

ICRP Committee 3 Meeting

September 1 - 3, 2014 – Paris, France

Participants:

VANO Eliseo (Spain) Chair
MILLER Donald (USA) Vice-Chair
REHANI Madan (Austria/USA) Secretary
ÅHLSTRÖM RIKLUND Katrine (Sweden)
APPLEGATE Kimberly (USA)
BOURGUIGNON Michel (France)
DAUER Lawrence (USA)
DEMETER Sandor (Canada)
KHONG PekLan (Hong Kong, China)
LOOSE Reinhard (Germany)
MARTIN Colin (UK)
ORTIZ LOPEZ Pedro (Spain)
SCALLIET Pierre (Belgium)
YONEKURA Yoshiharu (Japan)
YUE Baorong (China)

Apologies:

KANG Keon (South Korea)

Representatives of International Organizations

HOLMBERG Ola (IAEA)
PEREZ Maria Del Rosario (WHO)

Follow-up of points raised during the last ICRP Symposium in Abu Dhabi.

Several international organizations in particular IAEA and WHO are already engaged in some of these points, e.g. justification; unified referral criteria and support for adaptation of these at regional level, application of referral criteria; protection of the patient in the future (as earlier highlighted in Bonn); justification and optimization as part of the quality in medicine; the Bonn call-for-action and cooperation with other organizations and education and training of physicians, and approaches and policies in relation to the increased use of CT examinations and the associated doses. Further, guidance on radiological protection in emergency medicine (NCRP); dosimetry and protection in CT (already ICRP has Publications 87 and 102, and one on CBCT is almost complete); review definition of controlled area, occupational and patient protection in medicine; presentation of the results from epidemiological studies in CT; tracking of patient exposure and doses; cumulative patient doses (primarily IAEA, but ICRP is considering the topic of optimization for individuals and may cover some aspects here in addition to other strategies), uncertainties in the estimation of effective doses and organ doses (the TG on effective dose of ICRP will cover this). Standardization of patient dosimetry and dosimetric parameters from medical devices is being undertaken by AAPM and this is supposed to be an action by ICRU.

Chair's report and discussion.

A summary of the Main Commission meetings was presented. The role of C3 in the external relations of ICRP was summarized including details from IAEA, WHO, NCRP and the Working Party on Medical Exposures (Euratom). Observations about future actions and topics of interest (including suggestions for research) were presented, and the need for these to be updated during the Committee 3 annual meeting in Paris stated.

Progress in the TGs & WPs.

- **TG 87: Radiological protection in Ion Beam therapy:** Yoshiharu Yonekura informed C3 about the comments received through public consultation. There are more than 50 comments from 6 organizations or individuals. The document was favourably received. The TG will attend to these comments and will provide a finalized copy to C3 together with responses to the comments made.
- **TG 88: Radiological Protection in Cone Beam CT:** Madan Rehani informed C3 of the progress following the Abu Dhabi meeting. The updated version was posted on the ICRP website on 17 June with a deadline for final comments of 19 Sept 2014. After the deadline, comments will be addressed by the TG and the revised document will be provided to C3 for information and sent to the Main Commission (MC) for further action.
- **TG 89: Occupational Radiological Protection in Brachytherapy:** Lawrence Dauer informed C3 that an initial full draft for discussion by TG-89 members will be completed by the reconstituted TG-89 membership in the next 3-6 months (by March 2015). A finalized draft will be produced by June 2015 for review/comment. The aim is to incorporate necessary revisions before the next annual meeting of Committee 3 in 2015 (October).
- **WP: Justification: Framework for Justification in Medical Uses of Ionizing Radiation:** Katrine Åhlström Riklund presented the document. It is apparent that several organizations have produced documents or are preparing ones in the same field. The conclusion is that the ICRP justification document should take into account the material already published on issues regarding justification. A revised draft will be prepared (Sep-Oct 2014) and feedback obtained by Feb 2015. After the ECR 2015, the chair will circulate a second revision to TG members. A final revision will be carried out by the chair before passing on the document to C3 (Jul-Aug 2015).
- **TG36: Dose to patients from radiopharmaceuticals:** Katrine Åhlström Riklund presented the progress. A final version has been submitted to the Scientific Secretariat of ICRP. The work with dosimetric models for F18-Flutemetamol, F18-Florbetapir will be initiated during the next year. C3 is appreciative of the work done by the Emeritus member and honorary co-chair Soren Mattsson.
- **WP: Radiological Protection in Therapy with Radiopharmaceuticals:** Yoshiharu Yonekura presented the progress. In addition to the topics discussed previously, new aspects, including the assessment of individual dosimetry and radiobiology of alpha emitters were considered. Co-chairs (Yoshiharu Yonekura and Soren Mattsson) will assign each chapter to contributors based on the expertise of members and corresponding members. It is expected that the first draft will be produced before the next C3 meeting in October 2015.
- **WP: Occupational protection issues in interventional procedures (fluoroscopy guided):** Pedro Ortiz Lopez stated that a draft will be completed by April 2015 and submitted to Committee 3 for discussion at the 2015 meeting.
- **WP: Diagnostic reference levels for diagnostic and interventional imaging:** Eliseo Vano presented the status of the draft. A new version will be available by December 2014 and a final draft will be produced and sent to all the C3 members by February 2015. It is expected to have a final draft to be submitted to the MC for potential approval (and start the public consultation) during 2015.
- **TG: Effective dose:** Pedro Ortiz and Colin Martin presented the progress made. This is a TG chaired by J. Harrison (C2) with members of several ICRP Committees. Effective dose will be explained as a dose quantity linked to risk, but intended for the control of exposures for protection purposes and not risk assessment. It should be noted, though, that while radiation doses can be measured and effective doses calculated down to low doses, the associated risk is uncertain and inferred on the basis of assumptions regarding risk projection across populations and dose-response relationships. The plan is to prepare an initial report to be circulated for comment during spring / early summer 2015 and have a revised version ready for the October meeting of ICRP.

- **WP: Individual human sensitivity to ionizing radiations:** Michel Bourguignon presented the progress of the WP. The title of the WP has been changed from “Individual human sensitivity to ionizing radiation” to “Radiation protection in medicine related to individual radiosusceptibility” to limit the scope of the project to medical exposures and to clarify the issues (the word “radiosensitivity” has been replaced by the word “radiosusceptibility” because radiosensitivity has a limited and precise meaning). The first draft is expected at the end of Sept 2014. There will be a prevision of a draft document to be discussed during the annual meeting of C3 (Oct 2015).
- **Radiation and your patient- a guide for medical practitioner:** Sandor Demeter presented the current draft of the educational document entitled "Radiation And Patient Protection: A Guide For Health Care Practitioners". It was generally supported that the document be targeted to primary care health care providers and be written in a lay medical language while keeping definitions as per the ICRP glossary.

Educational Slides.

The draft slides provided for P 113, 117, 120 and 121 shall .be reviewed by at least one critical reviewer of C3.

Future Topics

It was decided to keep these topics under review

- a. Framework for optimization in medical imaging in particular for individual patients.
- b. Proposal for standardization of dose metric (quantities and units) for medical imaging equipment, displays and radiation dose analysis software.
- c. Protection of eye lens, cardiovascular and brain: Implications for medicine of the ICRP Publication 118.

The next meeting of the Committee will take place in Seoul, Korea, in October 2015, in conjunction with the third ICRP International Symposium on the System of Radiological Protection.