International Commission on Radiological Protection

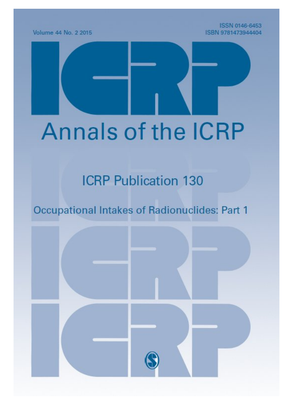
Task Group 95 : Internal Dose Coefficients

The objectives of this TG are to provide internal dose coefficients for the workers and members of the public. The deliverables are report series replacing the ICRP 30 and ICRP 56 series, and *Publications* 54 and 78 on individual monitoring.

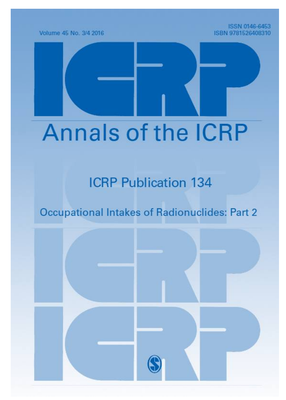
Achievements

In the last few years, effort was dedicated to the revision of the biokinetic models following inhalation and ingestion of different chemical forms of elements and their radioisotopes by workers. Revisions have also been made on many models for the systemic biokinetics of radionuclides absorbed to blood, making them more physiologically realistic representations of uptake and retention in organs and tissues and of excretion. These new biokinetic models are currently being published in the Occupational Intakes of Radionuclides (OIR) report series, together with new dose coefficients and data for the interpretation of bioassay measurements.

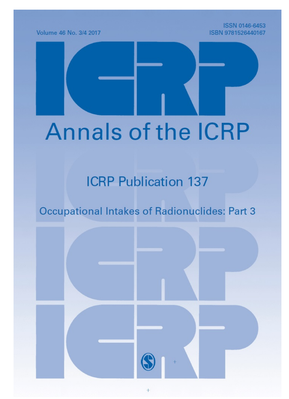
The first three reports of the OIR series have already been published. OIR Part 1 provides description on control of occupational exposures, biokinetic and dosimetric models, monitoring methods, monitoring programmes and retrospective dose assessment. OIR Parts 2 and 3 provide data on 28 individual elements and their radioisotopes, including biokinetic data and models. OIR Part 4 focusses on lanthanides and actinides elements and is currently in press. OIR Part 5 gives models and data for the remaining elements and is scheduled for publication in 2020.



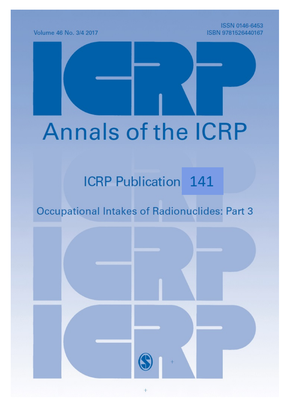
OIR Part 1
ICRP Publication 130 (2015)



OIR Part 2
ICRP Publication 134 (2016)



OIR Part 3
ICRP Publication 137 (2017)



