

Accidents and Audits in Radiotherapy with an emphasis on Peer Review (Internal Auditing) in Medical Physics

J. Francisco Aguirre
UT MD Anderson Cancer Center
Houston, Texas

Objective of the course

To provide participants with the necessary knowledge and skill in order to:

1. Identify and manage risk in radiotherapy medical physics
2. Handle the documentation, reporting and reviewing of accidents and near-incidents
3. Develop procedures based on lessons learned
4. Perform regular internal peer review and auditing of their own radiotherapy medical physics practices.

The Subjects to be Covered

- The radiotherapy process
- Accidents in radiotherapy
- The risks of high technology
- Clinical consequences of radiotherapy
- Quality and safety
- AAPM safety profile assessment
- Reporting of accidents and incidents
- Process maps
- Failure modes and effects analysis
- Incident learning
- Checklists
- Preventive measures

The Subjects to be Covered

- Root cause analysis
- Statistical process control
- Quality management
- Safety culture
- Improvements on safety, an IAEA perspective
- IAEA audits and accident prevention
- Improvement of quality and safety, the clinician perspective
- Staffing levels, training, communication
- A QA program that includes safety
- Quality audit programs in the USA and other countries
- What to do when an accident occurs

Composition of the Group

- Engineer x
- MD x
- Rad. Oncologist x
- Hosp Admin/MBA x
- Medical Physicist x
- Maintenance x
- Administration x
- Clinical RT x
- Clinical Director x
- Medical Physics x
- National Program x

The Lecturers in this Course

- J. Francisco Aguirre

Senior Medical Physicist, retired from MDACC

Consultant in medical physics for the Memorial North West Hospital, Houston, TX

In charge of QA at the Accredited Calibration Dosimetry Laboratory at MDACC

International consultant in medical physics

The Lecturers in this Course

- Yakov Pipman

Emeritus Medical Physics Professor North
Shore University Hospital

- Alfred Siochi

Professor of Medical Physics West Virginia
University

The Lecturers in this Course

- Suzanne Evans MD, MPH

Assistant Professor of Therapeutic Radiology;
Assistant Chief and Medical Director of Rad.
Oncology, Lawrence Memorial Hospital

- Peter Dunscombe, Ph.D.

Professor Emeritus, Calgary Canada

The Lecturers in this Course

- Derek Brown PhD

Associate Clinical Professor, University of California at San Diego

- Sasa Mutic PhD

Professor Washington University School of Medicine

The Lecturers in this Course

- Todd Pawlicky PhD

Professor at University of California at San Diego, La Jolla CA

- Debbie Gilley MPA

IAEA officer within the Radiation Protection Section

The Lecturers in this Course

- Beadle MD

Professor Radiation Oncology UT MD
Anderson Cancer Center

- Paul Jursinic PhD

Director of Medical Physics West Michigan
Cancer Center