



CME Session 10

Radiation Protection + Paediatrics Committee and Women's Empowerment Task Force

Tuesday, September 12, 09:45 – 11:15

Session Title

Radiation Protection in Motherhood and Childhood: What is so Special?

Chairpersons

Laura Evangelista (Padova, Italy)

Søren Holm (Copenhagen, Denmark)

Programme

09:45 – 10:05 **Uta Eberlein** (Würzburg, Germany): Radiobiological aspects to consider during pregnancy, neonates and small children

10:05 - 10:25 **Sigrid Leide-Svegborn** (Malmö, Sweden): Dilemmas of the pregnant or breastfeeding radiation worker, patient and carer

10:25 - 10:55 **Pietro Zuchetta** (Padua, Italy): Common diseases during childhood and the role of Nuclear Medicine

10:55 - 11:10 **Lídia Cunha** (Azores, Portugal): Family management in therapeutics and diagnostics of children

11:10 - 11:15 Wrap-up by the chairs

Educational Objectives

1. Understand the effects of ionizing radiation on embryos and foetuses.
2. Describe the main aspects to consider when a pregnant or breastfeeding woman is exposed to ionizing radiation. Explain why justification and optimization are overly crucial in such circumstances.
3. Describe the most common illnesses during childhood for which Nuclear Medicine has a unique approach.
4. Explain to the child's family or caregivers the details of any procedure being performed as well as any measures required to protect both the patient and family members.

Summary

This session will cover the specific risks associated with ionizing radiation exposure during fetal development, neonatal stages, and childhood. We will explore the radiobiological aspects underlying these risks and discuss strategies to prevent any harmful effects. We will also review the most relevant factors regarding breastfeeding and provide advice on appropriate actions to take in both diagnostic and therapeutic contexts.



Additionally, we will discuss the most common diseases that occur during childhood and the role of Nuclear Medicine in diagnosing, assessing therapeutic efficacy, and following up on these conditions. Finally, we will address the family context of a child who has undergone a diagnostic or therapeutic procedure, including the need for any household arrangements.

Key Words

Radiation Protection, Motherhood, Childhood, Justification, Optimisation