



Radiation Health Committee



Lower Plenty Road, Yallambie, Victoria, 3085
Tel: 03 9433 2211 Fax: 03 9433 2353

an advisory body to the CEO of ARPANSA, established under the ARPANS Act 1998
Secretariat: ARPANSA, Standards Development & Committee Support Section,

Email: arpansa.secretariat@health.gov.au
Web: www.arpansa.gov.au

Statement on use of units of measure in prescribing and administering nuclear medicines - November 2002

At the August 2002 meeting of the Radiation Health Committee, an incident involving the misadministration of a nuclear medicine dose in a NSW hospital was raised. The incident was reported to the Committee by the NSW Radiation Advisory Committee and appears to have arisen due to confusion between the non-standard unit, the curie (Ci), and the standard international radiation unit, the becquerel (Bq). The incident resulted in a person being administered a dose which was 27 times the prescribed amount. Specifically, the person was administered 6 GBq of a radiopharmaceutical rather than the intended 6 mCi.

Although the curie is still an Australian “legal additional derived unit of measurement” under the *National Measurement Regulations 1999*, it is not a Standard International Unit. However, it is understood that it is still common for nuclear medicine specialists to prescribe doses in millicuries, and that some dose calibrators measure doses in millicuries.

To avoid the risk of incidents such as that mentioned above in the future, the Radiation Health Committee recommends that such systemic problems be managed by requiring nuclear medicine departments to:

- only use the Standard International Unit for activity, the becquerel, in prescribing and administering nuclear medicines
- develop and implement appropriate checking and re-checking procedures to ensure the correct dose will be administered.

The Committee informed the Heads of Health Departments in all jurisdictions of this problem and of the Committee’s recommendations, and requested that the matter be raised with all nuclear medicine departments.

The Committee also informed the Australian and New Zealand Society of Nuclear Medicine, the Australian and New Zealand Association of Physicians in Nuclear Medicine, the Royal Australian and New Zealand College of Radiologists and the Royal Australasian College of Physicians of the issue.