

2019 VSRT Student, Educator, & Technologist Seminar
Wyndham Virginia Beach Oceanfront, Virginia Beach, VA
April 4-6, 2019

Lecture Abstracts

Passion for the Profession

An autobiography of a technologist. This narrative of one technologist spans a time period of nearly 40 years of obstacles and opportunities. It covers how a cancer survivor overcame these challenges and developed into a nationally and internationally acclaimed speaker and author. It is a story of opportunities gained and experiences learned.

Radiation Dose Description in Diagnostic Radiology

A summary of radiation dose description will be presented. Radiation dose will be defined and various metrics will be described. Methods of dose prediction will be outlined. Radiation dose distribution will be covered as well as methods for calculating radiation dose.

Radiographic Positioning Review Including Anomalies Encountered in Daily Practice

Radiographic procedures are often performed with little thought regarding the underlying rationale. This **two-hour presentation** presents selected normal radiographic projections and presents anomalies to assure providing quality patient care.

Molecular Imaging and the Application of Theranostics

Theranostics is a relatively new approach in Nuclear Medicine and molecular imaging where diagnostic and therapeutic applications are applied to imaging and treat the same disease. Initially discussion will identify nuclear medicine role in imaging and treatment of thyroid disease with radioactive iodine. As we explore this evolving concept of theranostics, the technologist will assess the ability for our imaging profession to image and treat neuroendocrine tumors.

Dealing with Difficult Situations for the Educator

In the Medical Imaging field most educators come from a clinical as opposed to an educational background. Situations arise that we all, particularly new educators, are often unprepared for. This lecture will discuss management of student behavior, dealing with parents and building better relationships with colleagues.

Limiting Patient Radiation Exposure: An Educator's Perspective

The debate regarding low dose medical radiation exposure and biologic risk continues today. Although many factors are outside the control of the radiographer, many imaging variables within the radiographer's control can individually and collectively limit the patient's radiation exposure. A review of factors that impact patient exposure will be discussed along with the challenges of digital radiography in an effort to identify strategies to limit patient radiation exposure.

How Can I Engage my Student? Utilizing Educational Technology Resources

In vocational education such as with medical imaging, the majority of instructors originate from a clinical background, as opposed to any sort of educational background. Having a strong base of knowledge and experience in the material being taught is immensely helpful; however, it can be challenging (if not outright difficult) for new instructors to deliver material in an interactive, engaging manner, in large part due to not having taught in a classroom setting previously. Using old fashioned power points and hour-

long lectures will surely lead to a good snooze for your students, but we are not in the business of instructing professional nappers. The use of technology with all of its various forms and presentations can help reach the wide array of learning styles encountered in classrooms today. There are countless resources and technology-driven, interactive media elements available for use by instructors and students, and these resources help to benefit classes by elevating understanding and overall retention of material due to increased discussion, engagement and participation. Many of these resources are available for free, and can be incorporated into your classroom instruction (or learning) as soon as you are ready to get the (mouse) ball rolling. Start small! Get to know how your students learn! Who knows, you may even learn a thing or two yourself.

Pass it the First Time: Preparing for the Radiography Certification Exam

Assessing the content of the certification exam and one's own strengths and weaknesses are keys to a successful outcome. This presentation will lead students and educators through the process of test preparation, knowledge of test content, and how to manage the test-taking experience.

Is Artificial Intelligence the Future of Medical Imaging?

Medical imaging has been around for over one hundred years and many changes have occurred in the imaging process. Digital imaging has revolutionized how images are created and has had a positive effect on the care of patients. The future of medical imaging will include the addition of artificial intelligence in both attaining and interpreting images. This lecture will discuss how imaging has changed, and is expected to continue to change in how images are created and interpreted to provide the best quality of care for the patient.

It's Not Just A Paycheck – Teaching Empathy To Students

This course will discuss empathy and the importance of teaching this essential patient care concept throughout the curriculum, after graduation, and beyond.

Prime Factors

In radiation sciences, understanding the prime factors is the key that drives the bus in radiography. The discernment of interrelationships between these factors is of utmost priority for student radiographers. This lecture focuses on each of these factors and defines the primary and secondary relationships that are inherent within each one.

CT @ 60MPH

At the conclusion of this one (1) hr presentation the attendee will have an understanding of Emergency Mobile CT scanning in an ambulance. This will include the history of Emergency Mobile CT scanning; how an ambulance is built and installation and types of CT scanners used. In addition exams performed, protocols utilized and case studies presented.

