Patient exposure and dose tracking (IAEA Smart Card/SmartRadTrack project)

A meeting was held by the IAEA on 23-25 September 2013 on the above subject. Further details about the purpose of meeting are available at>>>>

It was clear that lot has happened since 2008-2009 when actions on this project were made public by the IAEA. There has been clarification between exposure tracking (history of radiological examinations an individual patient has undergone) and dose tracking (when doses are tracked). The technology has advanced to an extent that tracking of exposures and dose is a reality in many countries now, mostly at regional (part of the country) level. Example of one such experience has been published as case reports of patients where tracking was able to strengthen process of justification or optimization or both. Further, templates for implementing tracking in countries at different levels have been provided. It has been emphasized that use of permanent identifier of an individual, valid for life is crucial to tracking. Accordingly, a survey conducted by the IAEA in 40 countries was made public through a publication. A prototype of the smart card was developed in collaboration with a manufacturer and information made available. What do referring medical practitioners think about tracking in terms of its potential to support their action in decision making? A survey conducted among practitioners from 28 countries was published that indicated support for tracking.

A joint position statement of the IAEA Patient Exposure Tracking that was endorsed by the World Health Organization (WHO), the U.S. Food and Drug Administration (FDA), the European Society of Radiology (ESR), the International Organization for Medical Physics (IOMP), the International Society of Radiographers and Radiological Technologists (ISRRT) and the Conference of Radiation Control Program Directors (CRCPD) of USA, and issued by the IAEA in April 2012.

With these in background, the deliberations in the meeting showed that tracking mechanisms have been in place for some time in Estonia, Finland, Malta and Sweden; while countries like Algeria, Bulgaria, Egypt, Macedonia, The Netherlands, Romania, South Korea and Spain are making progress.

Following, way forward was decided in meeting:

1. To encourage global acceptance of lexicon for naming and grouping of radiological examinations
2. Develop mechanisms to facilitate process of procedure and dose tracking including extraction, transfer, archiving, analysis and use of relevant information
3. Encourage development of mechanisms to track examinations and dose performed between separate health care environments e.g. cross border
4. To develop consensus on dose metrics that should be collected to achieve the ultimate goal of describing patient dose from an specific examination for an individual patient
5. Explore the relevance and value of cumulative dose determination for an individual patient
6. Develop a consensus on methods for determining cumulative risk for an individual patient for all examinations that a patient has undergone
7. Use individual patient exposure and dose tracking data as a basis for improvements in radiation protection, such as equipment development, examination performance and improvement in clinical practice and public health.
8. Develop training material for patient exposure and dose tracking
9. Develop strategies to communicate, inform and educate patients and other stakeholders
10. Foster collaboration among stakeholders at the local, regional, national and international levels

Link:
A New Way of Thinking About Patient Radiation Exposure