

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

**October 23, 2013**

California Department of Public Health  
1500 Capitol Avenue, 1<sup>st</sup> Floor  
East End Complex  
Building 172 Auditorium  
Sacramento, CA 95814

Frieda Y. Taylor, M.S., Chairperson

**COMMITTEE MEMBERS PRESENT**

Dale R. Butler, M.D.	Todd D. Moldawer, M.D.
Christopher H. Cagnon, Ph.D., DABR	Linda L. Ortega, MS, CRT, ARRT(R)(CV)
Diane R. Garcia, MS, CRT, ARRT (R)(CT)	Michael L. Puckett, M.D., FACR
John L. Go, M.D.	Bonna Rogers-Neufeld, M.D., FACR
Johnson B. Lightfoote, M.D., FACR	Cliff Tao, DC

**COMMITTEE MEMBER ABSENT**

Neil Mansdorf, DPM

**STAFF**

Corine Amato, Health Program Specialist	Lisa Russell, Supervising Health Physicist
Brandy Pena, Health Program Specialist	Phillip Scott, Senior Health Physicist

**ALSO PRESENT**

Ms. Elizabeth Barrow, Grossmont College  
Mr. Michael Bojorquez, Mercy Hospital of Folsom  
Ms. Lorenza Clausen, California Society of Radiologic Technologists  
Ms. Karen Lang, Merced College of Radiography  
Mr. Bob McDermott  
Mr. Ed Pezanoski  
Ms. Anita Slechta, California State University, Northridge  
Dr. Thomas Smith, U.C. Davis  
Mr. Greg Weaver, CFI Medical

## **MEETING SUMMARY**

### **I. WELCOME / OPENING REMARKS**

Chairperson Taylor called the meeting to order at 9:00 a.m.

Chairperson Taylor welcomed all meeting attendees and introduced the RTCC members and California Department of Public Health-Radiologic Health Branch (CDPH-RHB) staff. She then explained the meeting's timing process as well as the procedure to follow in the event of an evacuation drill.

### **II. APPROVAL OF APRIL 17, 2013 RTCC MEETING MINUTES**

The committee members approved the April 17, 2013 RTCC meeting minutes as written.

Motion: Committee Member Moldawer

Second: Committee Member Lightfoote

Motion passed: Vote 10 Yes, 0 No, 0 Abstain

Chairperson Taylor stated that the approved minutes would be visible on the CDPH-RHB website no later than 30 days from the meeting's date. She then introduced the first two speakers, Health Program Specialist Amato and Health Program Specialist Pena.

### **III. 2013 LEGISLATIVE UPDATE**

**Corine Amato**

**Health Program Specialist**

**Strategic Planning and Quality Assurance Section**

**Regulations Unit**

Four bills related to radiologic technology:

1. Assembly Bill (AB) 383 – signed into law on August 12, AB 383 consisted of 414 pages of non-substantial changes. All changes were made to Health and Safety Code 106985.

2. Senate Resolution (SR) 19 – adopted by the State Senate on September 6, SR 19 designated the week of November 3 through November 9, 2013 as California Radiologic Technology Week.
3. AB 213 – held under submission (reduced chances for the bill to become law in the current year). AB 213 had specific requirements for the CDPH to accept military education training and practical experience completed by applicants towards the qualifications for certification. Also, schools would have been required to expedite the approval of military applicants and to provide class credit to those applicants.
4. Senate Bill (SB) 176 – held under submission, SB 176 proposed to do several things regarding the administration procedures surrounding regulations, including: amend Government Code sections 11344.1 and 11346, publish the California Regulatory Notice Register, and allow electronic submissions of notices for publication.

## **DISCUSSION**

COMMITTEE MEMBER GARCIA: Is there a chance that AB 213 will be looked at again next year?

HEALTH PROGRAM SPECIALIST AMATO: Yes, it is a possibility. They could also gut and amend the bill and just start with a fresh topic, but there is always a chance that they can continue with this topic.

COMMITTEE MEMBER GARCIA: So, at this time, the schools do not have to worry about this particular provision?

HEALTH PROGRAM SPECIALIST AMATO: Correct.

## **IV. REGULATORY UPDATE**

**Brandy Pena**

**Health Program Specialist**

**Strategic Planning and Quality Assurance Section**

**Regulations Unit**

Adopted regulation done by Assembly Bill (AB) 356 was DPH-10-006. The other adopted regulation was the RT Act (DPH-10-014).

## 1. DPH-10-006

- Initial comment period was from November 30, 2012 through January 14, 2013.
- 9 commenters submitted comments.
- The regulation package was submitted to the Office of Administrative Law (OAL) on March 14, 2013 with the review deadline of April 26, 2013.
- The OAL approved the package on August 12, 2013.
- The regulation took effect on October 1, 2013. Licensed Physician Assistants (PAs) may now use fluoroscopy only if they hold a PA fluoro permit or a radiologic technology fluoro permit. Additionally, a PA may use fluoroscopy only if:
  - The PA's supervising physician determines the PA can competently perform;
  - Identified on the PA's Delegation of Services Agreement;
  - The PA's supervising physician holds a fluoro permit or radiology certificate; and
  - Keeps certain documents on file at each practice site.

## 2. AB 356 (Statutes of 2009, Chapter 434) – RT Act

- Revised the definition of "licentiate of the healing arts" to include PAs for the purposes of issuing a fluoroscopy permit to PAs;
- Mandated the California Department of Public Health (CDPH) to issue to licensed PAs a fluoroscopy permit if the PA meets the CDPH's recognized coursework;
- Authorized the CDPH to charge fees; and
- Specific other conditions.

## 3. Coursework

- 40 hours didactic and 40 hours supervised clinical from a Diagnostic RT school or RT fluoroscopy school.
- Pass written examination.
- May not:
  - Act as a Certified Supervisor and Operator;
  - Perform mammography;
  - Perform any radiologic procedures, except as specified above; and
  - Perform radiography.

#### 4. RT Act (DPH-10-014)

- Initial public comment period was from November 16, 2012 through January 3, 2013.
- Received comments from 32 individuals.
- Public Hearing requested and held on January 3, 2013.
  - 4 individuals commented at the public hearing.
- First 15-day public comment period was from March 13, 2013 through April 4, 2013.
- Second 15-day public comment period was from May 3, 2013 through May 24, 2013.
- The CDPH filed a complete rulemaking file to the OAL on August 30, 2013.
  - The OAL had 30 days to review the package.
- If approved, the OAL files the regulations with the Secretary of State.
- The CDPH requested an effective date of October 1, 2013; however, the OAL does make the final decision.

## **DISCUSSION**

COMMITTEE MEMBER BUTLER: What are the radiologic procedures that a PA may do?

SENIOR HEALTH PHYSICIST SCOTT:

- The PA may only perform those procedures that the PA's supervising physician determines the PA can competently perform. They have to identify them on the Delegation of Services Agreement (DSA). So, if a PA is performing the procedure under this new regulation, and it is not listed on his/her DSA document, then that is a violation of this regulation.
- The DSA, according to the Physician Assistant Practice Act, is a legal necessary document to identify what the PA's authority is or what authorized activities that person can perform for the supervising physician. It has to be signed by both the supervising physician and the PA.

COMMITTEE MEMBER GARCIA: Where is the DSA kept? Is it kept at the hospital?

SENIOR HEALTH PHYSICIST SCOTT: Under this regulation, they will have to keep the DSA available at each practice site where the PA practices.

COMMITTEE MEMBER GARCIA: If an RT working at the hospital believes the PA is working out of his/her scope, can the RT ask for a copy of the PA's DSA?

SENIOR HEALTH PHYSICIST SCOTT:

- The DSA must be available, both by law and by regulation. The law actually says that they shall keep their documentation at each practice site. So it would be both a violation of regulation and law.
- For those who are unclear on the relationship between a law and a regulation, the law trumps a regulation. A regulation cannot exceed the authority granted by the law itself. A regulation will make the law specific, implement it, or interpret it. And it has to fall within the scope of that law itself.

COMMITTEE MEMBER GARCIA: Does the DSA need to be displayed?

SENIOR HEALTH PHYSICIST SCOTT: It is not required. It must be available upon request by the Department.

COMMITTEE MEMBER GARCIA: So the radiology department has the DSA or is it the administrator of the hospital?

SENIOR HEALTH PHYSICIST SCOTT: The facility. If the radiology department wants a copy, then they need to work with their administrative staff.

COMMITTEE MEMBER CAGNON: By list of procedures, are we talking about procedures mapping to say CPT codes or is it not specified?

SENIOR HEALTH PHYSICIST SCOTT: It is not specified. It is whatever the physician is saying that this person can competently perform, and they identify that.

COMMITTEE MEMBER CAGNON: So there is no description of what constitutes procedure?

SENIOR HEALTH PHYSICIST SCOTT: No, there is no specific description.

COMMITTEE MEMBER CAGNON: Back to Diane's question, if an institution has a list of procedures, is that going to vary? Would the legislation allow it to vary from physician to physician?

SENIOR HEALTH PHYSICIST SCOTT: It comes down to what the physician allows.

COMMITTEE MEMBER CAGNON: So you could have individual physicians with individual PAs having different lists?

SENIOR HEALTH PHYSICIST SCOTT: Yes.

COMMITTEE MEMBER ORTEGA: Now that this regulation is approved, presently there are no PAs allowed to do fluoroscopy based on the fact that no one has attended an approved education program. Is that correct?

SENIOR HEALTH PHYSICIST SCOTT: We have not issued any PA fluoroscopy permits as there have not been any approved providers yet.

COMMITTEE MEMBER ORTEGA: I just wanted to make clear, because I have heard some comments and some phone calls that "I am a PA. I can start doing it as of October." I said you have not had the education.

SENIOR HEALTH PHYSICIST SCOTT: They have to comply with that.

Chairperson Taylor introduced the next speaker, Senior Health Physicist Scott.

## **V. SCOPE OF PRACTICE – RADIOLOGIC TECHNOLOGIST**

**Phillip L. Scott, MA, CRT**

**Senior Health Physicist**

**Strategic Planning and Quality Assurance Section**

**Regulations Unit**

### **1. Radiologic Technology History**

- 1959 – AB 2768: Would require licensure of medical X-ray technicians. Revised to initiate an interim study.
- 1961 – AB 1317: Addressed AB 2768 interim study. Died in committee.
- 1963 – AB 827: Would require registration of X-ray machine operators. Died in committee.
- 1963 – SB 1480: Would establish certification and regulation of X-ray technicians. Died.

- In 1965, 1967, and 1968, all of these things would have established some type of qualifications for individuals who are using X-ray on people:
  - 1965 – SB 848 & 849: Would establish certification and regulation of X-ray technicians and licentiates. Died.
  - 1967 – SB 751 & AB 2292: Would establish certification and regulation of X-ray technicians.
  - 1968 – AB 633 & SB 935: Would establish certification and regulation of X-ray technicians. Died.
- 1969 – SB 1056: Would establish certification and regulation of medical X-ray users.
  - Enacted as the Radiologic Technology Act.
  - Effective, for non-licentiates, July 1, 1971; for licentiates, January 1, 1972.

## 2. Radiologic Technology Act

- Health and Safety Code, Section 114840 – “The Legislature finds and declares that the public health interest requires that the people of this state be protected from excessive and improper exposure to ionizing radiation. It is the purpose of this chapter to establish standards of education, training, and experience for persons who use X-rays on human beings and to prescribe means for assuring that these standards are met.”

## 3. The Health and Safety Code, Section 114850(c) defines “Radiologic technology” as, “the application of X-rays on human beings for diagnostic or therapeutic purposes.”

- The Health and Safety Code, for those who do not know, is the law. We sometimes use legislation, Senate Bills, or chapter and statute numbers interchangeably, but they are all speaking to the law, what the Legislature has enacted, and has been signed by the Governor.

## 4. The Health and Safety Code, Section 114850(d) defines a “Radiologic technologist” as, “any person, other than a licentiate of the healing arts, making application of X-rays to human beings for diagnostic or therapeutic purposes pursuant to Section 114870(b).”

## 5. Health and Safety Code, Section 114870(b) – The Department shall, in part: “Provide for certification of radiologic technologists, without limitation as to procedures or areas of application, except as provided in Section

106980. Separate certificates shall be provided for diagnostic radiologic technology, for mammographic radiologic technology, and for therapeutic radiologic technology.”

- I am emphasizing those phrases, diagnostic, mammographic, and therapeutic because that is what is going to help us understand the scope of practice.

6. Health and Safety Code, Section 106980 – “Certification in radiologic technology pursuant to [Section 114870(b)]... shall not authorize any of the following:

- (a) The use of diagnostic, mammographic, or therapeutic X-ray equipment except under the supervision of a certified supervisor or operator.
- (b) The interpretation of any radiograph or a diagnosis based upon it.
- (c) The reporting of any diagnosis to a patient except as ordered by a licentiate of the healing arts.
- (d) The use of any title or designation indicating or implying the right to practice any of the healing arts.”

7. Scope of Practice

- Based on the Health and Safety Code, Section 106965, Section 106980, Section 114850(d), and Section 114870(b):
  - A certified radiologic technologist (CRT) may apply X-rays to human beings for diagnostic or therapeutic purposes as limited by Section 106980; or
  - (Combining RT Act language) – A CRT may perform diagnostic or therapeutic radiologic technology as limited by Section 106980.

Is there anything else in the law that expands on what activities or what functions a CRT can actually perform?

8. Health and Safety Code

- Section 106965 – “is acting within the scope of that certification or permit”.
- In Section 107070, it talks about:
  - Performance of professional duties
  - Performing radiologic technology functions
  - Performance of radiologic technology duties

- If you fail to perform appropriately, that particular law is the reason we can take legal action against revoking, suspending, and taking away your ability to take X-rays.
- Section 114850(g) defines “Supervision” as “responsibility for, and control of, quality, radiation safety, and technical aspects of all X-ray examinations and procedures.”
  - Also see Section 106980.

## 9. Health and Safety Code

- Section 106985 – Expansion of scope – Venipuncture.
  - Expanded the scope and gives us the authorization if we meet certain criteria to perform venipuncture in an upper extremity to inject contrast.
- Section 107115 – CT/PET OJT process.
  - Creates the on-the-job training process so that a radiologic technologist can actually perform PET procedures.
    - PET means positron emission tomography, which is a nuclear medicine study.
- Section 107155 – PET procedures.
- Section 106965(b), 114850(k) & (l) – Scope of “mammographic radiologic technology” = Mammography (procedure for creating a mammogram [X-ray image of the human breast]).

All of these things give us some information as to what the intent of the Legislature is as it relates to scope of practice.

Now we look at the regulations because the law always trumps regulations.

## 10. Regulations – December 1970

- Section 30411(a) – “Each certificate or permit shall indicate the scope of practice authorized.”
- Section 30413(a) – “Certificates shall be issued to allow the practice of diagnostic radiologic technology... to applicants...”
- Section 30440 – “Certificates shall be issued to allow the practice of therapeutic radiologic technology... to applicants...”

Current Regulation – Section 30440: For the diagnostic or therapeutic radiologic technology certificate...

### 11. Scope on Authorizing Document

- "...To perform X-ray procedures in the practice of Diagnostic Radiologic Technology and to use the title of Certified Radiologic Technologist."
- "...Therapeutic Radiologic Technology..."
- "...Mammographic Radiologic Technology..."

### 12. But that does not answer our question.

- Scope – Other Activities?
  - Draw up, inject drugs?
  - Give patients oral contrast?
  - Take patient history?
  - Mix up contrast material (e.g. barium)?
  - Place peripherally inserted central catheter (PICC) lines?
  - Start IVs?
  - Inject via PICC, Porta-cath, etc.?
  - ASRT says I can do it!
    - So if ASRT says you can do it, great. It does not mean you can.

