Association of Collegiate Educators in Radiologic Technology

48th Annual Conference

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Abstracts

1. **Image Analysis: An Art and Science**

   In the digital age of radiography, image analysis has evolved. This topic reiterates to radiographers the important of evaluating their own or student images as well as developing consistent corrective action plans for errors.

3. Thriving Post Pandemic: Keys to Resilience

This presentation is the result of research completed at Weber State University in response to the Covid-19 pandemic. Regardless of professional burnout, many students are thriving and surviving the harsh environment. This presentation focuses on how they are resilient and in what ways others can become more resilient.

4. The Mental Health of Medical Professionals

This lecture presents some of the most common mental health challenges that medical professionals (and students) face because of their work environments. Risks, pitfalls, and examples of challenges are presented as well as a variety of solutions at the individual and organizational level.

5. CI or Staff Technologist: Which Comes First?

As a CI, how does one provide patient care with students? Students would number up to 10 on a daily basis, however with the rule of one student working with the CI it became a challenge to divide time between students and department load. Where do your obligations lie? How can we maintain the high level of patient care with attention divided between quality patient care and quality student experiences?

6. X-ray Beam Geometry in Clinical Application

Students' understanding and application of the x-ray beam geometry in professional practice improves their ability to obtain optimal diagnostic radiographs in various clinical situations. This presentation aims to provide students with applicable techniques of using beam divergence, tube angulation, off-centering, and distortion to improve the visualization of radiographic anatomy.

7. And You Thought X-ray Physics had to be Boring!

Though students and radiographers use these principles and equipment every day, 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.

8. **Accreditation in a Political Landscape**

This session will provide an overview of current events, policies and procedures occurring in accreditation in higher education. It will include information from the United States Department of Education (USDE) and the Council of Higher Education Accreditation (CHEA).

9. **CI Expertise to Student Success**

This presentation will address some successful clinical instructor strategies and how to overcome some of the common barriers encountered in clinical experiences.

10. **Patient Care: Patient Interactions and Management**

This lecture will be an interactive review of the patient care content that students need for their national registry exam.

11. **Policies, Procedures, and Interim Reports, Oh My! Where do You Start?**

There are numerous JRCERT policies and procedures, so how do you know when they are applicable to your program? Where do you locate them? This session will identify the most used policies and procedures as well as circumstances or situations that require their application. We will also provide an overview of the Interim Report process as well as best practices for creation and submission.

12. **Using Technology in the Classroom to Engage Students**

Program faculty attending this course will come away with several new tools to use in their classroom to improve active learning. They will be shown specific examples and have a chance to explore the tools themselves.

13. **Adapting Projections for Mobile and Trauma Radiography**

Adapting textbook projections for mobile and trauma situations is challenging for students and new graduates. This presentation will mainly target students but might benefit new clinical staff as well.

14. **Don't Count 'em Out – Working with Students with Disabilities**

Disabilities can be in many forms, some physically visible and others not. This talk will provide insight how to navigate the various disabilities students present during the program. We will talk about our own experiences in assisting students with unique situations.

15. **How to be an Effective Educator**

Stephen Covey's 7 Habits of Highly Effective People (1989) has been regarded in high esteem for decades among leaders and academics alike. It holds true today and is a highly accessible way to promote growth in people. Educators will learn how to apply these 7 habits to their professional growth in the medical imaging community.

16. From Grad to RAD!

This topic is intended for radiologic science students to help them prepare to enter the workforce as a certified radiologic technologist. The guiding documents and expectations of the profession will be reviewed and discussed.

17. Is This a Trick Question? A Guide for Writing Effective Test Questions.

Educators often struggle with the appropriate format and use of test questions and rubrics. As education has progressed, rubrics are much more prevalent than they were even 15 years ago. Understanding the purpose and use of both rubrics and tests will enable educators to better evaluate summative and formative evaluation.

18. A Stint in the Stent Labs: Understanding Cardiac and Special Labs

This presentation discusses the early history of catheterization and major contributors to interventional radiology. A comparison of cardiac cath labs and interventional radiology labs will be discussed to understand differences in equipment, procedures, and general anatomic regions imaged/treated. Lastly, notable pre, peri and post procedure patient care, as well as common complications and how to treat them will be covered.

