



Mini Course Session 2

Technologists Committee

Wednesday, October 8, 09:05 – 10:05

Session Title

Adverse Events and Risk Management

Chairpersons

Luísa Roldão Pereira (Maidstone, United Kingdom)

Giorgio Testanera (London, United Kingdom)

Programme

- 09:05 – 09:25 **Pedro Costa** (Porto, Portugal): Building Safety from the Start: Embedding a Culture of Safety Through Training in Nuclear Medicine
- 09:25 – 09:45 **Julie Bolin** (Phoenix, United States of America): Unseen Hazards: Exploring Adverse Events in Nuclear Medicine and How to Prevent Them
- 09:45 – 10:05 **Kunthi Pathmaraj** (Melbourne, Australia): Navigating Risk in Nuclear Medicine: Insights and Lessons for Safer Practices

Educational Objectives

1. Understand the importance of embedding a culture of safety in Nuclear Medicine from the earliest stages of training, fostering safety-conscious attitudes and behaviours that can be sustained throughout their careers.
2. Understand the potential adverse events associated with nuclear medicine procedures and their impact on patient safety.
3. Learn about effective risk management strategies to prevent, identify, and mitigate adverse events and incidents in nuclear medicine departments.
4. Develop awareness of the importance of safety protocols, staff training, and patient communication in reducing risks during nuclear medicine procedures.

Summary

Adverse events in nuclear medicine can occur due to various factors, including issues with radiopharmaceutical production, communication barriers, side effects, equipment malfunction, or human error. From small to large scale, they can significantly impact patient and staff safety. To minimise these risks, it is crucial to implement effective risk management strategies. These strategies should involve well-established protocols for procedure authorisation, adequate radiation protection, comprehensive training for personnel, and regular equipment maintenance.

Most importantly, continuous monitoring of patient wellbeing and outcomes and timely reporting and analysis of adverse events are essential for identifying areas that need improvement. A proactive risk management approach can help reduce the likelihood of incidents and ensure swift responses if they occur. Common adverse events in nuclear medicine may include allergic reactions to radiopharmaceuticals, contamination, extravasation, or errors in calculating or dispensing doses, mislabelling of images, near misses in patient history, dosimetry that lead to overexposure, among others.



BARCELONA **OCTOBER 4-8, 2025**
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Creating a culture of safety within nuclear medicine departments is fundamental to reducing risks. This culture can be embedded early on by instilling safety-conscious attitudes and behaviours in trainees, ensuring that these values are carried throughout their careers. Open communication, continuous education, systems in place and regular safety assessments all contribute to a supportive, non-blame work environment that prioritises patient safety.

Key Words

Risk Management; Adverse Events; Radiation Protection; Patient Safety; Incidents