



16 August 2021

Dr Carl-Magnus Larsson  
Chief Executive Officer  
Australian Radiation Protection and Nuclear Safety Agency (ARPANSA)  
619 Lower Plenty Road  
YALLAMBIE  
VIC 3085

**Re: Radiation exposure from increased medical imaging in Australia**

Dear Dr Larsson,

The Radiation Health and Safety Advisory Council (Council) has considered the issue of radiation exposure to the Australian public from medical imaging procedures, given their rapid increase in use over recent years. The Council discussed multiple possible drivers for the increase, and the role that ARPANSA could play in advancing research into medical imaging safety in Australia.

The Council agreed, while acknowledging multiple possible drivers for medical imaging, that the radiation safety principle of optimisation and the appropriate clinical use of imaging should be the focus for any further consideration of radiation safety in medical imaging, and health and safety factors alone should remain the justification for reducing collective dose from imaging procedures.

Based on the [Bettering the Evaluation and Care of Health](#) (BEACH) study and the fact that lumbar sacral spine imaging accounts for 10 per cent of all computed tomography (CT) scans, the Council considered ARPANSA analysis of all CT and lumbar sacral spine CTs which shows that rates are declining in the youngest age groups but are increasing markedly in the oldest age groups. The Council also considered decadal trends in diagnostic reference level (DRL) data supplied by ARPANSA, which demonstrated declining individual dose from relevant procedures.



The Council recommends that further research be done to provide an evidence base for further consideration. To achieve this, the Council further recommends:

1. ARPANSA contact the Australian Institute of Health and Welfare (AIHW) to seek assistance and collaboration to assemble and analyse data on **repeated** imaging of individuals.
2. A literature review of justification and or overuse of imaging be undertaken either in-house or externally to avoid duplication of research.
3. ARPANSA liaise with the Australian Commission on Safety and Quality in Healthcare (ACSQHC) and share information concerning imaging justification, noting that the administration of the Diagnostic Imaging Accreditation Scheme (DIAS) is being transferred from the Department of Health to the ACSQHC.

The Council agreed to conclude its work on this issue until further data is available to consider.

Kind regards

A handwritten signature in black ink, appearing to read 'R Allison'.

**Dr Roger Allison (Chair)**