19. Image Analysis at MI Pace

MI PACE is a systematic approach in critiquing positional and technical accuracy of the x-ray image. Using a systematic approach reduces the chance of missing important details and provides a structured plan during stressful situations.

20. Understanding Trauma Informed Care

Research in recent years has demonstrated that health care professionals with training in trauma informed care are better able to identify situations that may trigger trauma and affect the outcome of patient care. By understanding trauma and learning to do a thorough history, we can better treat our patients that have been affected by trauma by de-escalating events that may happen.

21. Using Graphic Organizers to Facilitate Student Learning in Radiation Physics

This presentation will provide radiologic science educators a variety of graphic organizer tools to facilitate learning in radiation physics/equipment courses.

22. Watch Your Back! Injury Prevention for the Radiologic Technologist

Musculoskeletal injuries are 71% higher than the overall rate for workers in private industries in the US. It is crucial that future technologists are aware of this risk and take every measurable effort to decrease their chance of musculoskeletal injuries during their career.

23. Optimizing the Learning Experience

This lecture provides practical strategies for active learning. Faculty will learn how to evaluate students study habits and recommend strategies to improve test taking and retention of information. These concepts allow for am more effective way to deliver difficult material while engaging the student.

24. Trauma Informed Educational Practice

This topic will provide educators with informational insight and define all aspects of trauma informed educational practice. After completion of this session, the necessary tools will be obtained to assist in achieving successful educational outcomes.

25. A Case for Interprofessional Education

Case study to show the importance of interprofessional education and why students should take advantage of learning with other allied health professions. Through interprofessional collaboration, an 11year-old boy's life was saved and his quality of life preserved.

26. Personality Traits and the Brain

Even though research of personality trats has been happening since the early 1900's, the general acceptance of Big Five Trait Taxonomy didn't truly become accepted until the 1980's. Along with personality trait taxonomy, the 1980s were when the first MRI machines were commercially available. Since then, MRI and research of personality traits has substantially expanded. This discussion will review the Big Five Personality Traits and how they connect with the brain. It will explore brain anatomy and the uses of Functional MRI in understanding personality and behaviors. From this discussion, we will explore how these personality traits contribute to our being healthcare/radiology professionals.

27. Obstacles and Challenges in Student Success

Students are facing new and changing challenges. This presentation will identify those challenges and offer ideas on how to troubleshoot and offer help to the students.

28. Building Your Self Confidence as a Student/New Technologist

The primary audience for this presentation includes students and recent graduates from an x-ray program. A plethora of intimidation and apprehension surrounds this demographic and learning how to overcome these mental blocks is vital for someone new into the x-ray technology career field.

29. Imaging the Endocannabinold System

The medical and recreational use of cannabinoids such as THC and CBD is a continuing social issue which effects everyone, including students and program/clinical faculty. This presentation will discuss how medical imaging may lead to changes in how society uses these drugs.

30. Radiography Student and Faculty Perceptions of Medical Education Modeling

Medical Education Modeling (MEM) is an educational pedagogical practice where students practice modeled skills in the classroom on their peers. As part of the process, faculty will demonstrate radiographic procedures on those same peer models. While research exists regarding student perceptions and comfort levels with eh process in other medical fields, little research exists on how radiography students and faculty feel about their role during MEM. This presentation will provide original research from two doctoral dissertations that aimed to understand how radiography students and faculty perceive this pedagogy and understand their comfort levels in touching various areas of the body. The benefits, concerns and comfort levels expressed will be presented with implications for use of the pedagogy for radiography education.

31. You Can't spell Las Vegas without sV: Evaluating Patient Dose

This talk is intended as a refresher for RT students on the details of patient dose calculations and how they are performed with context on stochastic risks. Concepts of effective dose, skin dose and tissue weighting factors will be reviewed and studies involving risk estimates will be covered. The application to patient gonadal shielding will also be discussed. New technology of carbon nanotube x-ray tubes will also be introduced.

32. Leaving Gravity Behind: MRI Effects of Microgravity on Human Physiology

Innovations in our profession are ever-changing. The use of imaging in unconventional settings allows students and technologists to expand their critical thinking skills and strive for professional mobility in these new environments.

33. Forensic Radiology

The ASRT now provides an educational framework for Forensic Radiography. This emerging specialty is now gaining momentum as a valuable aspect of forensics. Medical imaging provides the scientific backing and tools needed to enhance our existing capabilities.