### 13. Request that the RTCC establish a subcommittee to:

- Review applicable California laws/regulations;
- Review other state laws/regulations/practices;
- Review educational curricula;
- Review ASRT's recommendations; and
- Make recommendations to the RTCC on scope of practice for diagnostic and therapeutic Radiologic Technologists.

## DISCUSSION

COMMITTEE MEMBER CAGNON: You kept saying supervision or operator – supervisor "or" operator. It is supervisor "and" operator, right?

SENIOR HEALTH PHYSICIST SCOTT: Under the law, it is certified supervisor "or" operator.

- The authority that the Department has is that we can issue an authorizing document for use of X-ray equipment or supervision or both.
- The way it has been implemented into regulation is that we issue only both.

- So, the authorizing licentiate document gives the individual the authority to use X-ray equipment and to supervise.
- Under the regulation we have just adopted, the RT Act recommendations, we have defined the phrase “Certified supervisor and operator” for purposes of the regulation so that it clearly indicates that you get to use and supervise.

COMMITTEE MEMBER CAGNON: I am talking specifically about the Health and Safety Code, Section 106980(a) – “The use of diagnostic, mammographic, or therapeutic X-ray equipment except under the supervision of a certified supervisor or operator.”

- An operator cannot supervise.

SENIOR HEALTH PHYSICIST SCOTT: Right, that is why the regulations had to clarify how the law works. And so again, the purpose of a regulation is to clarify or interpret or make specific the law.

- So when you go into the actual regulations and see that phraseology, it actually specifies what the scope of authority is now.

COMMITTEE MEMBER CAGNON: We have had those exact discussions at my institution, and I think your proposal is a very wise one.

SENIOR HEALTH PHYSICIST SCOTT: Take a look; they are now effective. On the RT Act package that the RTCC was involved in – and all the subcommittees’ and everybody’s hard work, that regulation actually became effective.

- The OAL has approved and filed those regulations with the Secretary of State and they became effective October 11, 2013.

COMMITTEE MEMBER GARCIA: May I ask if Anita Slechta can come up and explain practice standards?

CHAIRPERSON TAYLOR: Is this relevant to the motion on the floor?

COMMITTEE MEMBER GARCIA: It is.

MS. SLECHTA: The reason why it is relevant is because on the subcommittee – I was chair of several of your subcommittees over the years – we go to the national standards that are constantly being updated by the professionals, by the groups of physicians, lawyers, and such.

- The ASRT, in one of the groups I worked on nationally, was for the practice standards. Practice standards were published about 10 years ago. They have been updated on a continual basis. Practice standards were developed by lawyers, physicians, and technologists. And they are specific to the scope of standards for the technologist.
- True, it is at the national level. I suggest that you actually take whoever it is to research that, provide that information to you, and use what the national standards that are being used currently – and have been proven in the courts – and tweak them for California.

COMMITTEE MEMBER LIGHTFOOTE: It seems that if this committee really did its job well and comprehensively, we could end up with some recommendations for new legislation to improve the definition of scope of practice; because the scope of practice, as defined in current California law and regulations, is probably obsolete and too complicated.

- If this review is done comprehensively in a national context and in a forward-thinking context – that is, what sort of scope of practice do we need five years from now, not just now – that this subcommittee could come up with some recommendations for new legislation and regulation, would you say?

SENIOR HEALTH PHYSICIST SCOTT: It could result in the need to amend legislation or adopt new legislation.

- If we propose legislation for consideration of the administration, that proposal is subject to all the reviews and approval of both the Department Director, the Secretary of our Agency, and the Governor's office.
- It is very difficult to move forward with legislation from our standpoint and may need to have the industry move forward with it.

COMMITTEE MEMBER GO: I think the subcommittee is a very good idea to actually delineate... because there are some things which appear to be ambiguous with regards to scope of practice... The list you provided earlier, things like giving barium... drawing drugs, being able to do CT/PET CT... the curriculum that, for example, the RTs actually go through... Some of the stuff seems to be beyond the scope of practice... Maybe by having this subcommittee, we can actually define exactly... no ambiguity.

COMMITTEE MEMBER GARCIA: I think you are correct; it is beyond the scope of practice, as we know it today, to put in a PICC line. I believe that what Anita

stated is the best course of action because all of this work has already been done on a national level. We do not need to reinvent the wheel.

COMMITTEE MEMBER GO: It is not a matter of redefining the wheel... What you are trying to do is define it... so there is no ambiguity... within the confines of the Legislature that is already present without having to change legislation.

COMMITTEE MEMBER GARCIA: I agree, and again I want to go back to what Anita stated, that this scope of practice has been established with the ASRT. So what we need to do is look at what the ASRT does, as opposed to doing all the research. Let us research that first and then see how that fits California... what the ASRT has already established nationally.

COMMITTEE MEMBER ROGERS-NEUFELD: Mr. Scott, what other mechanism would be effective?

- What is the most effective way to get these regulations changed?
- Is the subcommittee the most effective way or is there another mechanism?

SENIOR HEALTH PHYSICIST SCOTT: There are two pathways we could take here:

- One is that the Department just move forward with establishing and reviewing doing all of this, and going out through regular rule-making. It does not involve the industry as well as it should.
- A subcommittee, through this Committee, provides a stronger base – of what the industry sees, what they need, and how we can best accomplish that need for the protection of the people of California.

Going through a subcommittee provides us a much broader scope of what the industry really needs.

COMMITTEE MEMBER ROGERS-NEUFELD: Who would you propose would be on the subcommittee?

SENIOR HEALTH PHYSICIST SCOTT: I would think program directors, technologists, and physicians. I would also like to see someone representative of the hospital organization, because of the Affordable Care Act implementation and other laws in California.

COMMITTEE MEMBER ROGERS-NEUFELD: There is not any reason that a subcommittee could not take on as their first task reviewing what has already been done by the national organizations?

SENIOR HEALTH PHYSICIST SCOTT: Absolutely.

COMMITTEE MEMBER ROGERS-NEUFELD: So these ideas are not inconsistent?

SENIOR HEALTH PHYSICIST SCOTT: No. In fact, that is what they would need to do because you need to know what the associations are recommending, what the laws and regulations allow for, what is the practice... it is looking at everything that is relevant to the particular scope, and not limiting it, not excluding certain things.

- When we move into rule-making, every single item that is identified on a scope of practice will have to show why is it necessary, what is our authority under law to even go in that direction. We have to have that authority.
- Basically, every single thing has to be documented as to what our authority is, why it is necessary to carry out the purpose of the RT Act.

COMMITTEE MEMBER ORTEGA: I agree with Diane that we should at least look at the ASRT's guideline as a base.

- When it comes to the variances that are out there, we have so many different kinds of practices from site to site, hospital to hospital, lab to lab... The scope of your special technologists probably gets very cloudy.
- I am in agreement that we need a subcommittee. And the individuals that you spoke of who should be part of, I agree with... we need some technologists to be involved in this that are actually practicing who could probably even bring us potential more insight of things we may not be able to see at RTCC or education or at the educator level.

COMMITTEE MEMBER PUCKETT: I am speaking in favor of forming a subcommittee... however, I would like to take the opportunity to point out that the ASRT is a professional organization. There is no national license, so they are not exactly equivalent.

- I would suggest that we take that as recommendations, but certainly not the authoritative thing... I would not favor accepting their recommendations wholesale, because it is not equivalent.

COMMITTEE MEMBER CAGNON: It sounds like we are all in agreement. Back to Dr. Rogers-Neufeld's question:

- If we have a subcommittee and you are getting the manufacturers involved, the subcommittee would consist of more members than just people from this committee?

SENIOR HEALTH PHYSICIST SCOTT: I was not suggesting manufacturers; hospital administrators.

COMMITTEE MEMBER CAGNON: Administrators, certainly.

SENIOR HEALTH PHYSICIST SCOTT: Those who are administering the hospital as an organization.

COMMITTEE MEMBER CAGNON: I think that is an excellent idea. Who are we making recommendations to and how does it expedite?

SENIOR HEALTH PHYSICIST SCOTT: The subcommittee would make recommendations to this Committee, and then this Committee could evaluate and either reject or make a recommendation to the Department to adopt whatever is proposed.

COMMITTEE MEMBER CAGNON: So well within the scope.

SENIOR HEALTH PHYSICIST SCOTT: Yes, as long as it is within the scope. And then our legal staff would have to evaluate whether those items do fall within our authority, even though we would try to make sure they are initially.

COMMITTEE MEMBER CAGNON: One other obvious question I think Dr. Go suggested, if we are talking about looking at the scope, I certainly champion looking at any kind of national broader standards being consistent. Always the challenge there is as those things change, then we have to make sure we keep up... and it gets dicey and do you just adopt whatever the standard is at the moment?

- So let us say the Committee decides to do the PICC line, et cetera, then I am sure it impacts other regulations, in terms of the scope of training or a program.

SENIOR HEALTH PHYSICIST SCOTT: Yes.

COMMITTEE MEMBER LIGHTFOOTE: I think it is important that perhaps this Committee be clear on the scope of the review.

- If we go back to zero base budgeting, the only applicable law that I have heard is the RT act of 1970, and a few minor amendments since then, right?
- So that is the only limitation that this subcommittee has in terms of defining a scope, which is a fairly broad limitation, so that the scope of the review is actually potentially quite broad, right?

SENIOR HEALTH PHYSICIST SCOTT: Yes, it could be very broad, and that is why I have identified at least some of the areas.

- You have got to look at the education, as Dr. Cagnon has mentioned, the ASRT's recommendations, what do the State laws say; the RT Act, what does it say; what do our regulations currently say, and how can we move forward or modify that.
- All of that broadness would be documented through this subcommittee process and would show up in the rule-making file itself to show that this is our rationale.
- Any regulation that you propose to adopt, the State agency who is adopting it has to basically show what are they doing, and why it is the best option.
- So we have to identify alternatives... ASRT is an alternative. Some other state has an alternative. What did we consider and why did we reject it, and why is this proposal the best option?

## **MOTION**

The committee members approved the development of a subcommittee to include the points as expressed by Senior Health Physicist Scott.

Motion: Committee Member Moldawer

Second: Committee Member Butler

Motion passed: Vote 10 Yes, 0 No, 0 Abstain

CHAIRPERSON TAYLOR: Before we leave this, several years ago when about seven subcommittees were formed minimally, there was a recommendation before we left the meeting as to who would be chair of the subcommittee. And then post-establishing the chair, you can move on and develop your members.

- So is there anyone that would like to volunteer to be the subcommittee chair?

Per discussion with the committee members and Ms. Slechta, Chairperson Taylor confirmed that Committee Member Garcia would be the chair of the subcommittee and Ms. Slechta would be the co-chair.

Chairperson Taylor then asked if Committee Member Ortega would mind presenting ahead of the break to accommodate the meeting's flow.

Committee Member Ortega agreed to the request.

Chairperson Taylor also thanked all of the subcommittee chairs and members of the subcommittees who contributed to the RT Act regulations. All of their work culminated in 2013 with the approval of the regulations.

Chairperson Taylor introduced the next speaker, Committee Member Ortega.

## **VI. BONE DENSITOMETRY – BODY MASS COMPOSITION**

**Linda L. Ortega, MS, CRT, ARRT (R)(CV)**

1. There is some confusion going on with the whole body composition procedure due to the fact that we do have regulation and we do have written words on what bone densitometry is and what is acted within that scope.
  - In Dual Energy X-ray Absorptiometry (DXA), we do the whole body composition... the equipment is now being designed or has been designed to do the whole body composition, where we are looking at different tissue densities, muscle mass, soft muscle mass tissue, as well as the bone.
  - In regulation, there is a specific skeletal anatomy description for scanning a bone densitometry procedure.
  - Right now, we need some clarity, so that is why we are bringing it to the RTCC, where this whole body composition procedure fits into. We are having some people challenging the regulations on this.
2. Health and Safety Code, Section 106965
  - “(a) It shall be unlawful for any person to administer or use diagnostic or therapeutic X-ray on human beings in this state after

July 1, 1971, unless that person has been certified or granted a permit pursuant to subdivision (b) or (c) of Section 114870 or pursuant to Section 114885, is acting within the scope of that certification or permit, and is acting under the supervision of a licentiate of the healing arts.”

3. Title 17, Section 30400.95 – X-ray Bone Densitometry

- “X-ray Bone Densitometry’ means a radiologic examination of all or part of the skeleton utilizing X-rays from an X-ray source which is mechanically ganged to a detector for scanning all or part of the skeleton under computer control.”
- That is the definition we have for the procedure bone densitometry.

4. Title 17, Section 30443 – Scopes

- “The scope of each limited permit is as follows: ...
- (j) X-ray bone densitometry permit: radiography of the total skeleton or part thereof, using X-ray bone densitometry.”

Here is where we are having some conversation about it. The example would be (I happen to participate in a bone densitometry school):

- “I do not see why I have to take the bone densitometry course because I am not X-raying the skeleton. I am only doing the soft tissue. And I looked in the law and the law says if I am x-raying the skeleton, I need to get a permit.”
- I said you cannot use the equipment at all because you need to have a permit to even utilize the equipment irregardless of the procedure. So that is number one.

The second thing that is happening is that I get some input from inspectors asking me how many people, or how many of our students, or how many in the industry that I am aware of are doing this procedure.

- This is a growing procedure.
- This procedure has been around for a couple of years; but by and large, most of the people who have bone densitometry units are now doing this much faster than they had been before. In other words, it is becoming a more prominent procedure.

5. Dual Energy X-ray Absorptiometry (DXA)

- Using two different X-ray energies allows a DXA device to record attenuation profiles at two different photon energies.

- At low energy (30-50 keV) bone attenuation is greater than soft tissue attenuation, whereas at high energy (greater than 70 keV) bone attenuation is similar to soft tissue attenuation. Thus, two types of tissue are distinguished: bone and soft-tissue.

#### 6. Body Composition Procedure

- The DXA whole body composition scan is able to show a map of the body outlining skeletal bone mass, lean muscle mass and body fat mass location. The report not only gives you mapping of your body composition, but it also provides you with exact body geographical regions for bone mass and weight, lean muscle mass and weight, and fat mass and weight. It breaks down body composition by regions.

Back in the early nineties, there were a lot of studies that were being done on immune systems, a lot of HIV patients. Those studies mostly last approximately 10 years, and so they had gone their route.

We have new study groups coming out. I have graduates from UCLA, USC, Scripps College... where we now have Ph.D.s who have earned their X-ray permit for bone densitometry and they are strictly doing only whole body composition.

- They are looking at the diabetic patient.
- They are looking at the Parkinson patient.
- They are looking at different kinds of conditions on how the soft tissue evaluates into a health issue, and how to prevent that in addition to some of the bone that is also done.

This procedure will give you information to be evaluated on thick tissue, soft tissue, and skeletal tissue.

- So it is not eliminating the skeleton. The skeleton is in there during the scan.
- A lot of the physicians will only use the soft tissue information in their report or in their conversation with the patient, so it appears within the industry we do not scan the bone, but the bone has to be scanned during the process.

7. What I am doing is bringing to the RTCC a request that this body mass composition procedure, as with everything in technology, be accepted into

the typical bone densitometry category of procedures that would be within their scope.

## **DISCUSSION**

COMMITTEE MEMBER CAGNON: Just to make sure I understand, obviously an X-ray technologist can do this. You are talking about a bone densitometry guy doing just the soft tissue; expanding their scope, so to speak.

COMMITTEE MEMBER ORTEGA: Yes, those who have a permit.

COMMITTEE MEMBER CAGNON: For the bone densitometry scope.

COMMITTEE MEMBER ORTEGA: For the bone densitometry, yes.

COMMITTEE MEMBER CAGNON: What do you think the issues are in terms of risk and safety and control?

- I think that the whole bone densitometry subspecialty was a very controlled system at a very, very low dose.
- Now, a whole body, I have not looked into this. I do not know what the relative dose increase would be. Certainly, it would be higher. I still assume it is a very controlled system with limited user input. I think those would be some of the factors for discussion.

