

ICRP Committee 2 Meeting

6, 10, 11 November 2023 – Tokyo, Japan – In-person and virtual meeting

Update on Task Groups

TG36 Radiation Dose to Patients in Diagnostic Nuclear Medicine The objective is the update of ICRP Publication 128 developing absorbed organ dose coefficients (mGy/MBq) and Effective dose coefficients (mSv/MBq) for radiopharmaceuticals, depending with age and sex. The full draft is available and was submitted to reviewers of C2 and C3. The document was sent to C2 members after the meeting.

TG95 Internal Dose Coefficients OIR report series 2015-2022 (occupational intakes) have been completely published and OIR Data Viewer is available. EIR Reports are in progress now dealing with exposure of members of the public. EIR Part 1 with 29 elements was approved for publication. EIR Part 2 is in process, the draft will be submitted to MC in December 2023 (set of data for the Data Viewer on February 2024).

TG96 Computational Phantoms and Radiation Transport ICRP Publication 155 about Pediatric Specific Absorption Fractions (ASFs) is in press. The TG is formally closed.

TG103 Mesh-type Reference Computational Phantoms MRCPs for adults are available in Publication 145. ICRP Publication 156 about Pediatric Mesh Reference Computational Phantoms is in press. MRCP pregnant females are completed (Hanyang Univ.) for all fetal ages (8, 10, 15, 20, 25, 30, 35, 38 weeks).

TG112 Emergency Dosimetry The goal is the development of data sets for dosimetric estimations of internal and external exposures. The scenarios include high doses (stochastic effects and tissue reactions). Code McSEE is under development for MC simulations to assess external doses, draft version will be available in 2024. Two versions will be available, one version for a PC and another to be available in the ICRP server which will be redirected to Korean server (maintenance is an important issue).

TG113 Dose Coefficients for Diagnostic X-ray Imaging in Radiography, Computed Tomography (CT) scan and Fluoroscopy. MC simulations are carried out using voxel reference phantoms for well defined imaging protocols. The Radiography Report will be sent to MC at the beginning of 2024. Regarding CT, ICRP-representative scanner has been defined based on data of 13 CT scanners; Monte Carlo calculations for the ICRP scanner and 12 phantoms are completed. ICRP CT Dose calculator is developed.

Other Task Groups with C2 Members

TG122 Radiation Detriment Calculation Methodology (C1)

TG115 Risk and Dose Assessment for RP of Astronauts (C1)

TG118 RBE, Q, wR (C1)

TG119 Cardiovascular Diseases (C1)

TG120 RP for Radiation Emergencies and Malicious Events (C4)

TG121 Effects of Ionising Radiation Exposure in Offspring and Next Generations (C1)

TG125 Dosimetry for Non-human Biota

TG128 Individualisation and Stratification in Radiological Protection: Implications and Areas of Application

Other topics discussed during the meeting

- TG 125 on Ecosystem Services in Environmental Radiological Protection is under C4 and no C2 member is included. Next ICRP Recommendations should address dosimetry for animal and plants.
- The ICRP/EURADOS Training course on Biokinetic Modelling will be organized in France in 2024.
- A Quality-control of the EIR dose coefficients is planned counting with 2 Eurados members
- Next C2 online meeting will take place on 15 May 2024.
- Next C2 onsite meeting will be held in Munich on 4-6 November together with the organization of a national workshop (6-8 November).