SEAAPM 2012 Symposium and Meeting

Quality, Safety and Compliance: How to address the triple challenge of modern imaging and therapy

April 18-20, 2012
Marriot Downtown, Atlanta, GA

Directors:
Ehsan Samei, Ph.D., Duke University
Larry Marks, MD, UNC Chapel Hill
Kevin Junck, Ph.D., Univ. of Alabama at Birmingham Health System

Abstract

In recent years, radiation imaging and therapy have experienced a new surge of advanced technologies in the clinic. While these new technologies enable a higher level of clinical performance, they also pose new challenges that stem from complexities of the new systems and the degree of variability in their implementation. At the same time, patient safety has taken a center stage in medical practice, and new regulatory and compensation methods have brought forth new requirements for the standardization of therapy and imaging operations in compliance with professional guidelines. While all these movements are encouraging as positive steps towards improving patient care, they pose new challenges for clinical practitioners including clinical medical physicists. How can we concurrently achieve the triple goals of maintaining a high degree of patient safety and a high level of quality performance while remaining compliant? This symposium addresses this very objective through invited lectures given by the thinkers, enforcers, and practitioners of quality imaging and therapy operations. The symposium strives to cover three topics of 1) the basics of quality and safety – the “why” question, 2) the process of achieving and maintaining enhanced quality and safety – the “how” question with ACR accreditation as the platform – and, 3) the effectiveness and the limitations of clinical implementations towards the ultimate goal.

Target Audience: Medical Physicists, Medical Dosimetrists, Radiation Therapists, and Professionals in radiology, radiation therapy, and nuclear medicine

CAMPEP credits: 13.5 (9.5 for Symposium and 4 for Meeting) of MPCEC hours requested for approval
MDCB credits: 16.5 of MDCB hours requested for approval
Symposium Faculty

Theresa Branham, BSRS  
Program Manager, CT/MR Accreditation  
American College of Radiology, Reston, VA

Benedick A. Fraass, Ph.D., FAAPM, FASTRO, FACR  
Vice Chair for Research and Director of Medical Physics  
Department of Radiation Oncology  
Cedars-Sinai Medical Center, Los Angeles, CA

Mannudeep K. Kalra, MD  
Assistant Radiologist  
Massachusetts General Hospital, Boston, MA

Carolyn R. MacFarlane, MS, CNMT, RT(N)  
Program Manager, Nuclear Medicine/PET Accreditation, Ultrasound Accreditation  
American College of Radiology, Reston, VA

Lawrence B. Marks, MD  
Professor and Chairman  
Department of Radiation Oncology  
University of North Carolina, Chapel Hill, NC

Brian T. Monzon, MBA, RT(R)(T)  
Program Manager, Quality and Safety, Radiation Therapy Accreditation  
American College of Radiology, Reston, VA

Todd Pawlicki, PhD  
Associate Professor, Director of Medical Physics and Clinical Operations  
Department of Radiation Oncology  
University of California, San Diego, CA

Donald Peck, PhD, DABR, FACP, FAAPM  
Vice Chair, Department of Radiology, Imaging Physics and Research  
Henry Ford Medical Group, Detroit, MI

Douglas Pfeiffer, MS, DABR  
Medical Physicist, RSO  
Boulder Community Hospital, Boulder, CO

Ronald Price, PhD, FAAPM  
Professor of Radiology  
Vanderbilt University, Nashville, TN

Ehsan Samei, PhD, DABR, FAAPM, FSPIE  
Professor and Director  
Carl E. Ravin Advanced Imaging Laboratories (RAI Labs) and Clinical Imaging Physics Group  
Department of Radiology  
Duke University Medical Center, Durham, NC

Prabhakar Tripuraneni, MD, FACP, FASTRO  
Head, Division of Radiation Oncology  
Scripps Clinic Torrey Pines, La Jolla, CA
Symposium Schedule

**Wednesday, April 18**

6:00-8:00  Symposium Registration & Ice Breaker

**Thursday, April 19**

**I. Clinical Perspective**  
*Session co-chairs: Ehsan Samei, PhD and Larry Marks, MD*

8:00-8:15  Welcome and Introduction

8:15-9:15  Current State of Quality and Safety in Radiation Therapy  
Larry Marks, MD, UNC Chapel Hill

9:15-10:15  Current State of Quality and Safety in Diagnostic Radiology  
Mannudeep Kalra, MD, Mass General Hospital