COMMITTEE MEMBER ORTEGA: Yes. It is still low dose, and I failed to bring some of the literature that shows the minor to minimal, if no increase at all, depending on the patient size.

COMMITTEE MEMBER CAGNON: How many manufacturers are offering this, do you know?

COMMITTEE MEMBER ORTEGA: There are two primary manufacturers, Hologic and General Electric.

COMMITTEE MEMBER ROGERS-NEUFELD: I hold a clinical bone densitometry certificate from ISCDN. We use this quite often. There is also an application in the pediatric population.

COMMITTEE MEMBER ORTEGA: Yes.

COMMITTEE MEMBER ROGERS-NEUFELD: I mention that because we study children that are under treatment for anorexia nervosa and other psychiatric disorders and also child abuse in cases of starvation.

- The scan for whole body is the same that you do for the whole body skeleton, so there is no additional scanning that is done.
- Standard DXA for an adult would include an AP of the spine and one hip. Occasionally, we have to do the other hip, because of hardware, and occasionally we have to do a peripheral DXA, which is usually a forearm.
- The whole body adds a small amount of radiation.
- But the analysis of the body composition, just for clarity, is a software analysis of the information that is already acquired from the whole body skeletal scan.
- And in pediatric scanning, we always have to do a whole body. That is part of the protocol. So this is not unusual. It adds no additional significant time or dose to the patient.
- And I agree with you that it should be defined and included.

COMMITTEE MEMBER CAGNON: So you are saying that the actual scan is, in terms of say the spatial coverage, essentially the same. It is just the analysis has been modified to include soft tissue?

COMMITTEE MEMBER ROGERS-NEUFELD: In the pediatric population, we always do a whole body scan. That is part of the protocol.

- In adults, we generally do not, because it is not necessary.
- But when you do a whole body scan, it adds very little radiation time and no extra cost.
- And the analysis of the scan gives you the bone density for the entire skeleton, plus the soft tissue lean mass.

COMMITTEE MEMBER CAGNON: I think my question is what is meant by a whole body scan, a whole body?

COMMITTEE MEMBER ORTEGA: Head to toe.

COMMITTEE MEMBER ROGERS-NEUFELD: It scans the whole body head to toe. You get an outline.

COMMITTEE MEMBER CAGNON: Okay. But the traditional DXA that I know of does not do that, right, the traditional DXA?

COMMITTEE MEMBER ROGERS-NEUFELD: The adult DXA.

COMMITTEE MEMBER CAGNON: Okay. So peds has been doing this?

COMMITTEE MEMBER ORTEGA: Yes. There have been some changes in some of the equipment and upgrades.

- A lot of it is obvious software, and some of the software that is out there allows the technician or technologist and/or that particular unit that has the capability of handling this particular software to do the scan and is, if you look, a complete head-to-toe including the skeleton.
- So the patient is positioned for whole body composition, the patient is scanned, and all that information is compiled on the report.

COMMITTEE MEMBER GO: I think it is the whole thing about definition again, right?

COMMITTEE MEMBER ORTEGA: Yes.

COMMITTEE MEMBER GO: It is ambiguity... in a traditional DXA scan where you actually do partial imaging like in hips, as opposed to doing the whole body, my concern would be if you are scanning the whole body, radiation dose to limbs would be higher, right, as opposed to doing a traditional DXA scan, because you are scanning through the calvarian orbits and stuff like that, so there is risk to the lenses, for example.

COMMITTEE MEMBER ORTEGA: What I am trying to bring is can we use the term skeleton or skeleton thereof to make that an inclusive part of the rest of the body.

COMMITTEE MEMBER GO: I guess the question I would have is how do the manufacturers describe body composition study, what do they call it?

COMMITTEE MEMBER ORTEGA: They call it a DXA study.

COMMITTEE MEMBER GO: But that is not correct.

COMMITTEE MEMBER ORTEGA: That is not correct. I agree with you.

- It is still dual energy... still a procedure that is different from the original thought process...

- We are talking about a certain type of procedure versus what that area or that scope can perform.

COMMITTEE MEMBER GO: Again, it is the semantics part. You know, you still call it a DXA scan, as opposed to bone densitometry study, and I think everything would be fine, right?

COMMITTEE MEMBER GARCIA: It seems to me that any radiation is not zero radiation, so there is an impact.

- A few years ago, I think it was Jennifer Yates who was the chair of the Bone Densitometry Subcommittee... you were on the subcommittee. I do not recall this particular type of study being brought up at all when that subcommittee met.

COMMITTEE MEMBER ORTEGA: It was not. And in all fairness to the subcommittee, this has kind of been on the very bottom burner for a little while. And just in the past year and a half, more than half of my students that come to take the bone densitometry program are doing these procedures exclusively.

- A procedure has been found that is very valuable in the research areas specifically, and diagnosis of certain types of individuals, including children.

COMMITTEE MEMBER GARCIA: Is this part of the educational pathway for the X-ray technician when they do bone densitometry?

COMMITTEE MEMBER ORTEGA: In our program, and as written in regulation, nowhere does it specifically say to do a whole body DXA scan. However, it says to teach them what is going on in the industry, and so we do.

- And where I am having input here and to bring to the RTCC is I feel we are a little tied in with the title bone densitometry when it is more than bone densitometry being done with a DXA unit.

COMMITTEE MEMBER GARCIA: It seems to me then that this is just, as you said, semantics. This is just a re-definition. So we do not really need to change any of the regulations or what the schools are teaching. What we need to change is just eliminate the word "skeleton" or add the word "whole body" or something more minor.

COMMITTEE MEMBER ORTEGA: Or make it whole body.

COMMITTEE MEMBER GARCIA: Right, because this may expand into something else in the future.

COMMITTEE MEMBER LIGHTFOOTE: I think we can maybe solve the problem by deleting the word “bone”, which occurs twice [in the California Code of Regulations, Title 17, Section 30443(j)], and replacing “skeleton” with “body”. And that change to the regulation would accomplish what you are here [for] today.

COMMITTEE MEMBER GO: I think if you change the wording to “DXA scan”, and as a subcategory include bone densitometry, that would cover the whole thing.

SENIOR HEALTH PHYSICIST SCOTT: The subcommittee that was just mentioned earlier made recommendations that we carried forward. In the bone densitometry supervised clinical education, prior to October 11, 2013, the procedures that had to be performed were five PA spines, five hips, and 10 extremities.

- The 10 extremities was deleted, and five for arms added, and then five other procedures. And these procedures, as an example, provide whole body, hip, spine, extremity, vertebral fracture assessment.
- So the concept is now in the regulations of whole body.
- If we changed the phraseology radiography of the body or part thereof using whatever you say it is, the consistency between X-ray bone densitometry is now lost with the definition of the scope.
- We would have to evaluate that consistency and make sure it is consistent.
- The other thing that happens is that, the phrase, “X-ray bone densitometry” is printed on every X-ray technician permit, and we would have to modify our computer systems, and there is a cost related... So we have to look at the internal issues surrounding that.

COMMITTEE MEMBER CAGNON: I was not involved with the original subcommittee, but I would suggest to all of us that we are debating about the phraseology and how to incorporate it, which makes sense.

- I would imagine, and someone can correct me if I am wrong, that the evolution of having a limited permit for DXA/bone densitometry was for a very small part of the body.
- So as this has evolved and gone to essentially a whole skeletal scan, which we obviously agree is included in the scope, and we are trying to make a distinction between a whole skeletal scan versus a whole body

scan would essentially be the same scan, I would suggest that the difference between a whole body scan and say a selective of the head or the femur would be quite large.

- From a radiation dose point of view, overall, I agree, these are all very low doses, and they are very, very powerful diagnostic tools.
- I think we should at least consider, if you were doing a pediatric patient, obviously you do them differently, as I understand, than an adult, but if you are doing a limited scan of say just the femur or the spine, looking for bone density, specifically as it was originally intended, versus a whole body scan, I imagine you would have a fairly significant dose difference.

COMMITTEE MEMBER PUCKETT: I think we are talking about two things. And I would like to keep it clear.

- Bone densitometry being an application, and DXA being a modality or technique, if you will.
- I believe the original bone densitometry was not even a dual energy, so this has already evolved a little bit.
- And correct me if I am wrong, I believe an XT can already do a whole body densitometry. So in a way, that scope is already taken care of.
- So really, as we move in we have to define DXA of the whole body, which is now not even for the indication of bone densitometry, so that is where I think we have crossed the line.
- And to rather just get into authorizing dual energy absorptiometry, then you get into the problems of even like dual energy CT. We have to be very careful not to expand into that.
- Now, since this is a fairly push-button type thing, to some degree, I mean it is fairly automated; we have already made carve-outs for mini-fluoro and for dental CT. This could fall under that kind of thing and expand that, but I think you have done us a service by pointing out a gray area that we need to clarify, but just keep some of those points in mind.

COMMITTEE MEMBER ORTEGA: Absolutely. Yes, there has definitely got to be a line that does not get crossed when looking at this particular area that, "Oh, if I can do this, why can I not do that?"

- I guess what we need is just some consistency of where the RHB is on if you do this procedure, are you okay, under your permit?
- Those who have a permit for bone densitometry, if you are doing a whole body composition, is that a scope within your permit? Because an inspector can come out and look at the law, that procedure does not say it

is within the skeleton or thereof, and not that I think they would – obviously there have been calls and questions and conversations about this, but are they working out of scope when they do that procedure, based on the way the law is written at this time?

COMMITTEE MEMBER GARCIA: I also want to reiterate what you said about the CT scanners. There is bone densitometry also being done on CT scanners. And we do not want to do whole body CT scanning, so it can be misinterpreted in that area.

- So I rescind what I said before about a simple change of terminology. Phillip is absolutely correct; it is not that simple.

COMMITTEE MEMBER ROGERS-NEUFELD: Just one point of clarification:

- The technologist is not doing a body composition scan. That is just a software computer algorithm.
- The technologist would be performing the scan from head to toe with a whole body scan.

COMMITTEE MEMBER CAGNON: By allowing full body skeletal, you have essentially allowed this. I would comment that we talk about, well, there is a line... We have researchers doing this stuff. I can easily take a CT, particularly a specialty CT, and lower the dose so much that I can do the same thing and probably get in competing with that kind of technology.

- So we have, I think, over the decades, certainly before I became a committee member, lots of history of debating about where the limited license scope ends and where we want a fully licensed technologist.
- As Phillip said earlier, the technologies are evolving and emerging so quickly, that line is going to be very difficult to hold, and I am not sure what that line exactly is.
- I agree that the point is already made that it is a very automated technology. It is a very low dose, but I think when you allow a whole skeletal, you change what I originally thought was going on with the DXA technology.

COMMITTEE MEMBER ROGERS-NEUFELD: I think the question that you are bringing up is: should we include body composition in the definition of a DXA scan? Our challenge is that people want to use this equipment to just do body composition, and not have the proper authorization.

- Well, you cannot scan the whole body without the skeleton, because it is in there.

- So they are excluded on that count, but they also would be excluded without the proper training, because it is ionizing radiation, so I do not think there is an issue as to keeping people that are unauthorized out. I think you have the laws and regulations for that.
- I think the issue is whether body composition is part of DXA, and it is.

COMMITTEE MEMBER LIGHTFOOTE: Linda, if I understand you correctly, you need to have technologists in the State of California authorized to do body composition scans.

- As long as the word “bone” appears in Regulation J, that is outside their scope of practice.
- I do not think that the RTCC has any autonomy, other than to no longer differentiate between tissue types, whether it is bone, fat, muscle, soft tissue.
- I think we need to change Regulation [Section 30443](j) to delete “bone” and replace that with “tissue” or “body” or simply delete bone altogether and make no differentiation among tissue types.

COMMITTEE MEMBER CAGNON: The only discussion I would add is that, as was just pointed out, it is essentially the same scan. It is an issue of definitions.

COMMITTEE MEMBER PUCKETT: Yes, along that line, I would like to specify that it is actually on that same equipment, because, you know, dual energy absorptiometry could be done on a CT also.

COMMITTEE MEMBER ORTEGA: True.

COMMITTEE MEMBER PUCKETT: And so I would not want them to do it on a CT.

COMMITTEE MEMBER CAGNON: Good point.

COMMITTEE MEMBER ORTEGA: So we can say on appropriate equipment or –

COMMITTEE MEMBER PUCKETT: Bone densitometry couch.

COMMITTEE MEMBER ORTEGA: We can be unit specific.

COMMITTEE MEMBER LIGHTFOOTE: I am in support of your motion, but it will work if and only if you remove bone. We have to stop differentiating between

tissue types, and emphasize that – if this is body densitometry now, this is a new application, a new technology.

COMMITTEE MEMBER ORTEGA: If we say body, a body includes bones, soft tissue, et cetera.

COMMITTEE MEMBER LIGHTFOOTE: Sure, right, or just delete bone, and by default it then becomes human.

COMMITTEE MEMBER CAGNON: If I may, I think we are talking about removing the word “bone” and trying to restrict equipment to the equipment that is used now, which I believe is all pencil beam.

COMMITTEE MEMBER ORTEGA: No.

COMMITTEE MEMBER CAGNON: Or is there fan beam technology too?

COMMITTEE MEMBER ORTEGA: Fan beam as well.

COMMITTEE MEMBER CAGNON: Yeah, I think it is all a good idea.

- I think it is going to only hold us for a year or two before the technology changes again, but I think that the motion has to entail removing the word “bone” and saying “equivalent equipment”.

## **MOTION**

The committee members approved the RTCC recommendation that the RHB include the whole body composition procedure within the existing bone densitometry category and that the title of that category change to body densitometry.

Motion: Committee Member Ortega

Second: Committee Member Moldawer

Motion passed: Vote 8 Yes, 0 No, 1 Abstain

Chairperson Taylor called for a break at 10:43 a.m.

## **VII. BREAK**

Chairperson Taylor called for order at 11:07 a.m. and reiterated the procedure to follow in the event of an evacuation drill. She then introduced the next speaker, Supervising Health Physicist Lisa Russell.

## **VIII. EXPERIENCES WITH RECENT CT AND RADIATION THERAPY LAWS: DOSE RECORDING AND REPORTING AND ERRONEOUS EXPOSURE EVENT REPORTS**

**Lisa Russell**

**Supervising Health Physicist**

**Inspection, Compliance, and Enforcement Section**

SUPERVISING HEALTH PHYSICIST RUSSELL: I am here by request of the Committee to give an update on our California experiences with the CT laws.

### 1. Overview

- History
- Law
- California Experiences
- National Perspective
- Reporting Events and Follow-up
- References

### 2. History

- 2008: Unnecessary CT exposure of a pediatric patient in Northern California.
- Started in 2008 and continued until 2009: Unnecessary CT exposure at one of the larger southern California facilities with over 200 brain perfusion studies that resulted in hair loss.
- 2010: RHB inspected all facilities in the State that perform brain perfusion studies to verify that similar incidences were not occurring.
- 2010: SB 1237 was introduced. California was the first state to pass this type of legislation.
  - It has been sort of a poster child for other states that are patterning other legislation and regulations after our experiences.
- Prior to SB 1237, California did not require:

- Reporting of events of excess radiation exposure involving machine generated radiation. That was only required of radioactive materials overexposures.
- CT dose recording (dose indices)
- Accreditation for any imaging service other than mammography
- SB 1237 added 3 new sections (115111, 115112, and 115113) to the Health and Safety Code.
- 2010: FDA issued “Full-Body CT Scans – What you need to know” and begins its Initiative to Reduce Unnecessary Radiation Exposure from Medical Imaging.
  - We were working almost simultaneously with the federal government proceeding down the same lines.
- 2011: Our event reporting was required for January through July until we could actually have that provision corrected in the legislation to delay that reporting requirement.
- 2011: States file against a provider of full-body CT scans.
- 2011: SB 38 amends SB 1237 delaying event reporting.
- 2012: AB 510 amends SB 1237.
- 2013: Final components of the law are effective.

All of those were going on, and this legislation was being crafted.

