

IAEA Free Webinar

Radiation exposure of the pregnant and breastfeeding patients in nuclear medicine

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Administration of radiopharmaceuticals to a patient who is breastfeeding is generally avoided because the activity may be secreted into the breast milk, potentially exposing the infant to unnecessary radiation. When it is of vital importance for the patient to carry out the nuclear medicine procedure breastfeeding is often terminated, even though it is not necessary. Studies based on measurements have shown that the excretion of activity into the breast milk after administration of radiopharmaceuticals varies substantially between different substances. Thus recommendations on breastfeeding interruption should be specified for each radiopharmaceutical.

Nuclear medicine procedures on pregnant patients are normally not recommended unless it is of vital importance for the patient, e.g. lung perfusion or ventilation imaging for suspected pulmonary embolism. The foetus/embryo is irradiated externally from activity in maternal tissues and for some radiopharmaceuticals also internally, when the radionuclide cross the placenta and concentrate in specific organs or tissues, with significant fetal risks.

The aim of this webinar is to provide information on how to act when a breastfeeding or pregnant patient is referred to a nuclear medicine procedure as well as the management if it has been discovered after the administration of the radiopharmaceuticals that the patient was breastfeeding or pregnant.

Learning objectives

- 1. To be informed about the radiation exposure of the infant of a breastfeeding patient and the embryo/foetus of a pregnant patient after administration of radiopharmaceuticals.
- 2. To learn how to manage the pregnant patient in case of intentional or accidental administration of radiopharmaceuticals for a nuclear medicine procedure

3. To learn how to manage the breastfeeding patient that are referred to a nuclear medicine procedure and to get information on recommendations on breastfeeding interruption

Presenter



Sigrid Leide-Svegborn is associate professor at Lund University, Medical radiation physics, Department translational medicine, Sweden and senior medical physicist at Skåne university hospital in Malmö, Sweden. She is a member of the ICRP Task group "Radiation Dose to Patients from Radiopharmaceuticals". She has nearly 20 years of clinical experience as nuclear medicine physicist and approximately 40 publications concerning radiation

protection of the nuclear medicine patient and personnel.