Managing Millennials

Millennials make up almost 50% of today's workforce, which is also the largest. This brings about many new challenges that did not face previous generations. We will discuss current generations that make up the workforce, how they interact, and they can best communicate, adapt, and share their changing vision for our future.

And You Thought X-ray Physics Had to Be Boring!

Though radiographers use these principles and equipment everyday, many do not stop to think about their role in image production. This review of physics takes those attending through a review of the art and science of medical radiography. Using humorous anecdotes and strong interaction with the audience, the speaker will provide a new appreciation for a difficult topic.

Digital Radiography Update & How we got here

Presenter will cover the technical aspects of Digital Radiography. Detector differences including wired vs wireless will be discussed. Information on current Digital Radiography configurations will be presented. Sufficient time for Question & Answers will be included.

Caring For the Teachers; Limiting Faculty Stress

This course will discuss how the student expectation of immediate feedback and increased faculty responsibilities can lead to increased faculty stress. We will discuss the health effects of stress and why too much can be bad for you. We will also discuss best practices to limit faculty stress before burnout or physical distress.

Image Receptors and Image Acquisition

Characteristics desired in a good quality radiographic image will be described. Image acquisition will be discussed and compared between digital and film-screen image receptors. The major components of computed radiography (CR) and direct radiography (DR) image receptors will be compared and contrasted.

Approaches to Improving Quality in Common Nuclear Medicine Gastrointestinal Imaging Procedures

Three common nuclear medicine adult gastrointestinal imaging procedures are examined—gastric emptying, hepatobiliary, and gastrointestinal bleeding scans. Many institutions have lost view of professional imaging standards needed for accurate diagnostic results for these procedures, but professional standards are readily available for physicians and technologist to use to establish evidence-based practice. Proper indications, technique, interpretation, and reporting standards are reviewed in an effort to provide a model for consistent and diagnostically valuable nuclear medicine imaging.

Healthcare IT & The Radiology Department

Presenter will cover how Healthcare IT has changed the way we work in 2019. What are all of the components that make up what we call Healthcare Information systems.

Digital Image Processing and Display

Discussion will focus on how the acquired image is computer processed to achieve a quality digital image for display. Vendor specific exposure indicators will be presented and compared. Important features of display monitors will be explained in addition to common post-processing procedures. Digital exposure techniques will be discussed in terms of their effect on image quality and patient exposure.

VCU Health System Imaging Safety & Compliance – A Five Year Follow-up

The session will describe the 5-year progress of an Imaging Safety and Compliance (ISC) program at Virginia Commonwealth University Health System. Leadership and governance, quality assessment performance improvement initiatives (QAPI), metrics analysis, and program outcomes will be described.

An overview of ultrasound, diagnostic/fluoroscopy and MRI safety programs will be presented along with associated regulatory guidelines and standards.

The Challenge of Teaching MRI in the Future

Since its initial beginning in the mid to early 1980s, magnetic resonance imaging (MRI) has experienced tremendous growth. Primarily used to image the brain and spine, MRI today is being used to image a greater variety of applications than were ever expected. For educators, whose primary responsibility is teaching MRI to entry-level students, the challenge is to stay current with the latest imaging applications. Course curriculum and program modification needs to be considered. Updated educational material needs to be developed. Clinical training experiences need to be established. As a profession, MRI educators should work together to establish current and future didactic education / training experience needs to benefit the patient and the medical community.

ARRT 101

VCU Health Ultrasound Imaging Safety Program

VCU Health System has identified a new Imaging Safety and Compliance Office (ISC). One of the missions of the ISC is to create a best practice for use of ultrasound services within the VCU Health System. To fulfill this mission the ISC provides leadership, coordination, and oversight to ensure a consistent approach to ultrasound policies and procedures. A needs assessment was done to gather information from sites within VCU Health System currently using ultrasound equipment for diagnostic and therapeutic purposes, and identify baseline metrics that will contribute to the development of a best practice for use of ultrasound services.

Needs assessment methods and results will be presented along with facility recommendations.