3. CT Dose Recording, Health and Safety Code, Section 115111 – Effective July 1, 2012
  - Requires recording the CT dose in both the patient record and in the interpretive report
  - Requires annual displayed dose verification to within 20% of the measured dose until July 1, 2013, unless accredited
    - Standard adult head and abdomen
    - Pediatric head
  - Defines “dose” as the computed tomography index volume (CTDI vol) and the dose length product (DLP).
    - Those are displayed numbers on the CT console. It is not a standard dose number.
  - Specific limitations of Section 115111, such as if the machine does not display the dose, and it cannot calculate the dose, you do not have to, obviously, record that dose.

- Those are our much older machines. Questions came up; if that capability was turned off on a particular machine, if it was just the software function that was turned off, did they still have to?
  - Yes, they do have to if the machine is capable of doing it. They have to comply with the law.
4. CT Accreditation, Health and Safety Code, Section 115112 – Effective July 1, 2013
- AB 510 amended this section a little bit to be more specific in what that accreditation means.
  - Requires accreditation for CT X-ray systems by an accrediting organization approved by the federal Centers for Medicare and Medicaid Services, an accrediting organization approved by the Medical Board of California, or the State Department of Public Health.
  - Who are they?
    - American College of Radiology (ACR)
    - The Joint Commission
    - Intersocietal Accreditation Commission (IAC)
  - We do have the authority in law though to determine that other groups could accredit CT. And this is the CT service that has to be accredited, not necessarily the machine. So that legislation sort of changed a little bit in the amendment process.
  - Limits accreditation to diagnostic CT and has specific exclusions for:
    - Radiation therapy treatment planning and delivery,
    - Nuclear medicine when used for calculating attenuation coefficients, and
    - Systems used solely for image guidance for interventional radiological procedures.
  - Some facilities have older machines that they use for interventional studies that they would also like to have as a backup for their regular CT machine. If it goes down, needs repair, or if they just have an extremely large volume of patients that they want to scan, they will use that other machine sometimes.
  - If that is the case, then they are not exempt. Any diagnostic imaging done on these CT machines means they fall under the requirement to be accredited.

5. Event Reporting, Health and Safety Code, Section 115113 – Effective July 1, 2012
- Conditional – a specified patient's unnecessary dose must have exceeded specified values
  - So, if a patient has a repeat study, and they do not have a physician's approval, and the single repeated study does not exceed the dose threshold, but the two studies together do exceed it, it is still not reportable. It is only the unnecessary radiation.
  - (a)(1) requires reporting when a CT examination has been repeated, unless otherwise ordered by a physician or a radiologist.
  - (a)(2) requires reporting when a CT has been performed without physician approval.
  - (a)(3) requires reporting when a CT irradiation occurs to a body part that was not intended by a physician or radiologist to be imaged.
  - Dose Values
    - Doses correspond to the radiation worker limits. They also correspond to the part 35 medical event reporting for nuclear materials for nuclear medicine studies.
    - 0.05 Sv (5 rem) effective dose
    - 0.5 Sv (50 rem) to an organ or tissue
    - 0.5 Sv (50 rem) shallow dose to the skin
  - (a)(4) requires reporting when a CT or therapeutic exposure results in unanticipated permanent functional damage to an organ or a physiological system, hair loss, or erythema, as determined by a qualified physician.
    - If the patient has received information concerning the risks and potential consequences of a procedure, and has given consent prior to the procedure being performed, then the facility has demonstrated that the adverse result identified was not an unanticipated event.
  - (a)(5) requires reporting when an embryo or fetus receives an exposure that is greater than 50 mSv (5 rem) dose equivalent from a CT scan or therapeutic treatment under the following conditions:
    - Known pregnancy
    - The patient's physician did not approve the CT exam in advance.
  - (a)(6) requires reporting when any therapeutic ionizing irradiation occurs to the wrong individual or wrong treatment site.

- Reported for any fraction. It is not if you did the entire course of treatment to the wrong person or the wrong site. It is if you do any fraction to the wrong person or wrong treatment site.
- (a)(7) requires reporting when the total dose from therapeutic ionizing radiation delivered differs from the prescribed dose by 20% or more.
  - Final dose – not fractions. So, if you are performing a series of treatments and you notice, toward the end, that you had too little dose delivered, you could actually modify that prescription, add one more fraction, and still not end up 20% too low on your dose, because your final dose would still be within your 20% limit.
  - Palliative care allowance. And palliative care is for the patient comfort. It is not to actually try to cure.
- Section 115113(b) specifies the who and when for reporting and event
  - 5 days: therapeutic event
    - To the Department (if not for palliative care)
    - To the referring physician
  - 10 days: CT event (to allow for the complicated calculations required)
    - To the Department
    - To the referring physician
  - 15 days: (you have to report CT and therapy events) to the patient
    - Must be written notification
    - Not required for palliative care

## 6. California Experiences

- 3 reported CT events:
  - 1 CT repeat w/o physician approval
    - Technologist repeated a with and without contrast study on a patient without physician approval
  - 2 CTs of the wrong patient
    - One was a referring physician error. The physician just wrote down the wrong study on the wrong patient's referral.
    - The most recent one was the patient had the same first name, same last name on one of the care wards in the hospital, was sent down to radiology, and the

CT tech did not verify that that was the correct patient. They had a second patient identifier, and they were, in their procedures, required to verify that second identifier before they did a CT, and that technologist did not do that.

- Ultimate determination – neither the repeated study nor the unnecessary study reached the reportable event threshold criteria.
  - So although we know about these, they were not actual reportable events.
- 4 reported therapeutic radiation events:
  - 2 therapeutic radiation of the wrong site
    - One was a treating therapist error. There were unclear markings. The table did not get indexed.
    - The other one was a referring physician error.
  - 2 therapeutic radiation of the wrong patient
    - They were both treating therapist errors.
    - One patient answered to the wrong name. And again, the second verification was not done.
    - On the other one, the correct patient's information was not loaded correctly in the system. A patient was due to have two fractions on the same day. And rather than change the information for the treatment plan, for the patient that was in between, they went ahead and used the same treatment plan on that patient.
  - Those were fractional doses that were delivered in error. And subsequent fractions delivered the appropriate dose to the intended treatment site. The assessment of the physicians was that there was no actual damage to the patient on any of those events.
- Q: Does a CT of the wrong patient have to be reported if the threshold values are exceeded?
  - A: Yes, because the physician intended to have the right patient imaged.
  - The way the law is worded, CT of the wrong patient is not clear, so we had to have our attorneys actually look at the intent and make a reasonable interpretation on that one.
- Q: Does the law require reporting of events that are caused by errors outside the radiology or oncology clinic?

- A: Yes. The law requires that the event be reported. It does not limit reporting to those events caused only by errors that occur during the treatment.
- So those physician office errors or the nursing ward errors are still reportable events.
- CT events did not meet the threshold criteria to require reporting.
- Radiation therapy events were split between events involving the wrong site and events involving the wrong patient.
- Percentage of errors in reported events:
  - 50% therapist error
  - 33% referring physician error
  - 17% technologist did not seek physician guidance

## 7. National Perspective

- CRCPD Medical Events Subcommittee reported that in 2012, 40 therapy events were reported. No CT events were reported.
- Event type: California
  - Wrong site: 60%
  - Wrong patient: 40%
  - Dose +/- 20%: 0%
  - Other: 0%
- Event type: CRCPD
  - Wrong site: 38%
  - Wrong patient: 22%
  - Dose +/- 20%: 15%
  - Other: 25%
- So we are sort of trending the same direction they are. Our numbers are not exactly the same, but it sort of gives us a feeling of events that are reported, how we are sort of stacking up with everybody else.
- A particularly troubling trend noted by both California and CRCPD:
  - Even with many policies in place for patient identification and treatment plan verification, patients continue to receive the wrong treatment.
- This cutting edge legislation has provided unanticipated benefits on both the state and national level.
  - California facilities have made great strides in putting in place internal review processes and safeguards in anticipation of the law and the events that inspired the law so

that there have been very few reportable events since the legislation became active.

- Professional organizations have stepped in to provide working groups and guidance, such as the American Association of Physicists in Medicine and the American College of Radiology. Some from northern and from southern California were amazing at helping people figure out how they were even going to calculate dose.
- Additional research and educational opportunities have been undertaken, such as the University of California Health System UC Dose Project and virtual seminar.
- The result is that CT doses are being reduced by significant percentages, CT and therapy protocols are being evaluated, staff and patients are more aware of risks, and there have been very few reportable events since the legislation became active.
- We anticipate there will continue to be very few reportable events.
- Just one note that I thought might be interesting to everybody:
  - Patients undergoing repeat CT scans to monitor head and neck cancers have a far greater incidence of cataracts, which develop at lower radiation thresholds than previously thought, according to a study by Taiwanese researchers in the September issue of the *American Journal of Roentgenology*.
  - Exposure to more than four scans was independently associated with an increased risk of developing cataracts.
  - Other studies noted seven scans.
  - Advances in iterative reconstruction can decrease the eye lens dose by up to 60%.
  - So when we are looking at how technology is also helping to reduce these doses, I think we are seeing some of that with the iterative dose reconstruction. We may also need to further look at restricting how much is appropriate for head and neck CT.

#### 8. Reporting Events to RHB

- What do we want submitted when a reportable event may have occurred?
  - Identity of the person making the report (name, job title, contact information, etc.)
  - Date(s) of event

- Facility information
- Equipment specifics (manufacturer and model, software version, technical settings during the event, etc.)
- Operator's name
- Referring physician's name and contact information
- Copy of the physician's order/prescription for CT or radiation therapy treatment
- Explanation of the reportable event (We want to know how it happened, why it happened.)
- Patient dose calculations (include methodology)
  - Only calculate patient exposure from CT scans that were not used for the diagnosis.
  - We do not tell everybody how to calculate that dose, but we do expect that they are using some sort of industry standard.
- Copies of any internal investigation reports (include cause and corrective action designed to prevent reoccurrence)
  - We did have one facility that was a little hesitant to provide that internal investigation. And when our lawyers talked to their lawyers, they ended up being more than happy to turn that over.
  - So we do have authority to get this information. We will keep, you know, HIPAA confidentiality and such.
- Copies of letters sent to the patient and the referring physician (because there are required timelines in the law on when those have to be sent, and we want to confirm that those are actually sent in the appropriate timeframes.)

## 9. Follow-up Investigation

- What do we want to do during the on site visit?
  - Walk through the event – Go to the location of the event and have the technologist who was involved in the event review what happened.
  - Collect copies of images and any documentation that may have been omitted earlier.
  - Understand how the corrective action is likely to prevent similar events in the future.
    - This is an area where we would like to focus more of our attention, especially considering the answer that we have been getting in a lot of the events is, “We

have a policy in place for verification of treatment plan.” “We have a policy in place for two or three types of verification of patient identity.” And yet, those events are still happening.

10. What is the violation if you have an event at your facility and we are out there and we are evaluating what you have done?

- There are no dose limits in law or regulation.
  - So your violation is not going to be for giving somebody too much radiation, because we do not define too much radiation.
- HSC 115111: Failure to record the dose or to report the dose as part of the radiological report
- HSC 115111: Failure to have a physicist evaluate the displayed dose in the absence of accreditation
- HSC 115112: Failure to obtain/maintain facility accreditation
  - We have allowed that people who are in the actual process of obtaining accreditation, working within the time limits of their accreditation body, can be considered accredited while they are in that interim period between application and final decision.
- HSC 115113: Failure to report when required
  - And that would be a failure to report to us (RHB), the referring physician, or the patient.
- CCR, Title 17, Section 30305: User must be adequately instructed in safe operating procedures and competent in safe use of the equipment
  - We will be looking for technologist and physician training when we are looking at these events.

11. Useful References

- Government and Industry
  - [CDPH.CA.GOV/RHB](http://CDPH.CA.GOV/RHB) (proposed regulations, FAQs)
  - [SENATE.CA.GOV](http://SENATE.CA.GOV) (current legislation, link to current law)
  - [AAPM.org](http://AAPM.org) (CT Protocols)
  - [CRCPD.org](http://CRCPD.org) (Medical radiation: CT information, H-38 Committee reports – and that committee is the one that is doing the event tracking)
  - [FDA.gov](http://FDA.gov) (Radiation Emitting Products – Radiation Safety)
- Accreditation Organizations

- ACR.org (Appropriateness Criteria, Practice Guidelines, CT Dose Index Registry – if you are a CT accredited facility that has ACR accreditation, you can participate in that dose index registry and get feedback on whether your doses are within the industry norm, Forms & Procedures)
- JointCommission.org (Sentinel Event Alert, Issue 47: Radiation Risks of Diagnostic Imaging, CT Elements of Performance – They are looking possibly at expanding those elements of performance to all of their hospitals nationwide that they accredited.)
- Intersocietal.org (for if you are interested in other accreditation information)

## **DISCUSSION**

COMMITTEE MEMBER GARCIA: On that last page, “What is a violation?” At the last one, 30305, you said that the CT scanner department has to verify that the technologist and physician have proper training. Does that mean that the CT technologist must have their advanced certification in computed tomography?

SUPERVISING HEALTH PHYSICIST RUSSELL: No. They have to document training. And that can be competency training. It could be vendor training.

COMMITTEE MEMBER GARCIA: Okay. So that can be a check-off list?

SUPERVISING HEALTH PHYSICIST RUSSELL: Yes. It could be peer training. It does not have to be advanced accreditation or certification.

COMMITTEE MEMBER GARCIA: Okay. Will that ever be a part that you know of?

SUPERVISING HEALTH PHYSICIST RUSSELL: It is not anything that is currently in the process right now for us. For some accreditation organizations, I think they are considering it. And that, depending on which accreditation organization a facility goes with, they may already have part of those requirements.

COMMITTEE MEMBER GARCIA: I think I have read that for the MIPPA issues.

SUPERVISING HEALTH PHYSICIST RUSSELL: This MIPPA only applies to the outpatient providers that are billing for the technical components. For the facility accreditation, the California law requires all of the CT's facilities to be accredited.

- So there are some slight differences, but some of those requirements may overlap and some facilities may find that they have additional requirements.

COMMITTEE MEMBER PUCKETT: Just a point of clarification. On slide 19, your questions and answers there. Does a CT of the wrong patient have to be reported if the threshold values are exceeded?

- I am actually curious about the question if the threshold values are not exceeded.

SUPERVISING HEALTH PHYSICIST RUSSELL: If the threshold values for CT are not exceeded, it is not a reportable event.

COMMITTEE MEMBER PUCKETT: Even if it is the wrong patient?

SUPERVISING HEALTH PHYSICIST RUSSELL: Correct.

COMMITTEE MEMBER PUCKETT: Very good. Thank you.

COMMITTEE MEMBER CAGNON: You can still be sued.

SUPERVISING HEALTH PHYSICIST RUSSELL: Yes.

COMMITTEE MEMBER CAGNON: I had a question about accreditation in terms of the CT service, but not the individual machine.

- I think in your document it says the system, because, as you know, there are a couple of systems, which probably, depending on your accrediting body, will not pass muster, but they are kind of unique specialty situations. I am sure you are aware.
- And this is a challenge, because there are a couple of systems that if you go for, say, ACR accreditation, which is the most common, they will not pass ACR image quality standards. So does that mean that the whole institution is at risk for these?

SUPERVISING HEALTH PHYSICIST RUSSELL: 510 actually amended Section 115112 quite a bit. And it says, "Except as provided in subdivision (b) commencing July 1, 2013, CT X-ray systems shall be accredited by an

accrediting organization that is approved by the federal Centers for Medicare and Medicaid Services, an accrediting agency approved by the Medical Board of California, or the State Department of Public Health.”

- “A facility that is subject to accreditation may elect to have the CT X-ray system accredited, pursuant to a single accreditation survey that includes the CT service by the accrediting organization.”
- So they are almost using them interchangeably in here.

COMMITTEE MEMBER CAGNON: Service and system?

