

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

Contribution ID: 35

Type: **Poster**

Occupational Radiation Protection Awareness among the Lebanese Health Professionals

This study aims to investigate the occupational radiation protection (ORP) awareness among occupationally exposed health professionals (OEHP) in Lebanon.

A cross-sectional study has been conducted in December 2020 by the Department of Authorization, Inspection and Regulation - Lebanese Atomic Energy Commission (DAIR-LAEC) in 55 (out of 170) Lebanese health facilities, by filling out an anonymous questionnaire. The survey was prepared following the requirements of IAEA Radiation Protection and Safety of Radiation Sources: International Basic Safety Standards, No. GSR Part 3, and IAEA Occupational Radiation Protection, No. GSG-7. The survey consisted of four parts and a total of 40 questions including demographics of OEHP participating in the study, requirement of ORP training, level of knowledge about ORP and OEHP contribution to protection and safety for themselves and for others at work. 232 OEHP participated in the survey with 9 doctors, 32 nurses, 179 radiographers/technologists, 7 medical physicists and 24 radiation protection officers. 49% were female and the majority (34%) had ≤ 30 years old. The majority of the respondents are postgraduate (72%), working in private hospitals (43%), in diagnostic radiology departments (72%), with 11-20 years of experience (32%).

Almost all the participants know that ORP training is mandatory (96%). However, only 75% of them received a formal training on ORP and 12% (out of the 75%) responded that the information provided during the training were not efficient to raise their awareness on ORP.

Meanwhile, the majority of the respondents (86%) knows that cancer is among the main risks associated with ionizing radiation. However, only 71%, 46% and 38% knows that skin burns, nausea and vomiting and hair lost, respectively, at very high doses are also potential detriments of ionizing radiation. Unexpectedly, 6% and 4% of the participants think that magnetic resonance imaging and ultrasound, respectively, involve the use of ionizing radiation. Meanwhile, 47%, 59% and 90% of the respondents know that justification, optimization and dose limitation, respectively, are the general principles of radiation protection for OEHP. Still, 53% think that wearing a dosimeter is one of those principles. Furthermore, 9% of the respondents does not know the annual effective dose limits for OEHP over the age of 18 years. Moreover, 73%, 85% and 72% of the respondents acknowledge that time, distance and shielding, respectively, should be used to reduce their occupational exposures. However, 24% think that wearing a dosimeter could also reduce their doses. Furthermore, only 81% of the respondents always wear their whole body dosimeters. However, 46% of the participants does not know the dose they received last year. Finally, only 78% of the respondents perform a regular health surveillance checks at the hospital where they work.

The present study demonstrates an insufficient/low level of knowledge and awareness on ORP among OEHP in Lebanon. Therefore, it is important to develop and implement a national strategy for education and training. In the absence of specialized institutes and/or organizations for education and training in ORP in the country, the DAIR-LAEC is aiming to provide such training.

Speakers email

c.rizik@cnrs.edu.lb

Speakers affiliation

Lebanese Atomic Energy Commission, National Council for Scientific Research

Name of Member State/Organization

Member State

Primary authors: Dr RIZK, Chadia (Lebanese Atomic Energy Commission, National Council for Scientific Research); Mr OTHMAN, Ahmad Firas (Lebanese Atomic Energy Commission, National Council for Scientific Research); Dr ROUMIEH, Mohamad (Lebanese Atomic Energy Commission, National Council for Scientific Research)

Presenter: Dr RIZK, Chadia (Lebanese Atomic Energy Commission, National Council for Scientific Research)

Session Classification: Session 11. Education and training in occupational radiation protection

Track Classification: 12. Education and training in occupational radiation protection