



Radiation Health and Safety Advisory Council ('Council')

Meeting Minutes

- Date:** 21 October 2020
- Time:** 9.00 am – 11.00 pm (AEST)
- Location:** via Microsoft Teams
- Chair:** Dr Roger Allison
- Members:** Dr Carl-Magnus Larsson, Mr Keith Baldry, Prof Pam Sykes, Ms Melissa Holzberger, Prof Adele Green, Dr Peter Karamoskos, A/Prof Melanie Taylor, Dr Jane Canestra, Dr Trevor Wheatley, Mr Jim Hondros, Mr Stephen Newbery.
- Apologies:** Dr Hugh Heggie
- Secretariat:** Mr James Wheaton, Mr Ben Paritsky.
- Observers:** Mr Jim Scott, A/Prof Ivan Williams, Ms Tone Doyle, Dr Peter Thomas, Mr Ryan Hemsley, Mr Nathan Wahl (all from ARPANSA, Mr Thomas Ashby (Department of Health)).

1. Meeting Open

The Chair welcomed the Council and thanked contributors to the paper provided. Declarations of interest were noted.

2. Medical Imaging

The Chair introduced the issue of radiation exposure from medical imaging and noted Council's concern, although not alarm, given the increasing use of medical imaging in society.

It was suggested that the key task of the medical imaging working group would be to identify potential areas of concern to bring back to the Council for further consideration. Council would then need to identify the areas where ARPANSA could be active, noting that education and training are always worthy.

Particular items were discussed in relation to medical imaging, including computed tomography (CT) scans which result in higher doses of radiation; the requests of patients as a driver of demand for medical imaging; the business incentives for radiologists to conduct procedures including key performance indicators; and the incentives for public hospitals to reduce costs.

The Council noted that it need only be concerned where people receive radiation doses above what is medically justified and should not therefore use 'effective collective dose' as a marker of concern. It was therefore noted it may be best to divide patient cohort data into age and cumulative dose bands.

Further research or information gathering by the medical imaging working group could focus on the imaging procedures that have lower clinical benefit. Challenges in gathering data were discussed, including the benefit of separating proposed actions that are technical versus lobbying and influencing activities. It was also noted that diagnostic reference levels (DRLs) are focused on particular types of scans only and limited to voluntary contributors, which does not provide data on cumulative exposure from multiple types of imaging procedures. Patient data on cumulative exposure is sparse. Medicare data only covers the number of procedures and does not capture all procedures at public hospital sites.

ARPANSA provided an update on its current activities, noting a limited ability to coordinate all issues on medical radiation, although acknowledging the importance of a greater focus on data capture and analysis. Council also queried whether ARPANSA had data on the uptake of initiatives such as the Radiation Protection of the Patient (RPOP) module.

It was suggested that items that the Council medical imaging working group could further consider are: a review of data within existing CT image sets to determine what doses are being delivered for stratification via age, gender and region (metro, rural and remote); a review of literature to determine what doses are being delivered to patients by different anatomical regions; a review of dose rates being used and frequency of imaging procedures; a review of auditing or other change mechanisms; and contacting individual hospitals to discuss optimising imaging equipment for paediatrics.

It was noted that international comparisons of data will have national biases and cultural norms on imaging type and frequency (DRL comparisons between countries which relate to the national peer dose for a given procedure are similar).

Terms of reference for the medical imaging working group were discussed, resolving that the group:

- Consider the evidence base and available data for the medical imaging issues that Council has discussed, and report back to Council.
- Consider the issues in the context of where ARPANSA can have the most influence and consider the input of jurisdictional Councils (via ARPANSA).
- Draft a recommendation to the CEO if further work is identified that can be done with other parties to improve radiation safety in medical imaging.

3. Meeting Close

The meeting was closed at 11.18 a.m.