouraged people to be aware of what CMS requires in terms of supervision.

X. NOLA UPDATE

Mary Shear, PMP, CSM

Ms. Shear stated that for the last several years CDPH has been in the process of implementing online systems for certificates, licenses, permits and registration, as summarized below.

- 2014: Export Documentation Automation Project within the Food and Drug Branch
- 2017: Personnel Licensing and Renewal System for Laboratory Field Services
- 2018: Manufactured Cannabis Licensing System
- 2019: Lead-Related Construction Certification
- 2019: Licensing system for Laboratory Field Services to register and license laboratories

The New Online Licensing Application (NOLA), for the Radiologic Health Branch, is to allow physicians and physician assistants to register and renew certifications and will address seven different license or certification types.

NOLA has been in the queue for some time and will benefit from the use of some reusable assets that have been deployed in several projects prior to it.

Ms. Shear noted for quite some time the program has been working on data migration and validation from 30+ years of data collected within the legacy systems. The program is in the process of reviewing and cleansing the data and analysis while fitting that into their daily routines.

Ms. Shear listed lessons learned from the previous projects and noted that the project approach is based on lessons learned from other project implementations, as follows.

1. Phase I: Internal go-live. Allows time for the internal program people to train their staff, learn how the new system functions, insure that data was migrated correctly, identify an additional required system functionality, and do any enhancements.
2. Phase II: External go-live. Allows time for external outreach; allows time to modify any functionality; allows time to finalize external functionality and prepare for it to go live and follow up on any migration issues.

For Phase I, the project staff will accept paper applications, then conduct their review and enter information into the system. They will ask applicants to submit email addresses along with the applications. Certificates and licenses will be sent out in a PDF via email to the applicants.

Phase II adds on to Phase I. Instead of submitting a paper application, people will be able to apply online by entering the required information and attaching the required documents. They can pay by e-check, VISA, or MasterCard. The program conducts their internal review. Once approved, a PDF certificate will be sent to the applicant.

Regarding the NOLA implementation schedule, the data is the largest component of this deployment. Data from the legacy system needs to be analyzed and corrected. Data such as dates, addresses, email addresses, and dates of birth need to be aligned with system requirements. Anomaly reports will check for data accuracy. That is happening currently.

In the current fiscal year the program will implement Phase I. After a three to six month stabilization period for possible fixes and enhancements, they will implement Phase II; this will be in the next fiscal year. Customers will be trained. After the external go-live will be another system stabilization period.

DISCUSSION

Committee Member Cagnon noted that he has heard for a long time the complaint from physicians that state websites are unhelpful in trying to figure out the kind of permit you need. Some useful guidelines – a roadmap – would be in order. He suggested a guidance document.

Ms. Kroger noted that two years ago at this meeting they talked about the data reconciliation process. Is this a different product than the one that was described then, or has it taken two years to reconcile the data? If the latter is the case, is this timeline realistic for release of this anxiously-awaited product? Ms. Shear stated that as of today, they are still reconciling data and looking at anomalies. This project schedule is the best one we know.

Ms. Kroger stated that most of the people in the audience are not going to be impacted by the permits and certificates listed here – these are really the physician permits. What is Phase III that allows for online applications for X-ray technologists? Their application process is lengthy. Ms. Shear said that she is not program staff and couldn't answer that question but from an Information Technology Services Division perspective, she felt that once you have a step forward it is easier to take two steps forward.

Gonzalo Perez, Radiologic Health Branch and product owner for this project, stated that the processing of physician certificates is much more intertwined;

there are many different options you must look at through a certification process. It is necessary to program many different pathways through the application.

He continued that the project started about a year and a half ago. Staff spent several hundred hours with IT people mapping the exact logic of the processing of an application and all the possible pathways. Staff then began working with a contractor to develop the program. Much testing has been done and is still to be done.

We are doing a deep dive on the data. There are still many inaccuracies in it; over a 30-year period, many tens of thousands of doctors' data are in there. We are concurrently completing a gap analysis on what is left to achieve for Phase I. We hope that in the next few months we will know what programming is left to do. Our goal is to finish Phase I for the end of this fiscal year.

XI. PUBLIC COMMENT

Committee Member Silva clarified a comment he had made earlier about whether the use of lead is required for every examination. He was not suggesting that physicians were not supposed to wear lead. His concern was regarding a situation in which a physician performing surgery or a procedure is not covering the child but is covering himself: the perception is possible that the physician is not providing the patient with the same care that he is providing for himself. We need to be careful about this perception, especially when we are taking care of kids.

Ms. Clausen asked Dr. Hughes when a radiology resident takes the Supervisor and Operator exam in the current model. Why is it just for them when other non-radiology specialties also utilize fluoroscopy? Do others do this type of training prior to completion of their programs? Dr. Hughes answered that currently they can obtain their permit as soon as they have their Medical Board of California license, which is at the end of their internship year. After passing the exam, they get the permit and can work independently. The same could apply to orthopedics or other specialties.

Ms. Clausen asked about the non-radiology specialties: do they take the exam prior to completion of the residency program? Committee Member Silva confirmed that they also take it as soon as they get their California medical license, which is usually obtained at the end of the first year of residency. Ms. Clausen asked if they have training similar to that of radiologist residents.

Committee Member Silva confirmed: to be able to obtain the fluoroscopy license they have to be trained. Dr. Hughes stated that they have to take the exam. Committee Member Silva explained that they have to answer the same questions and have exactly the same test. They study everything related to radiation and safety to be able to obtain that license.

Gabriel Feinberg, second semester student, expressed concern about technologists having to wait for three months to work after completing their program; nurses and doctors do not have to wait. He expressed dismay that the committee had not made a motion on the interim permit.

William Morgan, the new program director at City College, introduced himself. He welcomed the students in the audience.

Michael Moore, Associate Health Physicist, stated that he agreed with the practice of continuous fluoro shielding. For general radiology he agreed with Ms. Martin. He noted that for chest X-rays or upright KUB, some people use rolling gonadal shielding; sometimes right after the first exposure patients will step back and trip on it. This is another safety hazard with gonadal shielding.

Committee Member Cagnon brought up possible agenda items for the future. He implored the RHB and the RTCC to consider the entire issue of supervision. Facilities are receiving citations for having the technologist perceived as getting direction from the nurse practitioner. I would ask the RTCC to work with the RHB to think about how this is going to work in the future as we have more and more of these indirectly-guided procedures. Also, regarding registration of machines: our bills are notoriously inaccurate from 15-20 years ago. We try to correct the inventories, spending days with the inspectors, and two years later we have the same old bill. This matter is about money to the institution. Last, he requested a clear definition of “facility.” It is a moving target. This matters to big organizations with the merging of medicine currently taking place.

Mr. Swanson referred to the presentation on limited permit technicians. He asked why hand and wrist falls under the radiography permit for intraoral cavity and skull. Mr. Scott replied that the dental laboratory permit category allows for hand and wrist for bone age purposes, which is necessary to determine for periodontal. Currently, if a dentist has a cone beam CT unit they can generally do everything they need there in the office. Mr. Scott did not know if the dental laboratory people are still doing hand and wrist for bone age purposes.

XII. CLOSING COMMENTS

Chairperson Taylor noted that the next RTCC meeting would be held in Southern California on May 6, 2020. She thanked those who spoke and all those who attended the meeting.

She stated that the California Department of Public Health will continue to partner with the regulated community and encouraged that community to reach out and discuss any concerns they have.

Chairperson Taylor adjourned the meeting at 2:53 p.m.