SUPERVISING HEALTH PHYSICIST RUSSELL: Yes, if you have a single accreditation of the service and the facility.

COMMITTEE MEMBER CAGNON: How is that enforcement created?

- Say you have seven systems at a site, and you are going for ACR accreditation, and six of them are accredited, but the seventh is again a specialty system, and maybe you have a note that says, we have looked at these different things, but this particular standard would not comply with ACR accreditation. How would the Department feel about that?
- Are you still complying with the law in terms of accreditation?
- It depends. If that is in a hospital that also has Joint Commission accreditation, then you could be considered by Joint Commission to have that CT accredited. If it is an outpatient facility and ACR is your accreditation provider and that system is not accredited, then no.
- So that brings up the point of Joint Commission. Let us say the hospital is accredited by the Joint Commission (general accreditation across the board). That counts?

SUPERVISING HEALTH PHYSICIST RUSSELL: Yes, that counts. And that was one of the things specifically added in right at the last minute on the 510 amendments.

COMMITTEE MEMBER CAGNON: AB 510, right?

SUPERVISING HEALTH PHYSICIST RUSSELL: Yes.

COMMITTEE MEMBER GARCIA: On page 24, you were talking about reconstructing images to decrease the dose to the eye. Is there any mention about shielding or bismuth eye shields or any type of shielding on the CT scanner that is required?

SUPERVISING HEALTH PHYSICIST RUSSELL: We do not require any.

COMMITTEE MEMBER CAGNON: The physics community has debated this subject a lot. There are some holdouts, but bismuth shielding is generally not recommended. I mean you just have to increase the dose to compensate for it. And if you just used current technology to reduce the dose to current modulation, et cetera, you would not need it.

COMMITTEE MEMBER GARCIA: How about other types of shielding?

COMMITTEE MEMBER CAGNON: The mantra we use, and I profess this, is to say shielding is largely a PR exercise. If you cannot shield the part you are trying to see, and most of – say in CT 95% of the radiation scatter is internal.

- So then you could do shielding, but what are you shielding from? Radiation coming through the patient, hitting the gantry coming back into the patient? Then you have sterile field issues and things like that.
- What I have experienced, I do not know how widespread this is, is that you see people try to use shielding and they have to repeat the exam because they have blocked something. So I would be very cautious with the use of shielding.

COMMITTEE MEMBER GARCIA: Okay. I work in San Francisco, and I work for a hospital in San Francisco that is very prominent, and we are debating this issue, whether or not they should purchase shielding.

- So are you saying that it is unnecessary to purchase shielding?

COMMITTEE MEMBER CAGNON: I think the question is: what you are shielding? What is the application and how is it being used?

COMMITTEE MEMBER GARCIA: Well, it is various applications. It depends upon the exam. Say someone was having a head CT scan. Would you shield below the shoulders?

COMMITTEE MEMBER CAGNON: Only if you want to make the patient feel good. It serves no other purpose, in my opinion.

COMMITTEE MEMBER GARCIA: Okay. That is very good. Thank you.

Chairperson Taylor thanked Supervising Health Physicist Russell for her presentation. She also announced that the next agenda item would be moved up to before the scheduled lunch to efficiently utilize the meeting's time.

Chairperson Taylor introduced the next speaker, Mr. McDermott.

**IX. FLUOROSCOPY PERMITS FOR CRTS – A HISTORICAL PERSPECTIVE**  
**Robert L. McDermott, MS, DABR, CRT, CNMT**

1. The Past

- Concern was expressed by RTCC members about the practice of fluoroscopy in California.
  - Survey
  - Perceived training/experience deficiencies
  - Subject matter content proposed by RHB
  - Regulations proposed by RHB
- RHB was very different from its current makeup.

2. RTCC Recommendation

- “Beef up” RT Program educational content to address fluoroscopy in greater depth.
  - School Directors explained issues involved with changing curriculum content.
  - Process would take approximately two years.
- Provide a process to allow the development of requisite training courses.
- Issue “temporary” permits for existing CRTs who successfully passed an RHB-developed test.
- Establish a “sunset provision” for these temporary permits. RT certificates issued after the “sunset” date would represent explicit inclusion of mandated educational content.
  - These temporary permits would disappear once the school directors got their curriculum in place.

3. RHB Action

- CCR, Title 17, Section 30450 – Permit Requirement
  - Required CRTs to possess a Permit to perform certain fluoroscopy-related tasks
  - NO “sunset” clause

- CCR, Title 17, Section 30423 – Radiologic Technologist Permit Schools
  - 40 hours of classroom instruction
  - 15 hours of laboratory experiments with phantoms

#### 4. What is wrong?

- California Health and Safety Code
  - Section 114870(b)(1) requires the Department to provide for certification of radiologic technologists, without limitation as to procedures or areas of application, except as provided in Section 106980. Separate certificates shall be provided for diagnostic radiologic technology, for mammographic radiologic technology, and for therapeutic radiologic technology.
    - Does requiring a technologist in this state to have a permit to do fluoro violate the Health and Safety Code?
      - I think that needs to be addressed by the Committee and RHB.
  - Section 106980 prohibits CRTs from:
    - The use of diagnostic, mammographic, or therapeutic X-ray equipment except under the supervision of a certified supervisor or operator.
    - The interpretation of any radiograph or a diagnosis based upon it.
    - The reporting of any diagnosis to a patient except as ordered by a licentiate of the healing arts.
    - The use of any title or designation indicating or implying the right to practice any of the healing arts.

#### 5. The Solution for CRTs

- Adhere to Health and Safety Code, Section 114870(b)(1), abolish CCR, Title 17, Section 30450, and exclude the wording “radiologic technologist” from Sections 30451, 30452, and 30423.
- Acknowledge, in regulation, the Radiography Program Curriculum promulgated by the ASRT and approved by JRCERT.
  - Within the ASRT curriculum, radiography includes fluoroscopy

#### 6. The Solution for Others

- Adhere to Health and Safety Code, Section 114870(c)(1)(A):
  - “Provide, as may be deemed appropriate, for granting limited permits to persons to conduct radiologic technology limited to the performance of certain procedures or the application of X-rays to specific areas of the human body, except for mammography...”
- This would be supported by rewriting CCR, Title 17, Sections 30451, 30452, and 30423 as previously suggested.

## 7. Final Thoughts

- I believe that the RTCC needs to:
  - Address the mistakes of the past relating to CRTs and move the inconsistency between regulation and law;
  - Recommend to the RHB that they incorporate a Scope of Practice for CRTs into regulation; and
  - Demonstrate clarity and vision in establishing a process for the delineation of privileges to be granted to other allied health personnel in the use of radiation-producing equipment.

## DISCUSSION

COMMITTEE MEMBER CAGNON: Just so I understand, because I have not been around for all that history, the specific issue you have is that CRT is required to have a separate fluoro permit?

MR. MCDERMOTT: Yes, because the intent of the Committee originally was that that could be sunsetted out... and the Branch, at the time, had the requirement that all CRTs had to be trained if they were going to use fluoro. And I disagreed with that. I said just train them all, whether they use it or not.

- Then when they do their renewals, the two years probably would have passed, and everybody would be up to speed. The certificate itself would include fluoro. All your new graduates would be up to speed, and it is a done deal.
- If you look at what a lot of the other states have done, that is exactly what it is. For the states that certify technologists, they follow, for the most part, ASRT. California is the only state that has a separate fluoro permit.
- I spent two days reading some other states’ regulations and enabling law. Most times, fluoro was either explicitly included or the law was mute, and they left it to the physician to determine what the technology is.

COMMITTEE MEMBER CAGNON: So this is not an issue of training. You agree the curricula must cover fluoroscopy, et cetera?

MR. MCDERMOTT: Yes. I am not asking that the curriculum change. It has already been incorporated. I also have adjunct status with Cypress College, and that is part of what I teach, so I know it is being covered.

COMMITTEE MEMBER CAGNON: So what do you think – other than the fact that maybe no one has just gotten around to it, what is the argument against?

MR. MCDERMOTT: First of all, if you think about the process now, these are folks that have close to 2,000 hours of clinical and didactic training. I have worked with these students. A lot of them work full time. They go to school full time. They want to work. They have to take their CRT. They have to wait for a result. They get a result. They cannot work.

- Now they have to apply a new fee, a new test, wait for an extended period of time. And frankly, as a former CRT, I consider that to be very unfair.

COMMITTEE MEMBER CAGNON: I agree with all that.

- Is there an argument for keeping it a separate fluoroscopy for someone who is already an RT?

MR. MCDERMOTT: An argument to keep it?

COMMITTEE MEMBER CAGNON: Yes. What is the argument against your argument?

MR. MCDERMOTT: I do not know. I would leave that to either members of the Committee or the Branch. But I do not believe there is one. I think Health and Safety is very clear. I think requiring a permit for a CRT (once they have achieved their CRT) is a violation of law. The permit requirement is regulation.

COMMITTEE MEMBER CAGNON: I tend to agree. I was just curious as to why it has persisted.

MR. MCDERMOTT: I think it occurred and nobody wants to change it. I think now is an excellent time, because I understand the Branch is rewriting almost the entirety of the radiation control part of Title 17. I believe that is an ongoing process.

- We have seen the first part of it with the changes for the curriculum. So as that process goes on, if we are going to do this and correct it, I think now is the time to do it, before it goes too far and then it becomes basically etched in stone, and then you are just stuck with it.

COMMITTEE MEMBER LIGHTFOOTE: Essentially all the schools in California have fluoroscopy as an integral part of the CRT education?

MR. MCDERMOTT: If they are accredited by JRCERT, yes.

COMMITTEE MEMBER LIGHTFOOTE: Right. And so therefore, it becomes unnecessary to have a separate permit for CRTs to do fluoroscopy.

MR. MCDERMOTT: I believe so, yes. And it was the original intent of the Committee that that would sunset out.

COMMITTEE MEMBER LIGHTFOOTE: And the only reason to have a permit would be to permit non-CRTs to do fluoroscopy? That would be the only residual purpose of having a state permit?

MR. MCDERMOTT: No. The Department can also establish alternative groups to have that privilege outside of being a CRT. So you would still have to have a permit for those folks.

- If PAs had come through the regulatory process, rather than the legislative process, they would have fallen into that group.
- It would have been this Committee to work with the Branch to come up with regulations allowing PAs to do it.
- But they would have to then take that test and possess that permit. Now, in the law, they do have to possess that permit and it is appropriate.

COMMITTEE MEMBER LIGHTFOOTE: And the permit requirement would remain for physicians, for non-radiologist physicians?

MR. MCDERMOTT: Correct.

COMMITTEE MEMBER ROGERS-NEUFELD: I think maybe it persists because it is revenue production.

- What is the mechanism if a radiology technologist comes from another state with this, and comes into our state to work? What would be the

process for them getting their license here and what if they were not trained in fluoroscopy?

MR. MCDERMOTT: That would be up to the Branch. My opinion is that if they came from a state where they have a certification process, and that includes ASRT approved curriculum and that they are JRCERT approved, I do not believe there would be any problem with reciprocity.

- But I think those would be the details that both the Committee and the Branch would have to work out for when those technologists come into this state.

COMMITTEE MEMBER GARCIA: I want to reiterate what you just said.

- If it is a JRCERT program, those technologists have already gone through the proper curriculum.
- If they are graduates of a program that is not a JRCERT program, then they would not be allowed to do fluoroscopy in California; probably not even get a CRT in California. I am not sure.
- We have changed the standards in California. Are they in place yet, the new standards?

CHAIRPERSON TAYLOR: Yes, October. It is the RT Act package that just passed.

COMMITTEE MEMBER GARCIA: Those new standards follow JRCERT standards. So the curriculum for those programs also must follow what JRCERT does, even if it is not a JRCERT accredited program.

- But maybe those programs would need to be absolutely sure that those programs that are not JRCERT accredited would need to have the permit.
- I disagree that we should delineate the ability to do fluoroscopy for other allied health programs. The reason is I can do venipuncture, but will the nurses allow me to then push drugs without a really small amount of education?
- In a JRCERT program, the amount of fluoroscopy education that a technologist has to do and everything else is incredibly extensive. I do not agree that with an abbreviated, very short course someone should be allowed to administer radiation to the human body. The potential is extremely high that the radiation doses can cause problems.

MR. MCDERMOTT: I am not sure that I would debate that, but unfortunately Health and Safety allows that provision for the Department to provide that.

- That would be a discussion actually for the Committee and for the Branch to decide whether they do want to exercise that right under the law to provide those rights.
- I neither support nor reject that. That is kind of a Branch and a Committee decision to do. But the law does allow it specifically, so you would have to deal with that.

COMMITTEE MEMBER GARCIA: We will.

COMMITTEE MEMBER GO: This is back to this whole historical perspective thing. One thing you did not really give us was dates, and I think the dates are important.

- When did they initiate the date with regards to where a CRT actually had to have a separate fluoroscopy permit? When did that happen?
- Then you said that the curriculum changed in 1984, and it was actually changed so that the ASRT, JRCERT certified programs actually train you to do fluoroscopy. So, at that point, it would suggest to me that okay, it is in your training program. I do not see a problem if it is actually in their curriculum.
- You would not consider grandfathering in people who were trained in programs prior to the change in the curriculum who are not trained to do fluoroscopy? Those people should not be grandfathered in, for example, and get certification. You would agree with that?

MR. MCDERMOTT: I would agree with that. I think, at this point in time, that most, if not all, of the technologists who at the time chose not to have the training, those were our older technologists.

COMMITTEE MEMBER GO: But they are still people that are practicing right now, right?

MR. MCDERMOTT: There may be. I think the Branch would have perhaps some data on that, and that might have to be addressed.

COMMITTEE MEMBER MOLDAWER: It sounds like a motion is needed to suggest to the RHB that those individuals who have training that includes the fluoroscopy training not be required to have that additional fluoroscopy permit. And so I will put that motion on the floor for consideration of the RTCC.

COMMITTEE MEMBER GARCIA: I would like to change that motion ever so slightly and say technologists who have graduated from a JRCERT accredited radiology program and passed the ARRT examination are exempt.

COMMITTEE MEMBER MOLDAWER: Your amendment is accepted.

COMMITTEE MEMBER LIGHTFOOTE: I will second that.

COMMITTEE MEMBER CAGNON: More discussion on that motion. There is no non-licentiate in the State of California who can use fluoroscopy unless they are a CRT, right? PAs are considered licentiates, I think.

SENIOR HEALTH PHYSICIST SCOTT: Yes.

COMMITTEE MEMBER PUCKETT: Has JRCERT certification always included fluoroscopy or is there a period of time in which JRCERT certification did not include fluoroscopy?

- My question is to avoid a loophole.

MS. SLECHTA: The answer is no. The problem is that there are programs that are not JRCERT accredited that are also qualified to take the ARRT. There is your loophole.

COMMITTEE MEMBER ROGERS-NEUFELD: Are there any schools that are not JRCERT certified that do teach the proper amount of fluoro?

MS. SLECHTA: Yes, I know of Weber State in Utah, but you would have to evaluate it on an individual basis because on the east coast there are a lot of hospital-based programs that have not really had the time or the resources to incorporate all the digital and related things needed today.

COMMITTEE MEMBER ROGERS-NEUFELD: So by specifying JRCERT certified, we would be eliminating people who would be otherwise qualified?

MS. SLECHTA: From Weber State, yes. There would be individual cases. But California does have this resume thing for exceptions, but that might go away with this.

COMMITTEE MEMBER CAGNON: I think we are all in general agreement that they need to have fluoroscopy training. Perhaps one potential solution is that it

can be amended that they have the appropriate fluoroscopy change with maybe some details, for example, JRCERT, so you would not be excluding other avenues.

MS. SLECHTA: May I offer a suggestion? If you buy into the fact that your test means that you learned the content that you need to know, then the test is the ARRT. It tests fluoro. So if they have passed the ARRT(R), it would be, in my opinion, that they have had the content required to know fluoro, and you would not be eliminating any of the schools in the United States because most all take the ARRT.