ARRT Standards of Ethics

CT Radiation Dose Monitoring: A Commitment to Radiation Safety and Image Excellence

Attention CT Technologists and leadership, do you know what CT protocols produce the highest radiation doses in your CT department? Do you have a process of monitoring those radiation doses? The purpose of this course is to introduce the learner to various CT radiation dose monitoring systems and data collection by sharing the experience from a large academic medical center. The attendee will have an understanding of The Joint Commission (TJC) requirements regarding patient radiation dose monitoring and reporting and will be better informed regarding patient dose monitoring system options. This presentation demonstrates how an institution's commitment to radiation safety, regarding patient dose monitoring, can enhance patient care and improve patient safety.

Build the Wall

The history of the peoples of the world is filled with many different types of walls. Most recently we have been consumed by consideration of a wall between the USA and Mexico, the Trump wall. But for medical imaging there have always been walls designed for our protection. This presentation will describe the how and why of our walls.

When You Think You've Seen Everything: The Bizarre Side of Radiology

Radiographers acquire amazing images from a wide range of patients. However, many images stand out for particular reasons. This presentation visually examines the more extreme cases where technologists were challenged to demonstrate critical thinking, strength, professionalism, and even a sense of humor. This session will take you on a journey to the bizarre side of radiology.

Meeting the New 2019 Joint Commission Standards for Fluoroscopy

In June of 2018, The Joint Commission released its Prepublication Requirements for the Standards Revisions for Organizations Providing Fluoroscopy Services. This course seeks to address patient dose monitoring and physician and staff education.

Radiation Therapy: Then, Now and the Future

At the conclusion of this one (1) hour presentation the attendee will have an understanding of who were the first Radiation Therapist, How the Radiation evolved to today's Therapist. To include, but not limited to, early development of radiotherapy, equipment, radiation issues and early pioneers in the field of Radiation Therapy. In addition, we will look at the advances that have occurred up to the present as well as future advances in the field.

You too Could be a Superhero

This presentation will identify the following the roles of an educator, techniques used in teaching online and in the classroom, 1 min. flip the classroom, interactive activities to facilitate student learning, discussion boards, outside technology collaborations, homework assignments, and student collaborations.

The Importance of Empathy and Its Application in the Radiologic Clinical Environment

Research indicates that health care provider empathy in the clinical setting makes a strong impact on the patient's perception of the quality of care. A review of the literature reveals theories regarding the development of empathy in human behavior and its benefit to society. Multiple studies also suggest a relationship between empathetic care and positive patient outcomes. Different classifications of empathy are examined, as well as health care delivery conditions that impede empathetic care. Suggestions are made to incorporate empathy developmental strategies into professional health care education and to encourage the practice of empathy in the radiologic health care environment.

Using Google Docs to Amplify Your Pedagogy

Updating and improving your pedagogy with new and innovative technologies may seem labor-intensive. Many educators are not even sure where to begin. Let's take a look at how to start the process using a technology that has proven to be successful. Google docs is a cloud-based software that allows its users to create documents, PowerPoints, excel files, proposals, and more. Moreover, let's take a look at how to use google docs to help us bridge the gap between past and present pedagogies and begin to use technology to our advantage; both in and out of the classroom.

Prostate Cancer and Imaging

At the conclusion of this one (1.0) hour presentation the attendee will have a thorough knowledge of Prostate Cancer as well as imaging of the prostate. In addition, radiographic pathology will be demonstrated through the use of case presentations.

The Role of Diagnostic Imaging in Radiation Oncology Treatment Planning

Radiation Oncology has become more reliant on diagnostic imaging over the last decade. We will outline the use of diagnostic images in radiation oncology treatment planning and give examples of fusion techniques used by dosimetrists and physicists in the clinic.

What in the World is Interventional Radiology?

The evolution of Interventional Radiology practices has created a need for highly skilled and trained interventional radiologic Technologists. This lecture will focus on the history of IR; the early, current and

future practices; and how we use fundamental knowledge to lay the foundation for building successful interventional radiographers.

What it Means to be a Radiologic Technologist & What I Have Learned

What it means to be a Radiologic Technologist. What we need to do to

Global Health – Radiology Abroad

This presentation will identify the following: types of imaging that can be found in 3rd world countries, different organizations that are involved with imaging, differences in imaging professionals globally, expectations of volunteering, how to get involved, overcoming barriers when working with imaging professionals, different needs associated with equipment, safety in working abroad, experiences of previous volunteers, and ways technologists can get involved in global health related to imaging.

Legal Issues in Radiology

One credit course discussing professional ethics in the radiologic and imaging sciences, as well as civil and criminal law, and how medicolegal issues relate to the radiologic technologist in the clinical setting. Real-life case examples will be given for discussion and interaction.