Online dose data reporting for establishing and using diagnostic reference levels: experience of Australia, Sweden and Indonesia
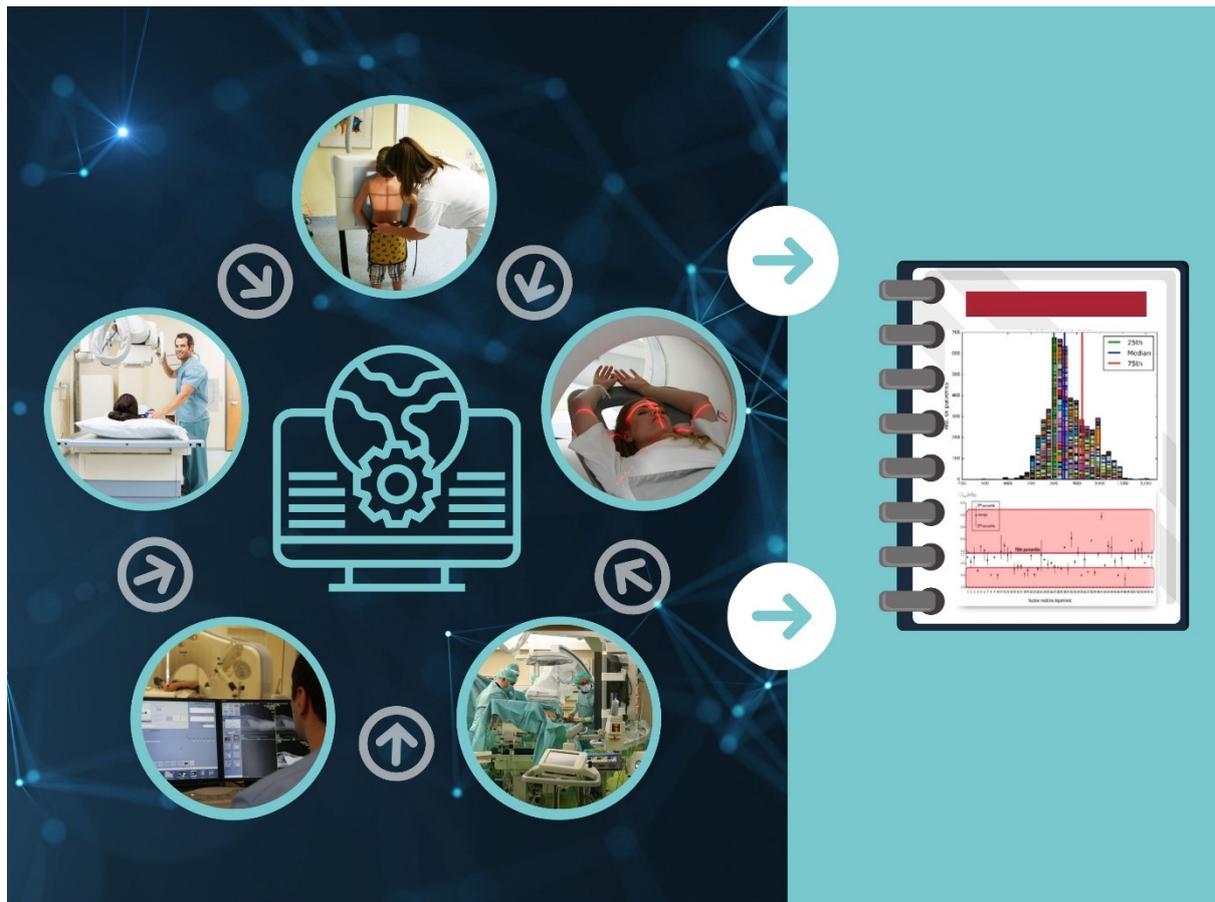
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Register →

Moderator: Jenia Vassileva (IAEA)

Presenters: Peter Thomas (Australia), Anja Almén (Sweden), Taruniyati Handayani (Indonesia)

Date of broadcast: 15 June 2021, 9:00 (Vienna, Austria)

About the webinar

Diagnostic reference levels (DRLs) are an important and practical tool for the optimisation of radiation protection of patients in medical imaging. They serve as an indicator for the medical imaging facilities of how the amount of radiation used to perform a given imaging task on their equipment compares with that used by other facilities for the same task.

The collection of patient radiation exposure data from medical imaging procedures in order to establish DRLs as well as the comparison of the local data with DRLs can be time-consuming tasks. Therefore, by providing tools to automate the collection and comparison of data reduces some of

the barriers to the adoption and implementation of DRLs and can facilitate ongoing review and revision of DRLs.

Several countries have established online, centralised, registries in which radiation exposure data can be recorded, reports comparing that data with DRLs generated, and the data analysed for review and revision of the national DRLs. The webinar will present the experience of Australia, Sweden, and Indonesia in developing, implementing, and utilising online registries to support the DRL process.

Learning objectives

1. To learn about the approaches adopted by different countries in establishing online registries for recording dose data from medical imaging procedures
2. To understand and recognise the benefits of a centralised register for the setting, and ongoing review and revision of DRLs
3. To understand the lessons learned and the experience gained in the presenting countries

About the presenters

Peter Thomas (Australia)

Dr Peter Thomas is presently the Director of the Medical Imaging Section at the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA). The Section runs the Australian National Diagnostic Reference Level Service, provides educational material and advice, contributes to codes and safety guides, and promotes optimal use of medical radiation. Dr Thomas has served as the chair of the UNSCEAR Expert Group on Medical Exposures since April 2019 and contributed to the most recent UNSCEAR report summarising the present global level of ionizing radiation exposures in medicine. Dr Thomas has a PhD in Chemistry from Monash University and has worked at ARPANSA since 2000.

Anja Almén (Sweden)

Dr Almén is a senior specialist at Swedish Radiation Safety Authority (SSM) with the responsibility to develop and promote radiological protection in medicine. Her work also includes the responsibility of the national framework for diagnostic reference levels. She lectures in different national settings and has been involved in training missions of the IAEA and international projects. She is appointed associate professor at Lund University. Dr Almén has carried out work as a medical physics expert and radiation protection expert in health care at all levels. She has been a member of the IAEA Radiation Safety Standards Committee (RASSC) and currently represents Sweden in the Nordic working group on medical exposures and the HERCA working group on medical

applications. Dr Almén is one of the Swedish representatives at UNSCEAR.

Taruniyati Handayani (Indonesia)

Ms Handayani has worked for BAPETEN, the nuclear regulatory body of Indonesia, since 1998. She is the Head of the Regulatory Assessment Center for Radiation Facilities. This Center functions as the internal technical support organization (TSO) to the main regulatory function, i.e. regulation development, license issuance, and inspection conduct. Since 2006, the Center has been responsible for developing a system to collect the radiation dose data of patients, which finally led to the establishment of an on-line registry system, namely Si-INTAN, or Information System for Patients' Dose Data.