10:15-10:45  BREAK

**II. Imaging**  
*Session chair: Ehsan Samei, PhD*

**IIa. Principles**

10:45-11:30  Principles of Quality and Safety in Diagnostic Radiology  
Ehsan Samei, PhD, Duke University

11:30-12:15  Quality Control in Diagnostic Radiology: Why and How?  
Doug Pfeiffer, MS, Boulder Community Hospital

12:15-1:30  LUNCH

**IIb. ACR Accreditation**

1:30-2:15  Nuclear Medicine and PET  
Carolyn MacFarlane, MS, ACR

2:15-3:00  Computed Tomography  
Theresa Branham, BSRS, ACR

3:00-3:45  MRI and Breast MRI  
Ron Price, PhD, Vanderbilt University

3:45-4:14  BREAK

**IIc. Achieving the Balance**

4:15-5:00  Clinical Experience of Quality, Safety, and Achieving ACR Accreditation in DI  
Don Peck, PhD, Henry Ford Medical Group

5:00-5:45  Putting it all together – Panel Discussion and Q&A
### III. Therapy
*Session chair: Larry Marks, MD*

#### IIIa. Principles
- **8:00-8:45** Principles of Quality and Safety in Radiation Therapy
  - Bennedick Fraass, PhD, Cedar-Sinai Medical Center
- **8:45-9:15** Quality Control in Radiation Therapy: Why and How?
  - Todd Pawlicki, PhD, UC San Diego

#### IIIb. ACR Accreditation
- **9:15-10:00** ACR Accreditation of Radiation Therapy Operations
  - Brian Monzon, MBA, RT, ACR
- **10:00-10:30** BREAK

#### IIIc. Achieving the Balance
- **10:30-11:15** Clinical Experience of Quality, Safety, and Achieving ACR Accreditation in RT
  - Prabhakar Tripuraneni, MD, Scripps Clinic Torrey Pines
- **11:15-12:00** Putting it all together – Panel Discussion and Q&A
- **12:00** Symposium adjourn

### SEAAPM 2012 Annual Meeting

#### Session 1
- **1:00 – 1:15** Welcome and Introduction
  - Kevin Junck, PhD, Univ of Alabama at Birmingham Health System
- **1:15 – 1:45** A simple phantom to test multiple non IMRT treatment planning QA parameters
  - Ingrid Marshall, MS, PhD, DABR
  - Georgeton Cancer Center, Medical University of South Carolina
- **1:45 – 2:15** Clinical Quality Control Metrics in Radiation Oncology
  - Charles Able, MS, DABR, Wake Forest University Medical Center
- **2:15 – 2:45** Physics Aspects of the ACR MR Accreditation Program – the Good, the Bad, and the Ugly.
  - Wlad Sobol, PhD  University of Alabama at Birmingham
- **2:45 – 3:15** ACR Accreditation: A Regional Radiation Oncology Network’s Quest
  - Charles Able, MS, DABR and Alan deGuzman, PhD, DABR, Wake Forest University Medical Center
- **3:15 – 4:45** Student/Trainee Poster Session in Vendor Exhibit Area
- **5:00 - 10:00** SEAAPM 2012 Annual Night Out at Atlanta Aquarium
  - Aquarium open to SEAAPM attendees from 5pm-7pm
  - Dinner Buffet in AT&T Dolphin Tales Gallery 7pm -10pm
**Saturday, April 21**

**Session 2**

8:00 - 8:15  Welcome and Introduction

8:15 – 8:45  AAPM Initiatives, 2012 and beyond  
Gary Ezzell, PhD  AAPM President, Mayo Clinic Scottsdale

8:45 – 9:15  A Measure for Quality Assurance of Deformable Registration Fields in Clinical Settings  
Eduard Schreibmann, Emory University

9:15 - 9:45  BREAK in Vendor Exhibit Area

9:45 – 10:15  IMRT plan quality check: modeling the inter-patient organ dose sparing variation  
Lulin Yuan, PhD  Duke University Medical Center

10:15 – 10:45  Clinically Focused Physics Education:  
The Foundation for Image Quality and Effective Dose Management  
Perry Sprawls, Ph.D.  Emory University

10:45-11:00  Memorial Tributes

11:00-11:30  Chapter Awards and Wrap-Up

12:00 – 1pm  SEAAPM Business Meeting