COMMITTEE MEMBER ROGERS-NEUFELD: The content is defined by the curriculum, not by the passing of a test.

MS. SLECHTA: That is true.

COMMITTEE MEMBER ROGERS-NEUFELD: Test questions can come and go, and the amount of fluoro on a test could change. It is the actual study that we are interested in maintaining. So I support the motion, but I do not want to specify it to JRCERT certificated schools because then we will eliminate some qualified people. I would not tie it to the test.

MS. SLECHTA: Okay.

## **MOTION**

The committee members approved that the RHB remove the requirement for the fluoroscopy permit for CRTs who have completed a JRCERT certified program or equivalent and passed the ARRT.

Motion: Committee Member Moldawer

Amendment: Committee Member Lightfoote

Second: Committee Member Rogers-Neufeld

Motion passed: Vote 9 Yes, 1 No, 0 Abstain

Chairperson Taylor called for lunch at 12:21 p.m.

## **X. LUNCH**

Chairperson Taylor called for order at 1:30 p.m. and reiterated the procedure to follow in the event of an evacuation drill. She then introduced the next two speakers, Senior Health Physicist Scott and Supervising Health Physicist Russell.

## **XI. FLUOROSCOPY PERMIT REQUIREMENTS**

**Phillip L. Scott, MA, CRT**

**Senior Health Physicist**

**Strategic Planning and Quality Assurance Section**

**Regulations Unit**

**Lisa Russell**

**Supervising Health Physicist**

**Inspection, Compliance, and Enforcement Section**

SENIOR HEALTH PHYSICIST SCOTT: One point of clarification. I heard the word “equivalent” make its way into a motion. The word “equivalent” has to have clarity to it.

- We would have to determine what is “equivalent”. How is equivalency determined?
- And we would have to establish the criteria that would be used to determine whether something is equivalent and to what is it equivalent.

### 1. Fluoro Permit Requirements

- Historical Review – Senior Health Physicist Scott
  - RTCC minutes from 1970 through the present.
- Current Requirements – Supervising Health Physicist Russell

### 2. Fluoro Permit History

- 10-25-1972: Review of 3 cases of CRTs using fluoro
  - Recommended only CRTs with special competence in radiation protection and hazards and under the direct on-the-premises supervision of licentiate who also had shown special competence should use fluoro.
- 11-8-1973: Discussed definition of fluoroscopy
  - Recommended that fluoroscopy is the process of X-ray examination utilizing a transient image supplied by an image receptor for direct observation of the transient image.
- 4-24-1974: Discussed fluoroscopy

- Recommended fluoroscopy use only by certified supervisor and operator (S&O) and CRT so designated by S&O that CRT has an affidavit as to training in fluoro.

An evacuation drill commenced at 1:35 p.m.

Chairperson Taylor called for order at 2:01 p.m. and Senior Health Physicist Scott resumed the presentation.

- 9-5-1974: Limited permit X-ray technicians not allowed to use fluoro
  - Recommended establishment of a subcommittee.
- 5-28-1975: Discussed fluoro but no recommendation
- 11-4-1976: Discussed but deferred to subcommittee
- 3-31-1977: Very lengthy discussion; agreed on former concept
- 10-26-1977: Finalized concept policy
- 3-7-1978: Regulatory Change
  - Fluoroscopy would only be allowed by:
    - An S&O registered as user of fluoroscopy; or
    - A CRT who has an affidavit of special training issued by a qualified licentiate.
      - Though the regulation does not clarify what “qualified licentiate” means, the historical documents show that they mean a radiologist.
- 11-14-1979: Review of adoption and implementation.
  - Created 3-year grandfathering period.
- 12-10-1980: Update on pending adoption of grandfathering period.
- October 1981: the RHB completion of study requested by RTCC
  - Use of fluoroscopy equipment in California hospitals (used in support of 1985 regulations)
- 12-30-1981: After the Branch submitted the proposed adoption rule-making file to the Office of Administrative Law (OAL), the OAL disapproved it because it did not meet the legal standard.
  - RTCC was informed.
- 5-11-1983: Review of fluoro school curricula and establishment of fluoro permit for CRT and licentiates.
- 8-24-1985: The regulations that established the new fluoroscopy permit requirements took effect.
- 10-11-2013: Regulatory change

- Revised the definition of “fluoroscopy” to “a technique for obtaining continuously or periodically a sequence of X-ray patterns and presenting them directly or through a transfer and optional processing simultaneously and continuously as visible images”.
  - Combines both the U.S. FDA's definition of fluoroscopy and an international standard that was used.
- Permit requirement clarified in Section 30450, Subsection (a) and Subsection (b):
  - Therapeutic CRTs do not need it.
  - “Technologist” means “Radiologic Technologist”

### 3. Fluoro Permit Requirements

- January 6, 2009: Policy document
  - Framework for evaluation of compliance with the law and regulations regarding when fluoroscopy permits are required.
- Which tasks require a technologist to be in possession of a fluoroscopy permit?
  - Position the patient
  - Position the fluoroscopy equipment
  - Select exposure factors
- Which tasks require a physician to be in possession of a fluoroscopy permit?
  - Directly control the radiation exposure to the patient during fluoroscopy procedures
    - That is whether it is by stepping on the pedal or by instructing the technologist to do so.
  - Actuate or energize the fluoroscopy equipment
  - Supervise the technologist who holds the fluoroscopy permit

### 4. Fluoro Permit Requirements – Practical Examples

- Provide situational guidance
- Identifies when a fluoroscopic examination begins
- Identifies tasks that may be performed by health care workers who do not have a fluoro permit – example 4
- Examples 8 and 9 address fluoroscopy in the cardiac catheterization and interventional labs.

### 5. Fluoro Permit Requirements – Example 4

- There are times when non-CRTs or physicians (your nursing staff and medical assisting staff) can move the equipment or can move the patient:
  - They can bring the patient in.
  - Have the patient get dressed.
  - Tell the patient to get on the table.
  - Tell the patient what position he/she is going to be in.
    - Face up, face down, or wherever the doctor prefers to start to study.
  - Bring the fluoroscope from storage out into the room.
  - Plug the fluoroscope in.
  - Turn the fluoroscope on.
  - Change the dials to where the doctor has indicated he/she wants to start the study.
  - Place that equipment near or over the patient.
- All of this has to take place before the physician initiates the examination. As soon as somebody steps on the pedal, the exam has started.
  - The physician is responsible for reviewing everything (the set-up) that non-CRTs have done.

#### 6. Fluoro Permit Requirements – Example 8

- Assume a Cardiac Catheterization Lab setting where the Cardiologist possesses a fluoroscopy Supervisor & Operator Permit. A Cardio-Vascular Technologist assists the Cardiologist by positioning the patient and moving the tube at the direction of the Cardiologist, but only when the tube is not generating X-ray. Is the Cardio-Vascular Technologist performing fluoroscopy?
  - Yes. The Cardio-Vascular Technologist is performing tasks during the fluoroscopic examination, pursuant to CCR, Title 17, Section 30450 that are reserved for individuals possessing a Radiologic Technology Fluoroscopy Permit.

#### 7. Fluoro Permit Requirements – Example 9

- Hospitals often provide medical services through Cardiac Catheterization, Interventional, and other similar labs, and fluoroscopy is an integral part of these services. To minimize the staffing impact of having CRTs with fluoroscopic permits available during these procedures, can Cardio-Vascular Technologists,

nurses, or other non-radiologic staff obtain permits to perform fluoroscopy?

- No. Regulations only authorize Certified Radiologic Technologists or licentiates of the healing arts to receive certification to operate, or supervise the operation of, fluoroscopic equipment.

## 8. Fluoro Permit Enforcement

- Citations
  - Individual – cited for performing fluoroscopy without the required authorization
  - Doctor – cited for aiding and abetting this violation
  - Facility Management – cited for failing to assure that the equipment is operated only by persons adequately instructed in the safe operating procedures
- Notice of Violation – Radiation Users Declaration
  - Identifies the individual and the violation
  - Allows the individual to attest to their intention to stop the performance of illegal activity
- Notice of Violation
  - Identifies the violation and the extent of the illegal activity
  - Requires the facility administration to respond with corrective action within 30 days
  - Must be posted at the facility
- Emergency Order – Cease and Desist
  - Escalated enforcement action
  - Compliance is mandatory
  - Local law enforcement could become involved
- Settlement or Penalty
  - Settlement options may be offered if compliance is achieved and the violation is not willful
  - Recent settlement \$5,000
  - Suspension or revocation of certificates or permits
  - Financial penalties may be sought through court
  - Could be \$1,000 per offense per day

## 9. Fluoro Permit Enforcement & PAs Performing Fluoroscopy

- Must have a PA fluoro permit
- Must be supervised by a physician with a radiology certificate or a fluoro permit

- Duties must be outlined in the Delegation of Services Agreement (DSA)
- May not supervise CRTs performing fluoro
- Subject to X-ray continuing education requirements – 10 hours, 4 of which must address radiation safety for the clinical uses of fluoroscopy

## **DISCUSSION**

COMMITTEE MEMBER MOLDAWER: When it says that the PA cannot supervise a CRT with a fluoroscopy permit, if a PA is doing a procedure in the operating room, and the fluoro tech is positioning the equipment, you are saying that the PA cannot say to the tech to energize the equipment? They have to have some type of self-actuating or foot switch?

SUPERVISING HEALTH PHYSICIST RUSSELL: No, they would have to have standard operating procedures from the physician.

COMMITTEE MEMBER MOLDAWER: Standard operating procedures would say, okay, as a Physician Assistant working for me, you could reduce and stabilize a fractured tibia. That is what it is going to say, with fluoroscopy, per se.

- But in the operating room, if the PA is reducing a tibia that requires fluoroscopy, it appears to me to be inconsistent to say the PA has licentiate authority but cannot supervise the CRT.

SUPERVISING HEALTH PHYSICIST RUSSELL: They do not have licentiate authority.

COMMITTEE MEMBER GO: Where the PA is being supervised, you, as the physician should actually be in the room supervising the PA, right?

COMMITTEE MEMBER MOLDAWER: That is not my understanding of the medical definition of supervision.

COMMITTEE MEMBER GO: What is the definition of supervision?

COMMITTEE MEMBER LIGHTFOOTE: That can include standing orders. Standing orders are usually interpreted as sufficient for supervision.

- In view of the motion that was passed this morning, if it were adopted by the RHB, it would make fluoroscopy permits for CRTs irrelevant, right?

SUPERVISING HEALTH PHYSICIST RUSSELL: Correct. And the CRT would still require the same level of supervision from the physician either with the fluoro permit or the radiology certificate.

COMMITTEE MEMBER LIGHTFOOTE: Right. And you do accept standing orders?

SUPERVISING HEALTH PHYSICIST RUSSELL: Yes.

COMMITTEE MEMBER GO: Exactly what do you mean by “supervision”? What is the RHB’s definition of “supervision”?

SENIOR HEALTH PHYSICIST SCOTT: In Health and Safety Code, 114850(g), “supervision” means “responsibility for and control of quality, radiation safety, and technical aspects of all X-ray examinations and procedures”. Now, a definition does not necessarily help you understand what we are talking about.

- Health and Safety Code, Section 106980: “Certification in radiologic technology pursuant to subdivision (b) or (c) of Section 114870 shall not authorize any of the following: The use of diagnostic, mammographic, or therapeutic X-ray equipment except under the supervision of a certified supervisor or operator.”
- Health and Safety Code, Section 106965 talks about the application of X-ray a little bit different: “It shall be unlawful for any person to administer or use diagnostic or therapeutic X-ray on human beings in this State after July 1, 1971, unless that person has been certified or granted a permit pursuant to subdivision (b) or (c) of Section 114870 or pursuant to Section 114885, is acting within the scope of that certification or permit, and is acting under the supervision of a licentiate of the healing arts.”

So there are two aspects here. One is use of the X-ray equipment and one is application of the X-ray.

- The application of the X-ray can be done under the supervision of a licentiate, meaning a physician, an osteopathic physician, a chiropractor, or a podiatrist, as the case might be.
- When you use X-ray equipment, that licentiate of the healing arts would have to be a certified supervisor or an operator.

The key point I think is that the technologist may only use the X-ray equipment under supervision of the S&O, and that the technologist does not interpret any radiograph or base a diagnosis on it, report any diagnosis to a patient, except as

ordered by the licentiate, or use any title or designation implying that they have the right to practice the healing arts.

- If you want more clarity, we would have to go through rulemaking.
- This is not clear within the law, and it is not clear within the regulation.
- It brings up a lot of questions.

COMMITTEE MEMBER PUCKETT: I was going to share my interpretation.

- The PA is operating under my delegation of authority.
- The RT is operating under my standing orders.
- They are both operating under my authority. The interesting situation now is that you might have different S&Os for each individual.
- So in a hospital setting, you may have the PA who has now got a permit, but they are still operating under a physician's delegated authority.
- It may not be the same person who is the S&O for the RT. So yes, the PA can still say now would be a good time to apply fluoro if it fits.
- But if it does not fit within the S&O's idea of standing orders, then they cannot apply the pedal.
- They cannot direct the RT to apply fluoro, but they can invite them to do so.

COMMITTEE MEMBER CAGNON: That scenario you just described, having two different supervisors under two different authorities and maybe multiple sets of descriptions of scope of practice, even in a given institution, is where good intentions go bad, I think.

COMMITTEE MEMBER LIGHTFOOTE: It seems to me that is exactly why we enacted our recommendation this morning. It will obviate such presentations in the future. Not completely?

COMMITTEE MEMBER PUCKETT: I do not think it changes anything. It just saves the RT from having to get a second certificate. The lines of authority are exactly the same.

COMMITTEE MEMBER LIGHTFOOTE: Right.

COMMITTEE MEMBER CAGNON: Does anyone know what the other standards are in our professions about what constitutes supervision?

COMMITTEE MEMBER PUCKETT: CMS has one set. ACGME has another.

- It is defined by different organizations differently.

COMMITTEE MEMBER LIGHTFOOTE: And the degree of supervision varies as well; as Dr. Puckett was saying: direct, general, and personal supervision. Personal is assumed to be in the same room. Direct supervision is assumed to be in the same facility, and general can be standing orders.

Chairperson Taylor thanked Senior Health Physicist Scott and Supervising Health Physicist Russell for their presentation and then introduced the next speaker, Mr. Pezanoski.

## **XII. WORKING TOGETHER**

### **Ed Pezanoski, RCIS**

1. As introduced, I am a graduate of Grossmont College. My degree is in cardiovascular technology. My diploma was issued by the State of California and signed by the Governor. This degree is fully accepted at both state and national levels. I also hold an RCIS credential.
2. I have been educated to work specifically in the cardiac cath lab and have studied and become proficient in all things related to the cardiac care given in the cath lab. This specialized education includes radiology courses and training.
3. You have been given a letter written by Dr. David Hunter who represents the American College of Radiology and is the chairman of the Joint Review Committee on Education in Cardiovascular Technology, JRC-CVT.
  - In this letter, Dr. Hunter refers to someone like me who holds a degree and a credential, and he states, "They're completely qualified to operate fluoroscopic equipment under a physician's control."
    - Please remember that operation of fluoroscopic equipment does not include stepping on the pedal, which is the act that delivers radiographic exposure. The physician is the only person who may perform this act.
    - The technologist's responsibilities are limited to set up and operation of the fluoroscopic equipment, to ensure, with physician guidance, that the equipment is appropriately

positioned and optimally set to maximize the information provided while minimizing radiation exposure.

