

**Keynote address by Professor Agnès Buzyn  
Chairman of the Board of Directors,  
Institut de Radioprotection et de Sûreté Nucléaire (IRSN)**

**at the IAEA Scientific Forum  
Cancer in Developing Countries – Facing the challenges,  
Session 6: Safe and appropriate use of new radiation medicine technology in new surroundings**

**Vienna, 22 September 2010**

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As you all know, the use of ionizing radiation in medicine is increasing worldwide.

This trend participates to a better rate of cure since half of cancers are now cured in western countries. However we have to admit that we observe some undesirable consequences in terms of safety.

Among those consequences, there are accidents. Over the last 3 decades, at least 3000 patients have been affected by radiotherapy accidents or incidents, sometimes leading to death.

Of course these accidents have a huge cost but furthermore they may also affect the acceptability of this therapy among the population.

Ionizing radiation covers radiotherapy but also imaging techniques necessary reach the right diagnosis.

In this setting, the access to imaging techniques such as X rays or CT scans is of course of great benefit to the population but leads to a constant increase of medical exposures to radiation all over the world. For example, in France, medical exposure to radiations per year and per person is now overstepping the natural exposure.

Thus, for all these reasons, safety issues are now front line of the preoccupations of regulators and technical safety organizations.

How can we help to increase safety culture when a new program is built?

One way is to answer to several questions which are the basis of radiation protection:

- Is the medical procedure properly justified for one individual patient?
- Is the protection of the patient properly optimized in my center?
- Am I able to prevent and detect a medical incident or accident?

One has to admit that this radiation protection culture is not very developed in the medical field compared to other nuclear fields, since the impact of an accident is not as dramatic in terms of consequences as Chernobyl. However we all have to work on it.

To open the discussion in the panel, what about the 4 following challenges?

- Can we involve professional societies to improve knowledge on radiation protection?
- Can we involve manufacturers in preventing accidents?
- Can we involve patients with the right information of radiation benefit and risks?

And I would finish by a more political issue...

Since the health care system of each country influences the access to care, the liberty of prescription, the type of reimbursement of acts, the elaboration of the sanitary mapping for equipments,

- My last question will be: Can we involve our governments? By reminding them that their political choices will have a direct impact on radiation protection.

I thank you for your attention and hope that there is now enough time for an open discussion.