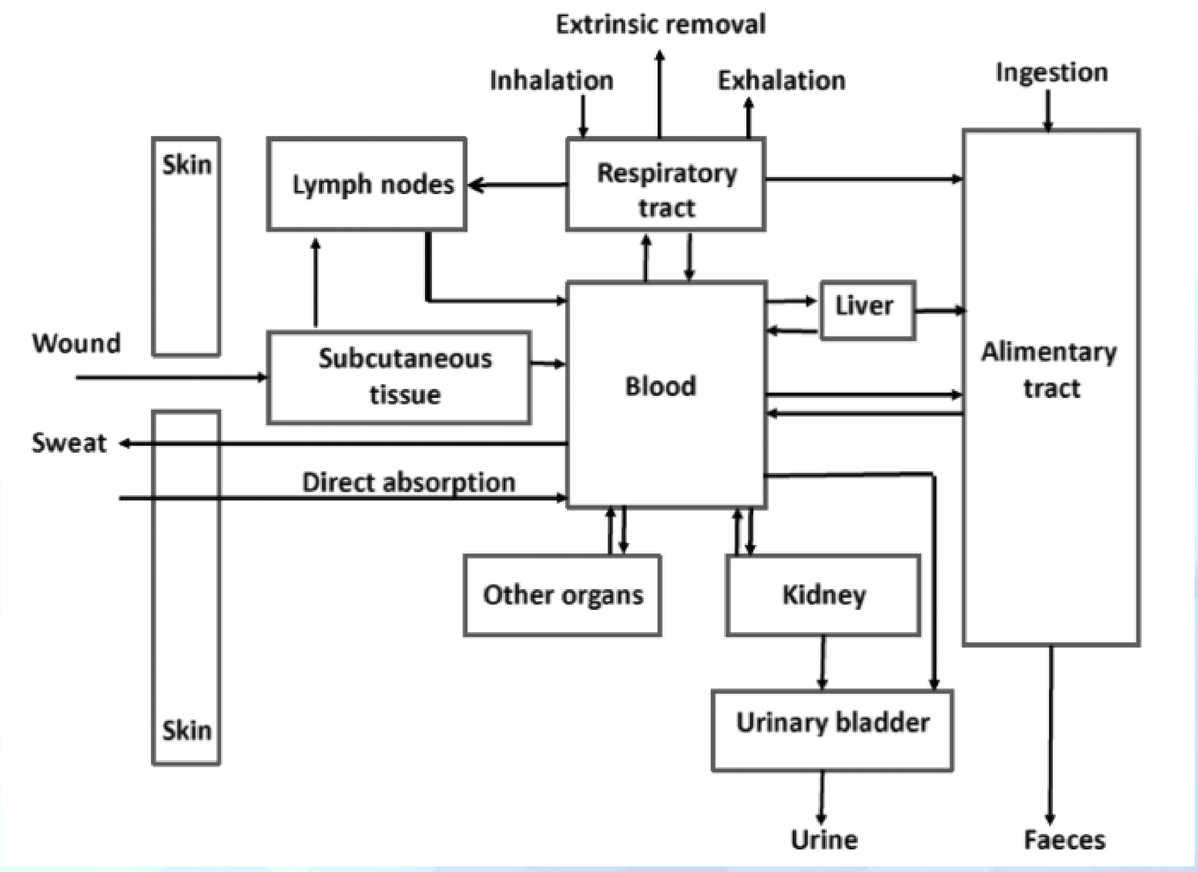
OIR Part 4
ICRP Publication 141 (In press)

Membership

Francois Paquet (Chair), IRSN, France
Michael R. Bailey, UK
Volodymyr Berkovsky, RPI and NRCRM, Ukraine
Luiz Bertelli*, LANL, USA
Eric Blanchardon, IRSN, France
Estelle Davesne*, IRSN, France
George Etherington*, PHE, UK
Tim Fell, **PHE**, UK
Augusto Giussani*, BfS, Germany
Demetrio Gregoratto*, PHE, UK
Stephanie Lamart*, CEA, France
Rich Leggett, ORNL, USA
James W Marsh*, PHE, France
Dunstana Melo*, Melohill Technology, USA
Dietmar Nosske*, Germany
Genadii Ratia*, RPI, Ukraine
Tracy Smith, PHE, UK
* Corresponding members

On-going work

In parallel to the efforts made for the provision of dose coefficients for the workers, the TG is currently revising the biokinetic and dosimetric models for the members of the public. The TG will adapt the models developed in the workers series to take into account specific chemical forms from the environment and different age groups. Similarly to the OIR Series, the TG will produce dose coefficients for easy calculation of dose after intake at different age, including nursing infant, embryo and fetus. Data and models are going to be published in the report series : “Dose coefficients for intakes of radionuclides by members of the public”, with the first report to be released in 2021.



ICRP Biokinetic model (ICRP 2015)