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# Regulatory viewpoint of the occupational radiation protection in medicine: weaknesses and challenges in latin america.

The use of ionizing radiations and exposure to them involves risks. The improvement and modernization of health services has increased the use of radionuclides and radiation-emitting equipment for diagnostic, therapeutic and interventional purposes, benefiting millions of people worldwide and increase the number of medical procedures and professionals involved, reason why, an adequate occupational radiological protection program is essential, to guarantee the safe and acceptable use of ionizing radiation. On the other hands, the dynamics of the technical and technological progress, which occurs at amazing speed, constitutes a significant challenge, not only for the personnel directly involved in the practice, but also for the personnel of the Regulatory Authority, which need to verify the correct implementations of the safety standards and others good practices, internationally recognized. This paper offers a regulatory view of different aspects of occupational radiological protection in medicine and several areas for improvement, covering both, infrastructure and technical requirements. Additionally, in this work, significant aspects to be taken into account for establishing an adequate occupational radiological control are addressed. Some examples of non-compliance with national regulations and international recommendations in the Latin American region that are currently important challenges to overcome, for various health services with a view to the continuous improvement of this particular, are provided too, among these:
• insufficient human resources appropriately qualified at the facilities.
• RP equipment obsolete and, on occasions, insufficient.
• nonexistence of effective cooperation relationships and coordination among regulatory authorities and with the other institutions involved in the operational radiological protection at the national level.
• inefficient mechanisms for upgrading of the regulations in a context of sustained and vertiginous technical and technological advances and lack of implementations.
• limited scope of dosimetric services and non-compliance with the international standards.
• nonexistence of quality management systems in the dosimetric services.
• radiation protection Programs inappropriate or not formally implemented at the institutions. insufficient size or nonexistence of infrastructures on metrology.
• inexistence of an education and training strategy for staff of the RA.
• non- follow up of ORPAS missions requested by the countries.
• the staff of regulatory bodies don't have the training necessary to ensure that optimization of protection and safety is appropriately applied and enforced.
• non-follow up actions when dose constrains are exceeded.

Many of the deviations mentioned above have been identified through the ORPAS missions, which it has been promoted actively the compliance with the requirements and regulation all over the world.
As a conclusion of the work, the most important aspects to be considered in the improvement of occupational radiological protection are highlighted.

REFERENCIAS

1. International Atomic Energy Agency, Programa Nacional de Protección Radiológica en las Exposiciones Médicas, IAEA- TECDOC-1710/S, Viena, (2013).
2. International Atomic Energy Agency, Radiation Protection and Safety of Radiation Sources: International Basic Safety Standards, General Safety Requirements Part 3 IAEA, Vienna, (2014).
3. International Atomic Energy Agency, Occupational Radiation Protection, General Safety Guide, No. GSG-7., Vienna, 2018.

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