



Term of Reference Task Group on Tissue Reactions 2021-2024

Objective

To contribute in creating awareness about early and late effects of radiation in tissues and organs, considering the basis of ICRP Publ. 118 (2012) with the recommendations for the reduction of equivalent dose to the lens of the eye for occupational exposures (20 mSv, averaged over 5 years with the dose not exceeding 50 mSv in any year). Attention is also given to heart, cerebrovascular diseases, and diseases of arteries and veins, in considering that a dose as low as 0.5 Gy, reached in complex medical practice, as interventional and radiotherapy procedures, could affect the circulatory system.

To promote a wide exchange of knowledge, experience and points of view, at an international level and among the IRPA ASs, on progress updates on the TG subject as result of continuous dedicated research, including the aspect of the better understanding of radiation impact on the disease processes, and towards the use of absorbed dose, in place of equivalent dose, as the quantity in setting limits on tissue and organ doses to prevent tissues reactions, as introduced in ICRP Publ.147 (2021).

Membership

Chair: Marie Claire Cantone (AIRP, Italy)

Vice Chairs: Colin J. Martin (SRP, United Kingdom); Merce Ginjaume (SEPR, Spain)

Nominated members from Associated Societies of the different geographical areas: Africa, North and South America, Asia, Australia, and Europe: Michelin Severino (SAR, Argentina); George McGill (ARPS, Australia), Zoe Brady (ARPS, Australia); Jean-Marc Bordy (SFRP, France); Nobuyuki Hamada (JHPS, Japan); Sumi Yokoyama (JHPS, Japan); Mark C. Okeji (NigSRP, Nigeria); Lawrence Dauer (HPS, United States); Timothy Sebeela (SARPA, South Africa).

Key Tasks

To focus on literature and related views of the ASs on radiation tissue reactions within the tissues and organs of interest with particular emphasis on the lens of the eye and the circulatory system.

To analyse the pertinent application of workers dosimetry in different sectors from medicine, nuclear and industrial radiology, and evaluation of doses for exposed patients, in relation to tissue reactions.

To collate the view of the ASs in considering the use of absorbed dose for the dose limits of tissues and organs, and on the justification of different limits for workers and members of the public, as for skin and lens of the eye.

To collate and share information on eye dosimeters being developed and introduced in different countries and related publications for an improved knowledge exchange.

To collate information from studies of the effectiveness of devices for protection of the eye lens and prepare and share advice concerning on-going improvements.

To prepare a report on the TG findings, by beginning 2024, followed by publication in an appropriate open access journal.

Working Methods

The IRPA ASs will be asked to provide their views about the updated considerations that are introduced in the effects of radiation in tissues and organs, and related aspects, on the basis of a questionnaire developed by the TG.

The TG report will try to capture the statements and suggested approaches by the various countries to summarize the professional views while taking into consideration the different sectors of radiation protection.

The ASs will be invited to offer documents related to the TG thematic, they have produced directly or in cooperation with other organisations, to create a wide exchange of views through the IRPA website, and to provide these documents as free access publications.

The TG members will prepare a literature review of the topic that would be useful to disseminate the latest information.

The TG Chair will provide a written process report to the IRPA Executive Council at least annually, and interim status information could be provided on request.

Updated 2023 version of the ToR approved by the IRPA Executive Council on 17/12/21