



# EDUCATION AND TRAINING IN RADIATION PROTECTION IN ALBANIA: CURRENT CHALLENGES



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## INTRODUCTION

This study provides a short-summarized information about the education and training in radiation protection in Albania for employees who are exposed to ionizing radiation.

Based on the law "On Protection from Ionizing Radiation ", No. 8025, date 09.11.1995, Albania has approved the training program in the field of protection from ionizing since 2011 by Commission of Radiation Protection.

The Institute of Applied Nuclear Physics, University of Tirana is one of the basic syllabus training providers who trains about 100 employees per year which are exposed to various fields of application, medical workers (radiology, nuclear medicine), industry (non- destruction test, oil well, mining), dentistry (dentist, doctor), etc.

By Albania regulation employees who use sources of ionizing radiation and who have received the relevant training in radiation protection must undergo retraining courses after a period of five years.

This is necessary to refresh the knowledge acquired in the previous training course, as well as to familiarize themselves with possible new developments in the field of radiation protection. In more than ten years' experience of basic syllabus training some gaps, weaknesses and challenges have been encountered.



## CONTENT OF BASIC SYLLABUS IN RADIATION PROTECTION

This program contains these main topics:  
(for 10 hours)

- ✓ Introduction ionizing radiation and radioactive decay;
- ✓ Interaction of radiation with matter;
- ✓ Dosimetric concepts;
- ✓ Applications of ionizing radiation;
- ✓ Health effects of ionizing radiation;
- ✓ Environmental effects of ionizing radiation;
- ✓ System of radiation protection;
- ✓ Radiation protection in medical exposure;
- ✓ Radiation and dose measurements;
- ✓ Practical use of measurement equipment;



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Complexity of radiation science, physics and biology concepts: Workers with different education backgrounds try to understand dose limit, protection principles with shielding principles.

Training involves quantities dosimetric concepts which are difficult to understand for non - specialist or for workers with high school.

During the short test after training questions with alternatives are more efficient compared explaining questions.

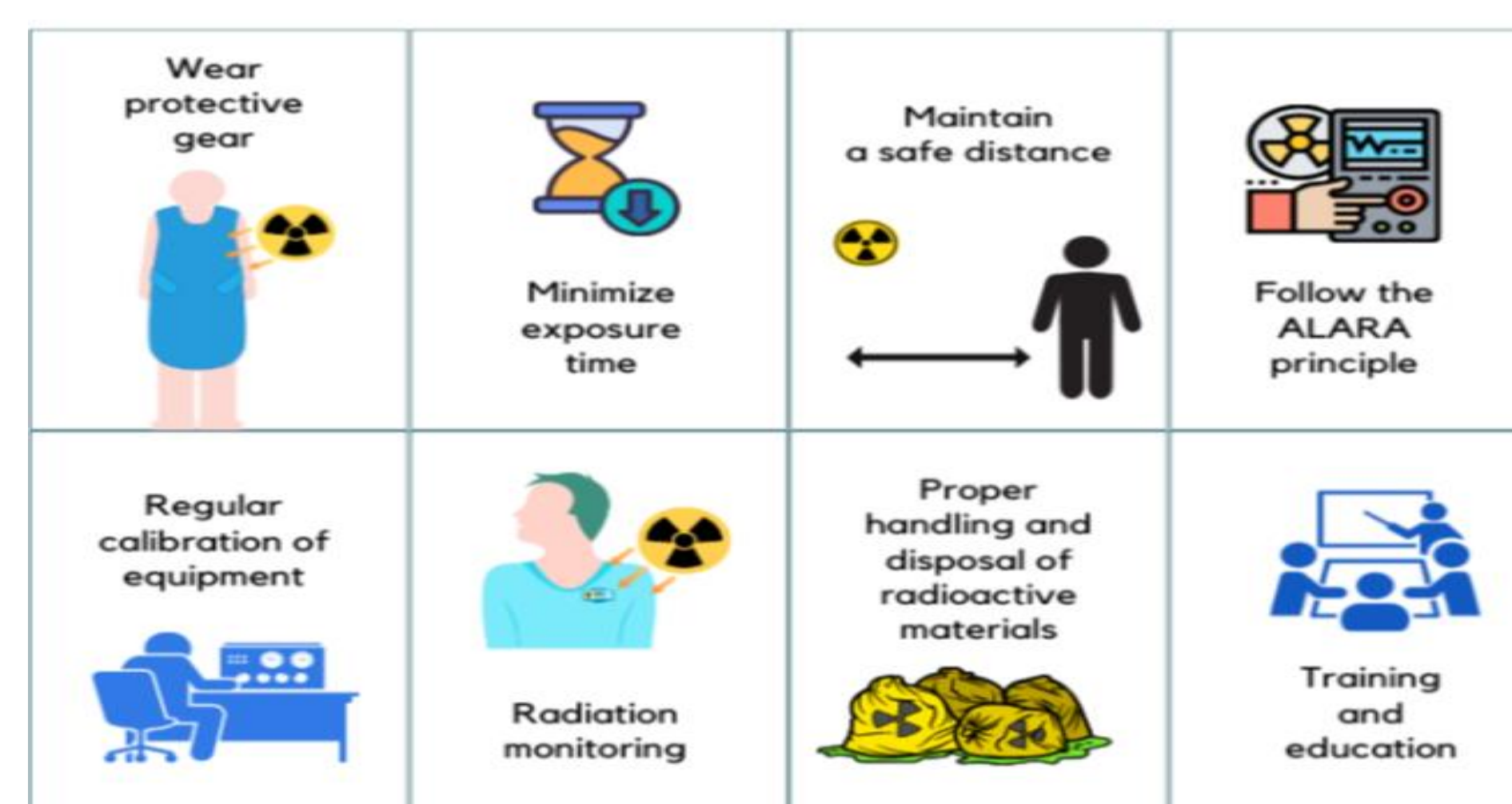
Practical with theoretical learning is another weakness because training more focus on theoretical aspects but lacks sufficient hands -on practice with monitoring equipment.



## DISCUSSION

Lack of on-the-job training, good knowledge of radiation equipment and emergency response. Weakest point comes to lack of awareness and safety culture. Most of the exposer workers may not fully understand radiation risks or the importance of protection measures, to protect themselves and patients too.

### Best practices in radiation protection for healthcare workers



## CONCLUSIONS LESSON LEARNED

Of the problems encountered during these years of training:

- Focusing on the theoretical part where trainees have difficulties.
- For the trainees, the most useful thing has been the length of the practical time. During the practical part, the trainees understood the main concepts of defense better. Also, the group discussions were more effective.

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