Contribution ID : **98** Type : **not specified**

CCRI webinar: Advances in X-ray imaging dosimetry: calibration of X-ray multimeters

Thursday, 28 May 2026 14:00 (2:00)

Content

Consistent and reliable dosimetry in medical X ray imaging depends on well defined calibration and measurement procedures, making their critical assessment and harmonisation essential to ensure traceable and comparable results across laboratories and clinical practice. Building on earlier CCRI webinars addressing challenges and recent updates in X ray imaging dosimetry, this third webinar focuses on advances in the calibration of X ray multimeters (XMMs) used in medical imaging. The webinar will address calibration approaches for key quantities measured by XMMs beyond air kerma, including tube voltage, irradiation time, and half value layer (HVL). In addition, approaches for validating metrological traceability and providing supporting evidence for these calibration services will be discussed.

1. Education and training of radiation metrologist: Olivera CIRAJ BJELAC, IAEA and Marco ESPOSITO, ICTP . Introduction of ICTP university of Trieste Master of Advanced Studies in Medical Physics and Radiation Metrology
2. Air kerma and irradiation time: Miloš ŽIVANOVIĆ, VINS, Serbia . What changes when the calibrated item is XMM instead of an ionization chamber? · How should we define the irradiation time and how to obtain the reference value for it?
3. Tube voltage: Stefan POJTINGER, PTB, Germany · How to obtain a reference value for practical peak voltage (PPV)?
4. HVL: Aino TIETÄVÄINEN, STUK, Finland · How to measure reference HVL value and estimate the uncertainty?
5. Conclusions: Paula TOROI, STUK, Finland · The future of X-ray imaging dosimetry

The webinar is chaired by Massimo PINTO (ENEA, Italy)
Register: bipm-org.zoom.us/meeting/register/BkJU6yZpRXaV_lGaLHwCUg

Summary

Presenter(s) : OLIVERA CIRAJ BJELAC (IAEA, AUSTRIA), PAULA TOROI (STUK,RADIATION AND NUCLEAR SAFETY AUTHORITY, FINLAND), MICHELANGELO BIONDI (USL TOSCANA SUD-EST, ITALY), JONAS ANDERSSON (UMEA UNIVERSITY HOSPITAL, SWEDEN), OMAR MOHAMED NOOR (KING FAISAL SPECIALIST HOSPITAL AND RESEARCH CENTRE, SAUDI ARABIA)

Session Classification : not yet classified