



Organisation of radioprotection in healthcare establishments

Changing practices and findings in Île de France

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Conduct of the survey

March 1999

Creation of a multidisciplinary working group in the Île de France region.

Decision to launch a survey in Île de France based on the following main items:

- medical surveillance of exposed personnel and appropriate dosimetric monitoring,
- effective application of regulatory operational dosimetry,
- mode of classification of personnel and definition of work zones.

March 2000

Presentation of the survey and the problems related to radioprotection in the healthcare sector to:

- occupational health physicians,
 - qualified experts,
 - members of CHSCTs⁽⁴⁾,
 - medical advisers,
 - regional work inspectors,
- at a meeting held at *Institut Curie* and organised by the DRTEFP IDF.

June 2000 to September 2000

Dispatch of questionnaires:

- via occupational medicine departments,
- directly to healthcare establishments with more than 200 employees.

Each questionnaire for each establishment had to be completed jointly by the occupational health physician and the qualified expert.

Return of 181 questionnaires (181 establishments monitored by 110 occupational health physicians).

Practical difficulties in application of radioprotection

- Insufficient workplace risk evaluation.
- Questionable capacity of the qualified expert to take action: lack of time, lack of resources, difficulties in relation to medical personnel (self-employed, no training in radioprotection apart from radiologists).
- Lack of training reported by occupational health physicians preventing them from fully exerting their advisory role.



Results

• Characteristics of the establishments returning the questionnaires: 181 establishments, including 101 private establishments.

• The category A classification of personnel is essentially based on the concept of allocation to a controlled zone, which is defined very broadly (the concept of monitored zone is rarely used).

• The controlled zone is usually defined as a geographically distinct unit (156 out of 181 replies), but 36 establishments report the existence of rooms in which only part of the room is classified as a controlled zone; finally, 63 establishments perform preliminary dosimetric measurements.

• The qualified expert: 15% of establishments do not have a radioprotection unit; the time devoted to radioprotection is impossible to evaluate.

• Occupational health physicians: 60% consider that they do not have sufficient training in radioprotection and consequently rely on the qualified expert.

• The difficulty of surveillance of medical personnel is essentially related to their self-employed status, while an increasing number of procedures require an interventional technique.

• Dosimetry:

- Chest dosimeters are very widely used, but an average of 10% of dosimeters attributed are not worn.
- Complementary dosimetry, bracelet rather than ring.

Departments	Number of departments	Number of departments using bracelets	Number of departments using rings
<i>In vitro</i> nuclear medicine	3	0	0
Diagnostic nuclear medicine	6	5	1
Diagnostic & therapeutic nucl. med.	5	3	2
Brachytherapy	5	3	2
Interventional radiology	55	18*	2

* 12 of these establishments are not concerned by either brachytherapy or nuclear medicine.

- Urinary and/or whole body counter radiotoxicological surveillance is performed by 12 of the 14 establishments with diagnostic and/or therapeutic nuclear medicine departments.

- Regulatory operational dosimetry had not been set up at the time of the survey (but individual electronic dosimetry was used in 2 establishments for isolated actions or experimentally).

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⁽²⁾DRTEFP IDF: Direction régionale du travail et de la formation professionnelle d'Île-de-France (French Regional Directorate for Labour and occupational training for the Île de France region)

⁽³⁾IRSN: Institut de radioprotection et de sûreté nucléaire (French Institute for radioprotection and nuclear safety)

⁽⁴⁾CHSCT: Comité d'hygiène, de sécurité et des conditions de travail (French Health, safety and working conditions committee)