

**International Conference on Occupational Radiation Protection:
Strengthening Radiation Protection of Workers –Twenty Years of Progress
and the Way Forward**

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Occupational Radiation Protection in Diagnostic and Therapeutic Nuclear Medicine

The use of radiation in medical applications continues to increase worldwide and has a direct implication for radiation protection of medical staff performing or assisting in medical examinations using ionizing radiation sources. In nuclear medicine, staff is exposed to the risk of external exposure when using radiopharmaceuticals and when performing conventional radiological examinations, and to the risk of contamination when handling unsealed sources.

In Morocco, the number of nuclear medicine centers has increased to 25, working with new imaging technologies, including 13 PET CT, 10 SPECT CT, 15 Gammas cameras, and 44 Radioactive Iodine (I-131) therapy rooms. This technological advance and the increased use of these new techniques require that specific radiation safety regulations be implemented to protect nuclear medicine personnel, patients, and the environment. In both diagnostic and therapeutic nuclear medicine, the patient becomes a source of radiation, not only for himself but also for staff, carers, and the public. All categories of staff members involved in nuclear medicine must have good knowledge of radiation protection as it applies to specific situations. In addition, established working procedures, availability, and use of proper protective equipment, as well as an efficient monitoring program, are all critical components in ensuring that medical workers are appropriately and acceptably protected.

Many structured recommendations from various academic societies and international organizations, mainly the IAEA, highlight important issues of radiation protection of workers in nuclear medicine departments taking into consideration the technical developments in the field. This article discusses important principles to ensure the radiation protection of workers in daily nuclear medicine practices, useful references, important issues, and future perspectives.

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