

## CTE 1

Technologist Committee / Australian and New Zealand Society of Nuclear Medicine (ANZSNM) / Canadian Association of Medical Radiation Technologists (CAMRT)

**Sunday, October 13, 08:15-09:45**

### Session Title

**Technologist Approach to Global Dose Optimization**

### Chairpersons

Luca Camoni (Brescia, Italy)

Pedro Fragoso Costa (Essen, Germany)

### Programme

08:10 - 08:30 Pedro Fragoso Costa (Essen, Germany): Dose Optimization Principles

08:30 - 08:50 Elizabeth A. Bailey (Sydney, Australia / ANZSNM): Dose Reference Levels in Nuclear Medicine

08:50 - 09:10 Tina M. Alden (Vancouver, Canada / CAMRT): PET/CT Dose Optimization and Occupational Exposure

09:10 - 09:30 Luca Camoni (Brescia, Italy): Cardiac Imaging Methods for Dose Reduction

### Educational Objectives

1. Understanding the role of the NMT in the dose optimization
2. Recognizing the potential applications of the methods for dose optimization
3. Understanding the Societies proposals and different approach for dose optimization in NM

### Summary

The Nuclear Medicine Technologists (NMTs) are involved in a wide range of tasks: image acquisition, processing, radiopharmaceutical dispensing, administration and patient care. In each of these procedural steps the protection of individuals against the harmful effects of ionizing radiation is a fundamental part of the process. Due to this reason, the NMTs carry the duty to be trained and knowledgeable on the topic of radiation protection and dose optimization. This topic must be revised and applied by the professionals involved in medical exposures. The EANM Technologist Committee (EANMTC) promoted a project that can revise and frame the knowledges and methods for dose optimization, involving the main NMTs societies worldwide.

The predicted outcomes from this project were to explore and describe the existing systems of dose optimization and to provide a comprehensive description of dose optimization methods, presented from a technologist point of view, aiming to inform and raise awareness amongst technologists. The project results were an initial article, published in the Journal of Nuclear Medicine Technologist, titled "Technologist Approach to Global Dose Optimization", that is the result of a consultation consortium involving the EANMTC, the Society of Nuclear Medicine and Molecular Imaging Technologist Section (SNMMI-TS), the Australian and New Zealand Society of Nuclear Medicine Technologists Special Interest Group (ANZSNM-TSIG) and the Canadian Association of Medical Radiation Technologists (CAMRT). An overview on main topics related to dose optimization is presented in this session. The first session opens with the basic principles and the regulations of dose optimization. The subsequent talk is focused on the dose reference levels in nuclear medicine. The last two presentations explore the PET/CT dose optimization, occupational exposure and cardiac imaging.

### Key Words

Radiation Safety, Scope of Practice, Competencies