Teaching Session 5
Radiation Protection + Physics Committee
Accessible on-demand at any time

Session Title
Radiation Detection and Measurement

Chairperson
Tereza Kracmerova (Prague, Czech Republic)

Programme
29 min Alexandra Mackenzie (London, United Kingdom): Radiation Detectors - Which is the Right One for the Task?
29 min Robert Freudenberg (Dresden, Germany): The Importance of Quality Control and Instrumentation Performance
29 min Søren Holm (Copenhagen, Denmark): What and When to Measure? Establishing Standard Operating Procedures
3 min Session Summary by Chairperson

Educational Objectives
1. Which type of detector is the right detector for radioprotection measurement at nuclear medicine facility.
2. How to perform quality controls and the importance of these measurements.
3. How to prevent the incidents and accidents and how to set up the right standard operating procedures.

Summary
There is a growing diversity of both diagnostic and therapeutic applications in nuclear medicine. Given that nuclear medicine uses unsealed radioactive sources, in addition to considering radiation hazards from external irradiation where time distance and shielding apply, hazards associated with contamination, inhalation and ingestion must be also considered. In alignment with ALARA principles, to keep patients, staff, members of the public, and our environment safe from nuclear medicine radiation hazards, it is important is to know what, when and how to measure the correct radiation entity.

This session, which applies to all who work in nuclear medicine, will help participants to understand the basics of radiation detection and measurement; help them choose the appropriate detection device; and understand the proper operation of radiation detection and measurement instruments.

Key Words
Detectors, dose rate meters, dose meters, contamination, effective and equivalent doses, radiation protection