- With my education, I am allowed to perform my duties in all states except California.
4. In April, we made you aware that enforcement of the current interpretation in regards to panning the table has caused a large number of hospitals to replace cardiovascular technologists.
- This is due to the fact that cardiovascular technologists could no longer legally perform a small part of their job, assisting during fluoroscopy.
  - It is clear that this was done to avoid fines and cath lab closures.
  - This enforcement, unfortunately, resulted in leaving the cath lab team without this specially educated member.
  - By sacrificing qualified cardiovascular professionals, the team is at risk.
5. This is the regulation in question (CCR, Title 17, Section 30450):
- A radiologic technologist fluoroscopy permit issued by the Department shall be required of any technologist who exposes a patient to X-rays in a fluoroscopy mode, or who does one or more of the following during the fluoroscopy of a patient:
    - Position the Patient
    - Position the fluoroscopy equipment
    - Select exposure factors
6. Something is missing
- Best possible patient care?
  - In April, we had speaker Jeff Davis, who demonstrated to you the curriculum of a CAAHEP-approved cardiovascular technology program.
  - Mr. Davis explained in detail the education we get in cardiovascular anatomy, physiology, electronics, and radiology (just to mention a few of the courses).
  - I presented you a copy of the curriculum of both a cardiovascular program and an X-ray program prior to this meeting. Why is the curriculum so important?

- As is true with all professions, it is essential to have someone formally trained who understands the operation of the cath lab from all perspectives.
- It is very important to the cath lab to have someone who knows exactly what they are doing, someone who has been educated in the use and expertise of all the equipment, specialized tools, sterile techniques, and how to troubleshoot any problems that may occur.
- You need an expert. You need someone who understands what is going on in the heart during the procedure. You need the cardiovascular professional.

7. The CVT rotates through many jobs.

- Monitor role
  - Pressure waveforms
  - EKG waveforms
  - Vitals
  - Documentation
  - Operation and Troubleshooting all Equipment
- Scrub role
  - Sterile technique
  - Knowledge of anatomy
  - Expert with all equipment
  - Safe use of fluoroscopy
- Circulator role
  - Intra-aortic balloon pumps
  - Intravascular ultrasound
  - Fractional flow wires
  - Intra cardiac ultrasound
  - Rotablator
  - Ready for anything

8. Cardiovascular technologists have acquired the special knowledge, experience, and training to overlap into every one of these responsibilities. This is all covered in great detail in the cardiovascular curriculum.

9. What type of cardiac classes does an RT get to prepare them for work in the cath lab?

- I have search many radiology program curriculums and have never encountered one course in cardiovascular education.

- This special knowledge is exactly what a cardiovascular technologist brings to the team.

10. At the last RTCC meeting, Dr. Morton Kern spoke on how important it is to the physicians to have a qualified person assist them completely without having their hands tied. It is a fact that safety is compromised when an untrained person is doing a job outside of their scope of practice.

- Moving the table, moving the image intensifier, and adjusting magnifications are within the scope of practice of the cardiovascular technologist and are being performed every day without injury to a patient.
- Upon graduation from an accredited radiology program, an RT is very capable to operate in a typical radiology department, but they are not educated in cardiovascular technology and are untrained in cath lab procedures.

11. We each bring our own expertise to the team. Everyone is essential.

- MD
- RN
- RT
- CVT
  - Has over 600 hours of clinical experience with fluoroscopic procedures before graduation.

12. In the spring, when we asked for a very specialized profession to be acknowledged, it somehow turned out to be a slippery slope in which everyone else would follow. I am sure this would not occur.

- CVTs are not just anyone who follows. We are qualified cardiovascular technologists who are educated and trained to work in the cath lab and have been taught to safely operate fluoroscopic equipment.
- We have demonstrated that we are qualified.
- I believe that we are unique and should be considered for an exception.
- We spent much of the last meeting dispelling the notion that cardiovascular professionals are not appropriately trained.
- We provided abundant details describing how very important it is to have a team made up of many different specialties and how that was part of the success of the cath lab.

13. If it is the judgment of this Committee to continue interpreting this regulation allowing only those who hold a fluoroscopy permit to move the table and equipment, then I ask you to provide us a pathway to receive the necessary permit.
14. In April, I discussed in detail the creation of a limited permit for cardiovascular professionals.
- This permit would allow us to continue to perform within our scope of practice to assist during fluoroscopic procedures.
  - This pathway would allow for a limited X-ray permit for cardiovascular technologists and would demonstrate a formal educational requirement to satisfy proof of qualifications to:
    - Position the table,
    - Position the fluoroscopic equipment, and
    - Select exposure factors.

## DISCUSSION

COMMITTEE MEMBER ROGERS-NEUFELD: In your presentation, you said that this action was removing the cardiovascular techs from the lab.

- I fail to make the connection as to why the prevention of using fluoro removes the tech entirely from the lab. Why did you make that leap?
- Second, why would that one element of your job, which you have described as multifaceted and integral to running the lab, why would that one element cause so many people to leave their jobs?

MR. PEZANOSKI: It is a matter of money.

- As was mentioned earlier, the cath labs, the people, the hospitals, the physicians will be fined if we move the table in any way.
- It is more economical for the hospital to have someone assisting the physician who is capable of that one thing, to move the table.

COMMITTEE MEMBER ROGERS-NEUFELD: And a second part of the question is, there are several people that are in the cath lab: the doctor, there is usually a nurse who administers medication... Would you, in the future, want intravenous access or would you think that you would be able to deliver drugs as an integral part because you are saying that you are the key element to the running of that team?

MR. PEZANOSKI: We need the expertise of everybody there. And there are some limitations that California does have on cardiovascular technologists. In other states, cardiovascular technologists are allowed to do medications... but we study to perform as the circulator, the monitor tech, or the scrub tech, and we do take pharmacology classes because it is very important for us to know the effects of those medicines.

COMMITTEE MEMBER GO: Your position is multifaceted, where you do things like monitoring EKG waveforms, pressure waveforms, doing the vitals, et cetera. As a cardiovascular technologist, what percentage of your time is involved with the fluoroscopy equipment itself?

- The reason I am asking is, in terms of becoming a cardiovascular technologist, what percentage of the curriculum is devoted to fluoroscopy, fluoro training, radiation safety, et cetera, compared to the entire curriculum?

MR. PEZANOSKI: I think the next speaker can better answer that. I know that there are several classes.

- Percentage of time would depend on the physician.
- 10% or less.
- I know there are fluoroscopy safety classes and radiology classes.

COMMITTEE MEMBER GARCIA: You said that in California you are no longer able to operate fluoroscopy.

- It has never been in the capacity of an RCIS to operate fluoroscopy.

Also, you stated that radiologic technologists do not have the education in a cath lab, and I disagree.

- Not the primary education, but the post-secondary education.
- There are two certifications through the ARRT: one is the cardiac interventional radiographer with the credentials CI; the vascular interventional radiography technologist has the credentials VI.

MR. PEZANOSKI: My comment was that people who graduate from the program who are taking jobs in the cath lab are not required to have that secondary.

- A cardiovascular technologist has that education and has that a college degree by a college in this state, and we are recognized as a profession.
- We have been eliminated from the scrub position, unless the hospital is willing to pay for that extra person in that procedure to drive the table for that minimal amount of time.

COMMITTEE MEMBER CAGNON: It seems we kind of keep avoiding the real issue... It is a matter of money that a hospital or a lab does not want to pay.

- I do not think anyone is going to disagree that everyone brings an expertise and that expertise is important.
- So what we have, in my opinion, is a turf war. Which expertise is going to be the most critical, the most important?
- I think you are going to keep finding that radiation safety is paramount and that is an important training.
- I think all the training that the CVT brings to the table is very important.
- I would also encourage that a lot of these things may be important to bring up at a local level, at a privileging level, a credentialing level at the local institution.

COMMITTEE MEMBER MOLDAWER: Are there any other states in the United States in which the cardiovascular specialist cannot move the table or do the limited function that you are requesting licensure to do in California?

MR. PEZANOSKI: There have been some that I am aware of, and they have all been remedied through a legal process so that they are allowed to do what I am asking for.

COMMITTEE MEMBER ORTEGA: RTs are taught how to pan and move the table during their education, amongst other things.

- Monitoring and circulating have been the nursing or cardiovascular specialists' primary functions.
- If the organization is looking at having a cardiac specialist as one of their team members, there is scope and the team works within that scope.

COMMITTEE MEMBER ROGERS-NEUFELD: The question here is really about ionizing radiation. That is the bottom line. We believe, as radiologists at least, that this takes special training. And the technologists also go through extensive training in the control of ionizing radiation.

- The cath lab is notorious for having the highest exposure rates of any place in the hospital, with maybe the exception of IR, but outside the radiology department.
- It seems to me that you want to be able to control the ionizing radiation. Am I wrong about that?

MR. PEZANOSKI: Yes, you are wrong. We are not asking to step on the pedal or to have control of actuating the beam.

COMMITTEE MEMBER ROGERS-NEUFELD: So you just want to be able to position the patient?

MR. PEZANOSKI: That would allow us to continue our profession in full, because at this time, we are not in control.

Chairperson Taylor called for a break at 3:06 p.m.

### **XIII. BREAK**

Chairperson Taylor called for order at 3:24 p.m. and introduced the next speaker, Ms. Barrow.

### **XIV. USE OF FLUOROSCOPY IN THE CATH LAB AND THE ROLE OF THE SCRUB TECH**

**Elizabeth Barrow, BA, RCIS, CEPS**  
**Cardiovascular Technology Program Director**  
**Grossmont College**

#### 1. Cath Lab Procedures

- Left and Right Heart Catheterization
  - Right heart caths are our most typical procedure.
  - Left heart caths look at the coronary angios.
- Percutaneous Coronary Intervention (PCI)
- Peripheral Studies and Intervention
- Electrophysiology Studies and Ablations
- Pacemaker and ICD Implants
- TAVR/TAVI – Transcatheter Aortic Valve Replacement

#### 2. Left Heart Catheterization (LHC)

- Patient transported to Cath Lab via gurney or wheelchair
- Patient is positioned onto table
  - Head and shoulders must be “high” enough
  - Arms secured (Radial arterial approach)
- Patient is prepped and draped
- MD arrives
  - So once the patient is on the table, they are not actually moved.

3. Time for Fluoroscopy
  - On and off continuously throughout study
  - MD controls fluoroscopy use
    - The scrub assistant never does that in the cath lab.
  - Access – may or may not utilize fluoroscopy
  - Catheter placement
    - Up the aorta and into the coronary cusps
  - Set-up shot, then “Cine” run taken (digital acquisition)
  - Change angle of C-arm, another Cine run
  - Catheter exchange (usually 3 catheters used for LHC)
  - Left Coronaries (4-6 Cine runs), Right Coronary (2 Cine runs), and Left Ventriculogram
  - Diagnostic vs. Intervention
  
4. A Cine run was played to show the type of movement/scrub assistant moving the table during an angiogram.
  - The coronaries moved slightly (so that everyone got to see collaterals coming in on the right side)
    - Typical limitation of movement that we are talking about as a scrub assistant
  
5. Role of the Scrub Tech in Cath Lab
  - Drape patient and set-up field using sterile technique
  - Preparation of manifold, sheath, wires, catheters
  - Assist Cardiologist with access, sheath insertion, then catheter placement into coronary cusps
  - Set angles for Cine runs, move the table to follow contrast down coronary anatomy (look for collateral circulation)
  - Assist with catheter exchange, sterile connection for LV gram
  - Assist with closure device, tech insertion, manual compression
  - Or assist with intervention
  - Must communicate with other team members
  
6. PCI – Scrub Tech Role
  - Knowledgeable of all interventional equipment/supplies
    - IVUS, FFR, Guide catheters, interventional wires, balloons, stents
  - Rapid preparation, use of these interventional devices

- Potential risks
- Knowledgeable of all life-saving equipment/devices
  - Intra-aortic Balloon Pump, Impella, Tandem Heart, CPS

#### 7. Role of Scrub Tech

- Competent with PCI procedures
- Hemodynamic data
  - Interpretation
  - Anticipation
- Arrhythmia recognition
- Maintain sterile field

#### 8. Cardiovascular Technologist - Education

- First year: Medical Instrumentation (EKG Lab), Physics, Cardiac Physiology, Lab Practicum, Preparation for Clinical experience
- Summer: Cardiac Pharmacology, 96+ hours Hospital Clinical Assignment
- Second year: X-ray, Cardiac Interventions, Peripheral Studies, Electrophysiology, Preparation for Registry exam (RCIS), 256+ Hospital Clinical hours each semester
- AS Degree in Cardiovascular Technology
- 600 hours clinical hours in Cath Lab

#### 9. Invasive CVT Graduate

- Trained specifically for the Cardiac Catheterization Lab
- Can fulfill multiple roles on the team: monitor, circulator, scrub
- Expertise is often used to train new team members
- Ready to be part of the multidisciplinary team

#### 10. Why We Are Here Today

- Determine best pathway for the Invasive Cardiovascular Technologist to fulfill all aspects of the role of Scrub Tech.
- Interpretation of current regulations of the CVT working under the direct supervision of the M.D. and/or the Radiologic Technologist.
- A new category of limited permit X-ray technicians for the CVT in the Cardiovascular Catheterization Lab.
  - By limited, we mean the ability to move the table, pan the table, change the mag under the supervising cardiologist's

direction, magnification, and then setting the angles for the different shots.

- Legislative effort such as AB 356 (Physician Assistant 40/40)
- The person we are talking about is the cardiovascular technologist who has graduated from an accredited program.
  - As a reminder, last time we spoke a lot about the RCIS. That is simply a credential we can acquire, but we are really talking about the cardiovascular technologist.

## **DISCUSSION**

COMMITTEE MEMBER ROGERS-NEUFELD: I just want to make it clear on what you are asking for, because I understand you are asking for a limited fluoroscopy permit. I am unclear, again, as to whether you want to initiate the ionizing radiation or you just want to be able to position the patient after the study has started. And it is because of that particular clause that once the exam begins, it is the CRT's job to reposition the patient.

MS. BARROW: Exactly.

COMMITTEE MEMBER ROGERS-NEUFELD: What are you not asking for a change in the definition of the duties that the CRT is doing? Why would you ask for a fluoro permit if you did not want to initiate the radiation?

MS. BARROW: If you want to move the patient (so a slight movement), the regulations state that you do need to have a fluoroscopy permit, correct?

COMMITTEE MEMBER ROGERS-NEUFELD: At this point in time.

MS. BARROW: Yes. So we feel that if we could attain a limited permit, we could continue in our role as the scrub person, and that that was the only way to do it.

COMMITTEE MEMBER CAGNON: But following up, would it be fair to say that what you are really after is to be able to pan the table. You are not saying you necessarily want to have the limited fluoroscopy permit.

MS. BARROW: Exactly. And we felt that looking at Title 17, the only pathway we had was a limited permit.

COMMITTEE MEMBER CAGNON: I would remind, if I am not mistaken, in the cardiac cath lab, it is not the M.D. who has any radiation safety training necessarily. Radiologist training, of course, is different.

COMMITTEE MEMBER ORTEGA: If you are panning the table, that is when ionizing radiation is happening. What you want to do is to maneuver the patient while fluoroscopy is occurring.

- You are also asking to operate the equipment by changing the mags and doing angles, moving the table, which also means you should be moving the II, and making the tube at an appropriate distance, so that we do not get excessive radiation dose, which has generally been a radiologic technologist position.
- I am having a hard time trying to see how this can be temporary.

MS. BARROW: I completely agree with you and I think we have tried to emphasize that we really appreciate the fact that we are working in ionizing radiation.

- You know, no, we are not two-year graduates of a rad school.
- We try to use the right amount of education.
- I would be open if the Committee looks at it, if we need to extend that education.

COMMITTEE MEMBER GARCIA: I want to remind everybody in the audience as well as our Committee that the job of the RTCC members is not to ensure employment. It is to ensure the radiation protection of our patients in California.

- I want to reiterate that changing mag is manipulating technique. You are actually manipulating technical factors when you do that, which again is operating fluoroscopy.

MS. BARROW: I hear where you are coming from. Our college is WASC accredited. The program is accredited CAAHEP. It is the only accredited program in California for invasive cardiology.

