



Mini Course 1

Technologists Committee + Radiation Protection Committee

Wednesday, October 21, 08:00–09:00

Session Title

Radiation Protection in Patients Undergoing Radioligand Therapy

Chairpersons

Paolo Turco (Padova, Italy)

Ioannis Iakovou (Thessaloniki, Greece)

Programme

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| 08:00–08:20 | Sarah Schumann (Würzburg, Germany): Radiation Protection in Radioligand Therapy: Practical Principles for Technologists and Nurses |
| 08:20–08:40 | Paraskevi Exadaktylou (Thessaloniki, Greece): Optimising Patient and Staff Safety During [¹⁷⁷ Lu] Radioligand Therapy: From Theory to Clinical Workflow |
| 08:40–09:00 | Steven Stienaers (Leuven, Belgium): Managing Radiation Exposure and Contamination in Radioligand Therapy: Challenges and Practical Solutions |

Educational Objectives

1. Explain the fundamental principles of radiation protection applicable to therapeutic radioligand procedures.
2. Recognize how patient exposure differs in therapeutic settings compared to diagnostic imaging and the implications for technologists.
3. Describe practical strategies to optimize radiation safety for patients, including shielding selection and procedural planning.
4. Identify common challenges and mitigation techniques in managing external radiation levels and contamination control during radioligand therapy.

Summary

This lecture will focus on the unique aspects of radiation protection for patients receiving radioligand therapy. As radiopharmaceutical therapies such as [¹⁷⁷Lu] -based treatments become more widely used in clinical oncology, understanding how to minimise radiation risk while maintaining therapeutic effectiveness is essential. Participants will learn the principles of justification and optimization in therapeutic exposures, dose distribution patterns around patients, and practical methods to ensure safe handling and patient management. The session will integrate current evidence and practical guidance to support safe and effective radioligand therapy workflows.

Key Words

Radioligand Therapy; Radiation Protection; Patient Safety; Therapeutic Radiation Exposure; Justification and Optimisation; [¹⁷⁷Lu] -based Radiopharmaceuticals; Radiation Risk Management; Safe Patient Handling; Clinical Workflow; Nuclear Medicine Therapy; Evidence-Based Practice