Online monitoring of patient exposure in diagnostic and interventional radiology: Experience of Spain



Moderator: Jenia Vassileva (IAEA)

Presenters: José Miguel Fernández, Eliseo Vañó and Roberto Sánchez (Hospital Clínico San Carlos. Madrid, Spain)

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About the webinar

In year 2002, the concept of on-line monitoring of patient exposure in diagnostic and interventional radiology was proposed and developed by the medical physics group of the San Carlos University Hospital in Madrid, Spain. Since then, the evolution in X-ray imaging and information technology as well as the standardization of digital communication protocols have facilitated the development of the current version of the dose management system Dose On Line and Quality Assurance (DOLQA) System.

The DOLQA System is currently in use by several regional public health systems in Spain. It collects and manages patient dose information from diagnostic radiology (mammography and computed tomography), interventional radiology and cardiology and nuclear medicine from a population of 6.8 million inhabitants.

The webinar will present the experience in developing, implementing and utilizing DOLQA System to collect and analyse data in a hospital or in a number of hospital connected to the system. The discussions will provide insights into the benefits and challenges as well as the experiences on how online dose data managing systems can support countries in tracking information on a patient's radiation dose during diagnosis and treatment.

Learning objectives:

- 1. To learn about the benefits of the online dose monitoring system and to have a better understanding on possible challenges during its deployment.
- 2. To learn how to extract the relevant information for individual patients, imaging systems or medical facilities.
- 3. To learn and gather information on how to use the large data collected by the system, and how to implement the review based on available advanced analytical options of the system.

Presenters:

Dr. José Miguel Fernández is the Head of the Medical Physics Service at the Hospital Clínico San Carlos in Madrid, Spain. He is a member of the Article 31 EURATOM Group of Experts to the European Commission and member of the Spanish delegation to the United Nations Scientific Committee on the Effects of Atomic Radiation.

Dr. Eliseo Vañó is an Emeritus Professor at Complutense University of Madrid and the leader of the Medical Physics Research Group at Hospital Clínico San Carlos. He is also an Emeritus member of the International Commission on Radiological Protection and a member of task groups of the European Society of Radiology.

Dr. Roberto Sánchez is a Medical Physicist at the Hospital Clínico San Carlos of Madrid and Associated Professor at the Complutense University of Madrid.

