

BY JENIA VASSILEVA AND OLA HOLMBERG, INTERNATIONAL ATOMIC ENERGY AGENCY, VIENNA, AUSTRIA

# IAEA's actions to make radiology safer for patients around the world

The International Atomic Energy Agency (IAEA) leads the development of international standards for radiation protection and safety and the actions on implementation of these standards in its 170 Member States. The International Action Plan for the Radiological Protection of Patients, approved soon after the first strategic International Conference in 2001 in Malaga, Spain, initiated an international collaboration to strengthen radiation protection of patients in medical uses of ionising radiation.



The next important step was the issuing of the Bonn Call for Action – a joint statement by IAEA and WHO, agreed at the International Conference on Radiation Protection in Medicine – Setting the Scene for the Next Decade, held in 2012 in Bonn, Germany. It highlights ten actions and related sub-actions for strengthening radiation protection in medicine. The Bonn Call for Action is the guiding document for the IAEA activities in the medical field, which include developing guiding documents, information and training

resources for health professionals, e-learning, webinars, posters and leaflets in many languages, all freely available from the specialised Radiation Protection of Patients website (<http://rpop.iaea.org>). The IAEA also offers training and knowledge exchange for health professionals, with a focus on less developed countries.

In response to the Bonn Call for Action, many international organisations launched their own specific actions, including the EuroSafe Imaging Call for Action by the European Society of Radiology (ESR).

Developments around the world since the Bonn conference were reviewed in the International Conference – Achieving Change in Practice, held in 2017 in Vienna. Representatives of 97 countries and 16 international organisations agreed that intensified work be conducted in response to the Bonn Call for Action, highlighting the importance of partnerships between national governments, civil society, international agencies, researchers, educators, institutions and professional associations.

An outcome from the 2017 conference was the decision to produce an 'Implementation toolkit' for the Bonn Call for Action that is under development by the IAEA. This will be a specialised webpage organised around the 10 actions and will provide links to useful tools and text-material developed by different organisations, training material, and many other resources that will help in implementing each specific call. This will be a living document, updated with the latest available approaches. Inter-

national and professional societies have an important role to play in the development and promotion of the Bonn Call for Action Implementation Toolkit.

A Coffee & Talk session on March 1, 13:30–14:30, Room Coffee & Talk 2, will discuss the importance of taking a team approach and developing a safety culture in the imaging department. The session will involve three radiology teams from Croatia, Bulgaria and Latvia, who will present their good practices in building effective teams for achieving optimum results in medical imaging. The team from Croatia will focus on justification based on shared decision-making by a referring medical practitioner and a radiologist, who use referral guidelines for imaging to select the most appropriate exam for the patient. Patients also need to be informed about the expected benefits, risks and limitations of the proposed radiological procedure, as well as the consequences of not undergoing the procedure. Once the procedure has been deemed necessary, the next step is to perform it with the lowest possible dose to obtain the required diagnostic information.

Optimisation includes selection of equipment and associated software, setting a robust maintenance and quality assurance programme, and performing regular patient dose assessment using diagnostic reference levels (DRLs). Imaging protocols need to be optimised: the team from Bulgaria will describe how the radiologists, radiographers and medical physicists work as a team, each making a unique contri-

## Coffee & Talk Session

Friday, March 1, 13:30–14:30, Coffee & Talk 2

C 17 Team approach and safety culture in the imaging department

- » **Keynote Lecture:**  
K.-O. Lövblad; Geneva/CH
- » **Chairperson's introduction**  
J.N. Vassileva; Vienna/AT
- » **Performing the appropriate procedure: whose role is it?**  
B. Brkljačić; Zagreb/HR
- » **Performing procedure appropriately: whose role is it?**  
D. Kostova-Lefterova; Sofia/BG
- » **Improving patient safety through learning from errors**  
L. Sembele; Riga/LV
- » **Open forum discussion: How to build an effective team to achieve best results?**

*This session is part of the EuroSafe Imaging campaign.*

but ion towards optimised imaging. Finally, the paediatric hospital team from Latvia will explain how they make use of the departmental incident reporting system for learning from errors and improving safety culture and patient care.

The IAEA supports the development of team culture by providing training to teams in the framework of the IAEA Technical cooperation programme, with the aim of making justification and optimisation an integral part of daily medical practice.

The cooperation between IAEA, WHO and the professional societies is a good model to be followed at national level. By joining efforts and combining their competence, different stakeholders can improve quality and safety in medical imaging for the benefit of patients.

*Jenia Vassileva, PhD, is a diagnostic medical physicist working as a radiation protection specialist in the Radiation Protection of Patients Unit of the IAEA. She is the technical officer for the IAEA TC projects in the field of medical radiation protection in Europe.*

*Ola Holmberg, PhD, is the Head of Radiation Protection of Patients Unit of the IAEA. He was the scientific secretary for the International Conferences on Radiation Protection in Medicine in 2012 in Bonn and in 2017 in Vienna.*



## ELEVATING RADIOLOGY

GE Healthcare and ESR

Partnering on Artificial Intelligence



## AI & ANALYTICS THEATER – Booth 303 - X3

Today's topics: February 28<sup>th</sup> 2019

- 10:15 am Pneumothorax detection and localization in X-Ray images: why annotation matters
- 11:00 am AI presentation delivered by Intel
- 12:15 pm Lunch and learn preview: annotation & AI in imaging
- 01:00 pm AI presentation delivered by Amazon Web Services
- 01:30 pm Ins and outs of doing annotations so AI works
- 02:30 pm AI automated plan, scan, and diagnose to provide exam consistency in MR
- 03:30 pm Preventative for no-shows enabled by AI

Plus more topics! To get a complete list of today's talks in the theater, please go to [gehealthcare.com/ai-theater](http://gehealthcare.com/ai-theater)

*This theater is made possible thanks to collaborations with our partners*

