

Radiation Risk Assessment and Risk Perception in Medical Imaging

Monday, 18 September 2017

14.00 – 15.30

Conference Room M7, M building

14.00 – 14.12	Introduction/Welcome	M. Abdel-Wahab, DIR-NAHU, P. Johnston, DIR-NSRW
14.12 – 14.24	Quantifying the radiation exposure in medical imaging: Dosimetry and Risk Assessment	H. Delis, IAEA/DMRP
14.24 – 14.36	Population dose from medical imaging	F. Shannoun, UNSCEAR
14.36 – 14.48	Evaluating and communicating risks and benefits in paediatric imaging	M. Perez, WHO
14.48 – 15.00	Facing the challenges: IAEA activities to protect the patients	D. Gilley, IAEA/NSRW
15.00 – 15.30	Questions and Discussion	

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Introduction/Welcome (M. Abdel-Wahab, DIR-NAHU, P. Johnston, DIR-NSRW)

The importance of medical imaging in patient management, noting that the (usually small) risk should never be considered in isolation from the overall benefit of medical imaging.

Quantifying the radiation exposure in medical imaging: Dosimetry and Risk Assessment (H. Delis, IAEA/DMRP)

Introduction to medical dosimetry. What do we measure in diagnostic radiology and how it relates to patient dose? Requirements for reliable dosimetry. How do the dose measurements relate to the (individual and population) risk? IAEA activities on dosimetry.

Population Dose from medical imaging (F. Shannoun, UNSCEAR)

Give an indication of the data from the UNSCEAR reports to highlight why imaging is so important in terms of population dose. Advertise new UNSCEAR data and motivate them to contribute in the future. Explain why this is much more than a collection of data.

Evaluating and communicating risks and benefits in paediatric imaging (M. Perez, WHO)

The use of ionizing radiation in paediatric imaging has rapidly increased globally in the past two decades: today CT is a valuable tool for assessing paediatric illness/ injury and image-guided interventional radiology may replace more complex paediatric surgery options. Health-care providers requesting and/or performing radiological imaging procedures in children have a shared responsibility to understand and communicate radiation risks to patients, parents and other caregivers to ensure a balanced benefit-risk dialogue which would support informed decision making in paediatric imaging.

Facing the challenges: IAEA activities to protect the patients (D. Gilley, IAEA/NSRW)

Radiation used in medicine is the balancing of the benefit and risk to the patients. IAEA promotes the principles of justification of and optimization of radiation used in medicine. Some activities include training, education and publications to benefit the member state, healthcare professional and the patient. Of particular interest is the imaging of children and preventing unnecessary exposure to pregnant women.

Questions and Discussion