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SURVEY ON RADIO-ONCOLOGISTS CLASSIFICATION IN EXTERNAL RADIOTHERAPY

ERPAN meeting, 2019-06-06

Arturo Pérez Mulas

2 | Question

There is a current trend in Spain leading towards considering the Oncologist as non-exposed workers, based on the doses expected. There is quite an argument raging on this topic; on one side, it is clear that Radio-oncologists doses are below detection thresholds usually, but on the other hand, the fact that they may hold responsibility regarding the proper functioning on the facility (as “Supervisors”, according to Spanish regulations), makes it hard to declassify them.

We were wondering what the status of this topic in your countries is.

Are radiation Oncologists working in teletherapy (not in brachytherapy) considered exposed workers, or are they regarded as public?

3 | The Spanish case

Royal-Decree 783-2001

Exposed workers: those persons subject to exposure due to their work, deriving from the practices referred to in this present Regulation, which could entail doses greater than any of the dose limits for members of the public.

Article 20. Classification of exposed workers

For radiological monitoring and control purposes, the title-holder of the practice, or when applicable, the external company shall be responsible for the classification of the exposed workers into two categories:

Category A: Shall belong to this category those persons who given the conditions in which they perform their job, could receive an effective dose that exceeds 6 mSv per official year, or an equivalent dose that exceeds 3/10ths of the limits for equivalent doses for the crystalline lens, the skin and extremities, as is established in paragraph 2 of Article 9.

Category B: Shall belong to this category those persons who given the conditions in which they perform their job, are very unlikely to receive effective doses that exceed 6 mSv per official year, or 3/10ths of the equivalent dose limits for the crystalline lens, the skin and extremities, as is established in paragraph 2 of Article 9.

4 | Slovenia

In Slovenia radiation oncologists are classified as exposed workers (category B).

Although they usually receive doses below detection there is still potential (although small) risk of high exposure as well as, as you mentioned, their responsibility.

Dejan Žontar

5 | Czech Republic

In the Czech Republic radiation Oncologists in teletherapy are exposed workers.

Jan Kropacek

6 | Ireland

In Ireland the classification of a worker as an exposed worker is an output of the risk assessment which examines this persons involvement in the practice of concern. If the person in question is “liable to receive” a radiation dose in excess of an annual dose limit for a member for the public arising from normal operating procedures and reasonable foreseeable incidents and accidents, they should be then be classified as an exposed worker.

Hugh Synnott

7 | Switzerland

In Switzerland, according to Art. 51 of the Radiological Protection Ordinance, occupationally exposed workers are defined as persons who (i) may exceed the dose limit of 1 mSv per year for the public due to their occupational activities or (ii) work at least once a week in controlled or supervised areas. Since both conditions apply for radiation oncologists they are considered occupationally exposed and must wear a personal dosimeter. We are fully aware that under normal operating conditions in teletherapy doses of radiation oncologists are below the detection thresholds. However, since they are working in areas with a potentially increased radiation risk, we believe that the dosimetry requirement for radiation oncologists is justified.

Reto Treier, Dr. sc. ETH Zürich

8 | Summary & discussion

	Spain	Slovenia	Czech Republic	Ireland	Switzerland
Classification	Exposed	Exposed	Exposed	?	Exposed
Criteria	"Could" > 1 mSv	Potential risk Responsibility		"Liable" > 1 mSv	"May" > 1 mSv Controlled area

- Common "fuzzy" criterion: "may" receive doses above limit to public
- Specific "concrete" criterion: work in controlled or supervised area...
but:
 - is this a "circular criterion"?
 - is the treatment room a "controlled area"?

"Controlled area: is the area in which:

1°. There is the possibility of receiving an effective dose greater than 6 mSv per official year, or an equivalent dose greater than 3/10ths of the equivalent dose limits for the crystalline lens, the skin and extremities [...]

- Missing or not clearly defined: training, responsibilities...

9 | Slovenia (2) – food for thought

You pointed out a very nice question which is not related only to “radiotherapy”. Namely, I am working for the Slovenian Nuclear Safety Administration which is not involved in the control of medical practices in Slovenia but your question is related to numerous other practices in industry.

Namely, does the legislation link “needed knowledge of a worker to handle radiation protection” with “his/her dose” which is received during normal or potential exposure? If yes, then there is a trouble. “His/her” dose during a normal operation can be one of the parameters determining that a person should be considered to be “fit for a duty” and to have “appropriate education and training”. But this is not the only parameter.

Namely, in an nuclear installation an operator in a control room is not considered to be “occupationally exposed worker” so he/she does not even wear dosimeter during a normal operation of an NPP. But he/she should have knowledge regarding proper functioning of a facility. If and only if he/she is required to go into a controlled area then it is required to have dosimeter(s).