COMMITTEE MEMBER GARCIA: This is strictly about radiation protection to the patient.

MS. BARROW: Our argument is that we feel that the quality of patient care is greatly affected by removing the CVT from the team.

- We are talking about a graduate of an accredited CVT program.

COMMITTEE MEMBER PUCKETT: I appreciate you focusing now to the CVT. Is a CVT licensed by the state at all?

MS. BARROW: They are not.

- It is a niche profession.

COMMITTEE MEMBER PUCKETT: The problem from my standpoint is if it does not exist under law, you cannot grant privileges to that person.

- It is hard to focus on CVT if it does not exist in law.

MS. BARROW: It is an acknowledged profession, nationally and statewide.

Chairperson Taylor introduced the final speaker, Dr. Smith.

## **XV. THE CATH LAB TEAM**

**Thomas Smith, M.D., F.A.C.C.**  
**Assistant Professor of Medicine**  
**University of California, Davis**

1. I work primarily in echo, some CT, as well as I am very involved in the TAVR program (the transcatheter aortic valve replacement program at UC Davis with all of the imaging), and then in the lab during the procedure for the placement of the valves.
2. I am on the board of directors for the California Chapter of the American College of Cardiology (ACC).
  - They express their support for cardiovascular technologists from accredited programs being able to pan the table and make adjustments that we have discussed before.
  - I want to talk from the physician's perspective in the lab.
    - Talk about the makeup of the cath lab team
3. The Cath Lab Team
  - Made up of a wide range of individuals with a very large diverse background. We have RTs, CVTs, and nurses with various backgrounds from ICU to ER. We also have cardiologists and fellows training in the lab.
  - From the CVT standpoint, these professionals have trained for two years. They have focused on cardiology for that entire period. They are well versed in the set-up, the utilization of the very complicated

tools that we have, like an Impella or ventricular assist devices, or diamond burrs for rotoablading. They are also very adept at understanding what is going on with the patient step by step.

- They can watch the hemodynamics, follow the operator, and they are working as a scrub or monitor.
- When you stand next to someone for a long enough period of time, the communication is interesting
  - When you know the person next to you is thinking the same way that you are thinking
  - Our RTs are certainly at that level. And our CRTs are as well, with their training.
- If there is something on the angiogram – say you inject the dye, and you see a vessel that is going the wrong way, and you need to track that vessel. Occasionally, as the operator, you may not have a free hand.
  - You are injecting with one hand, holding a catheter, or a wire, with another. Having that other individual be able to manipulate that table at the same time is very valuable (to be able to get all of the imaging that you want in that one shop; not to have to shoot it again or explain what you need to do next).
    - This is the person that has set up the rotoablader, or the balloon pump, or these very complicated tools.
    - But when you need them to move the table an inch to the right or an inch down, they are not able to.

#### 4. Example – Pacemaker Placement

- In a pacemaker placement, you have a table.
- Two people are scrubbed.
- You have a scrub handing wires, et cetera, to the operator.
  - The operator is usually on the left-hand side of the table putting the device in the pocket.
  - The scrub is usually on the right-hand side of the table.
- You have an RT in the room as well, or if the scrub is an RT, then they are in that position.
- You have a nurse that is moving or circulating in the room.
- At times, you have your hand on both of the wires, and you need to advance on of the wires while maintaining your left hand on the wire as well.

- At that point, you can either use your elbow to follow the wire down, or you can have your scrub, if they are an RT, they can pan down.
  - But if your scrub is a CVT, they are not able to do that, so you need to bring someone else into the room.
- If there is a place to move the table that is not in the sterile field, then they do not need to be sterile.
- If they need to be sterile, they have to be sterile to come in and move the table.
- It would be very easy if that individual who is that extremely well trained professional, who is anticipating your next move, can manipulate the table.

#### 5. Example – Complex Coronary Intervention

- You have got one hand on a catheter and one hand on a wire.
- Your assistant can inject the contrast. But if they need to follow a section or collateral, they are not able to do that under the current guidelines.

#### 6. I had to think back, did I have to take a class for my fluoro?

- I did not.
- Every year we do another 10 hours of training.

#### 7. In our lab, there is a dedication to patient safety with respect to ionizing radiation.

- Only the minimum amount that is necessary to be used is ever used.
- There are key points that are built into the process, but also awareness among everyone in the room.
  - When the radiation gets to a point, there are obviously mandated timeouts; but even before that, there is an understanding of the importance of limiting radiation to just what is necessary to open that vessel or to help that patient.
  - This understanding is not lost on the CVTs.
  - The RTs certainly are heading up most of the radiation safety committees, et cetera, that we work with, but it is a common team approach to reducing patient exposure to ionizing radiation.
    - When we work with CT or nuclear, it is the same thing.

8. Recommendation to the RTCC

- From the California Chapter of the ACC, in order to facilitate patient care in the cath lab, we would recommend that the graduates of an accredited CVT program have the ability to assist in the procedure by panning the table when fluoro is on, if you are doing fluoro during Cine, and make minor adjustments when the operator is not able to.

## **DISCUSSION**

COMMITTEE MEMBER ROGERS-NEUFELD: Again, I want to make the comment that you are not asking for the CVT techs to actually step on the fluoro and initiate the ionizing radiation.

DR. SMITH: Absolutely not.

COMMITTEE MEMBER ROGERS-NEUFELD: So why are you asking for a specialty permit? Because if you have a limited fluoro permit, it will follow along like the Physician's Assistants, so that they can initiate the fluoro.

- For the record, it needs to be stated that it was not this Committee that recommended a limited fluoro permit.
- That went through the legislative process to allow the PAs to do a fluoro.

DR. SMITH: Right.

COMMITTEE MEMBER ROGERS-NEUFELD: If the problem is just the definition of the procedure and the positioning of the table after the procedure has commenced, and you do not have any intentions of having them step on the fluoro, then I do not think the fluoro permit is what you are asking for.

- I think you are asking for a re-definition or exception to the definition of when the fluoro procedure begins.

DR. SMITH: Right. So what method would you propose then? Is that a legislative method or is that a method that this Committee would have a role in?

COMMITTEE MEMBER ROGERS-NEUFELD: I will defer to my colleagues.

COMMITTEE MEMBER GO: My feeling has always been radiation safety, number one, in the angio, because that is where the largest doses of radiation are actually administered.

- I believe the cardiovascular technologist field is very specialized, but I do not think your training is sufficient enough in radiation safety and fluoroscopy.

DR. SMITH: I would agree with you that the RT has much more training for radiation safety. I am just trying to address the procedural problem.

COMMITTEE MEMBER GO: Correct me if I am mistaken, but I think you said there was only one accredited program in California for CVTs. And how many cath labs are there in California?

- If there are CVTs that are working, are they all graduates from that one program? Are there a lot of other non-accredited programs in California?

DR. SMITH: If a limited permit were created, they would have to be accredited programs.

MS. BARROW: Many CVTs are actually Navy trained too. You will find a lot of those types of techs in the State of California.

- The Navy has a cardiovascular training program.
- When these techs leave the military, they will enter the cath lab.

COMMITTEE MEMBER GO: They get how much radiation safety, in terms of fluoroscopy training, et cetera?

- I do not know, right. You do not know, because it is not an accredited program.

MS. BARROW: I cannot speak for their curriculum. They are very serious about it, though.

COMMITTEE MEMBER GO: It is okay it is from the military, but that does not mean anything actually because it is not an accredited program.

COMMITTEE MEMBER LIGHTFOOTE: It seems clear to me that you need both of these people in the room. The two are not mutually exclusive. In fact, I think they really should be mutually inclusive, because their talent and skills, almost by definition, do not overlap.

- The CRT is the expert in radiation exposure. The RCIS is the expert in cardiovascular physiology. We need both of these people in the cath lab. They should be seen as the cost of doing business.
- If our hospitals are going to give the best quality cardiac imaging, they will have a CRT and an RCIS in the room.
- Can hospitals not afford that? Is that why we are having an extended conversation about expanding the licensure of one subset of people and talking about reducing the team to three, instead of four?
- If our hospitals cannot afford to do this right, we should not be doing it.

DR. SMITH: Hospitals would like an individual who can scrub effectively. And someone who cannot man the table cannot scrub effectively. So CVTs have lost value to the hospital.

COMMITTEE MEMBER GO: I asked Mr. Pezanoski what percentage of his time is spent doing the fluoroscopy portion. He said 10%.

- So that means then the other 90% of the time he is doing something else.
- Why does he not have value to the team, because he is doing the other 90%?

DR. SMITH: Well, you are at the table. Your fluoro may be on for a minute or two minutes during that period of time. And you are constantly moving to the back of the table, preparing stuff, going back. The fluoro is only on for five or six shots, unless you are fixing something; then it may be quite a bit more.

- Say fluoro started at 10:00, fluoro ended at 10:35, but I was only really using it for two minutes. It is throughout the entire procedure that you were using the fluoro.

COMMITTEE MEMBER PUCKETT: At the last meeting, Diane Garcia summarized it. It seems like you need a positioning permit, if you will.

- I think that might be the compromise. So I would like to make the following motion: I move that the RTCC support the development of a limited permit, or an exception to existing regulation, that would allow an individual, with specific education and experience to be defined or determined, the ability to position the patient or the equipment under the personal immediate supervision of the S&O, while X-rays are not being generated.
- It is not my intent to include the adjustment of the technical factors to initiate tube current or to move the patient or equipment while the tube is activated. This is specifically when the tube is off.

COMMITTEE MEMBER MOLDAWER: I will second that motion.

COMMITTEE MEMBER CAGNON: I think there are a couple little problems.

- I think you will have must less dose to the patient if you are positioning the table while fluoro is on. Otherwise, you are iteratively stepping and shooting.
- I also think that virtually nobody changes a thing once that beam is initiated.
- The machines have hundreds of parameters that could be set, but of course the vendors have made it incredibly automated.
- So it becomes a matter of who is necessary.
- I think that we, as a committee, want to figure out a way to get around this and help.
- I think another problem is that there is not enough resource or room to have too many bodies at the table.
- What is the specific credential from the RT side?

COMMITTEE MEMBER ORTEGA: I have the CV, the cardiovascular interventional credential from ARRT.

COMMITTEE MEMBER CAGNON: So my question, Dr. Smith, is do you think that your institution would actively seek people?

- I think the role of the cardiovascular tech is extremely important and we are trying to find a mechanism to allow that.
- Do you think your institution would actively seek an RT who has the specific extra education?

DR. SMITH: Absolutely.

COMMITTEE MEMBER GARCIA: I disagree with the positioning variance.

- The minute you move the table or mag or angle anything, you are talking technical factors, period.
- Any movement of that patient talks technical factors.
- I agree that some physicians really pay attention to that. I also want to state that many do not, and so I disagree that this is really simple, just a little variance.

COMMITTEE MEMBER BUTLER: I strongly support the proposal and the motion on the floor. It would address a broader issue in surgery, in general.

- It would address the cardiac issues, but we also face the same issues in many branches of surgery. Orthopaedics, general surgery, urology, and neurosurgery all face this.
- The problem is that during surgery at the sterile table, it is all prepped and draped out. The only ones that have access to that patient and the imaging head over the table are the persons in sterile drape at the table. That is the surgeon and his assistant. And the assistant is trained for that procedure.
- We are not talking about moving the machinery. It is just the rotating head on the top. That does not change the position of the machine.
- We need to update the regulations to accommodate the way that modern medicine is practiced.

## **MOTION**

The committee members approved that the RTCC support the development of a limited permit, or an exception to existing regulation, that would allow an individual, with specific education and experience to be defined or determined, the ability to position the patient or the equipment under the personal immediate supervision of the S&O, while X-rays are not being generated.

Motion: Committee Member Butler

Second: Committee Member Moldawer

Motion passed: Vote 5 Yes, 4 No, 0 Abstain

## **XVI. PUBLIC COMMENT**

MR. WEAVER: I work for a Class I medical device design manufacturing company called CFI Medical.

- We are one of several FDA-approved companies that develop, market, and sell products used in cath labs around the country, including devices that address radiation exposure incurred by interventional cardiologists, radiologists, techs, and nurses.
- Lead aprons have been the standard of protection for the past 50 years. With the increase in non-invasive fluoroscopy imaging procedures over the last 15 years, they are proving to be inadequate regarding worker radiation protection.
- Not only is there mounting evidence of increased cancers in cath lab workers, they are also experiencing certain orthopaedic problems at twice

the rate of the general population. This can force our health care workers to choose between their profession and their own health and standard of living.

- In materials you will receive after this hearing, we have provided summaries of studies and white papers from the medical community chronicling the science behind these issues, as well as calls for solutions from the medical device community.
- As this affects medical and health professionals, rather than consumers, these problems do appear to be silently tolerated. For this reason, we believe the orthopaedic and radiation dose challenges faced by our cath lab workers is worthy of greater dialogue and that the Committee will direct its attention towards and dedicate a portion of their April hearing agenda to them both.

MS. SLECHTA: I would like to recommend to the Committee that somebody at the next meeting make a motion to change the format for the RTCC meetings.

- The reason I state that is because of your last vote. You are all experts, and I must say that this meeting has been wonderful. You have all been involved. We have had lots of expertise actually on the Committee that has come forward about issues, and you are all well educated in those areas.
- During the period of time when I sat on RTCC for eight years, we had a motion, we had second, we had discussion, and then we asked for comments from the audience before we ever took a vote, because there may have been something that we did not hear, such as the fact that the radiation protection of moving the patient changes that isodose curve in the room, and it is not the patient protection, it is the personnel protection, that you are also responsible for.
- So things like that did not come up. Maybe you had considered them on your own. There are a couple other things I would have raised, or maybe someone else would have raised. Some of us have taught these topics for years.
- In your discussions, as an RTCC member, you should take into account maybe outsiders' input before you vote. And you have to request the change of format as a member.

MS. CLAUSEN: Can a CV Tech inject contrast in the lab?

MS. BARROW: Yes.

MS. CLAUSEN: I did not think that was in their scope.

- Many people here may not realize that there are a lot of states that do not have any licensure in this country for any imaging personnel.
- California is lucky to have some of the strictest standards to regulate that, and as a reason for instituting the fluoroscopy permit, as we saw earlier in the history of the fluoroscopy permit.
- We should look to that as us being a leader in the country and that only seven states allow for the RCIS to be recognized in the functioning capacity of an RT.
- And so we should remain and stay strong with the higher standard that we have had.

MR. BOJORQUEZ: I want to commend the presenters today for presenting some material that I was not aware of and the training and background of the RCIS folks.

- I do not see why the folks that are employed in that profession could not be radiologic technologists that would already have fluoro permits, in which case this would be a moot point.
- Let us not forget that recently the Joint Commission proposed changes to radiology standards following their Sentinel Event Alert 47, which was asking us to think about this exact thing, about where we go from here and establishing protection measures for fluoroscopy that address the other areas, not just CT.
- And so the decision today is kind of laying that foundation for how we are going to move forward here in California.

CHAIRPERSON TAYLOR: Just a point of clarity. I know in probably the last two, three, four meetings that Diane has consistently requested input from the professionals in the audience with motions on the floor.

- That has been allowed.
- So there just have not been any other members that have solicited that comment, but it has happened for many meetings now.

MS. LANG: On behalf of Judy Rose, Director of the Merced College Radiography Program, we would like to open a dialogue about starting an RT Education Fund for our students within the RT community.

- There is a similar program in existence for the nurses already for when they renew their certificates.

- We would like to propose to have that for our students and for our profession.

## **XVII. CLOSING COMMENTS**

Chairperson Taylor provided information about the next RTCC meeting:

- April 2, 2014
- Southern California
- Location to be determined

Chairperson Taylor thanked everyone who assisted with, attended, and participated in the meeting. She then acknowledged that the CDPH will continue to partner with the regulated community in an effort to better serve the citizens of California, stakeholders, and the Committee members.

Chairperson Taylor adjourned the meeting at 4:30 p.m.