

Review of the IAEA/WHO/PAHO

International conference on radiation protection in medicine

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International Conference on radiation protection in medicine: *Achieving change in practice*

This meeting was the third in a series of IAEA international conferences on radiation protection in medicine. The first was held in Malaga (2001), the second in Bonn (2012). Objectives of the third conference (Vienna, 2017) included review of the approach to implementation of the *Bonn Call-for-Action*, a global roadmap which aims to strengthen radiation safety culture in health care. Objectives of the Vienna 2017 conference also included harmonisation of activities between international organisations and other stakeholders, as well as allowing stakeholders to look ahead at new developments impacting on radiation protection in medicine.

Context

The use of ionising radiation in medicine is well established, and has resulted in tremendous benefit in diagnosing and treating diseases. An estimated 10 million people per day undergo diagnostic and therapeutic procedures involving exposure to ionising radiation. While the medical benefits are unquestionable, there is growing evidence of unintended and unnecessary use of radiation in medicine. Given the known deleterious effects on human tissue, it is important to implement appropriate radiation safety measures when ionising radiation is used for diagnosis, intervention, therapy or research, to protect medical staff and the public.

IAEA/WHO *Bonn Call-for-Action* to strengthen radiation protection for patients and staff

- Action 1: Enhance the implementation of the principle of justification
- Action 2: Enhance the implementation of the principle of optimisation of protection and safety
- Action 3: Strengthen manufacturers' role in contributing to the overall safety regime
- Action 4: Strengthen radiation protection education and training of health professionals
- Action 5: Shape and promote a strategic research agenda for radiation protection in medicine
- Action 6: Increase availability of improved global information on medical exposures and occupational exposures in medicine
- Action 7: Improve prevention of medical radiation incidents and accidents
- Action 8: Strengthen radiation safety culture in health care
- Action 9: Foster an improved radiation benefit-risk dialogue
- Action 10: Strengthen the implementation of safety requirements globally

Conclusions

534 delegates attended the conference, from 97 countries around the world. They reviewed the implementation of actions agreed in Bonn in 2012 and concluded that more training, more awareness, and more effective implementation of regulations are needed to better protect patients and health professionals from undue radiation exposure related to medical procedures.

There was agreement that efforts should focus on monitoring to reduce radiation exposure of tissue outside the targeted area in radiotherapy patients, eye protection from radiation in interventional procedures, and implementation of clinical imaging guidelines.

Bonn Call-for-Action Radiation Protection Toolkit

In follow-up to the conference, the IAEA is developing an online toolkit to develop radiation protection in medicine. It will combine new and existing tools such as guidance materials, international standards and electronic databases to assist health authorities, regulatory bodies and health professionals. It is hoped that this online depository will be used by clinicians and decision-makers, and lead to improved knowledge about the safe use of radiation in medicine.