

# A safe radiotherapy in Belgium?

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## Summary

In this article a brief overview is presented on the status quo of the organisation of radiotherapeutic treatments in various hospitals in Belgium, the communication of mistakes by

physicians and/or hospitals or press members and suggestions how to overcome and improve any communication of errors by Belgian physicians and/or hospitals in future.

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## Introduction

Last summer, a short press release regarding an incident in the radiotherapy department of the academic hospital in Ghent triggered a deep crisis in the world of radiotherapy. So far, accidents occurred regularly, quite metronomically in other countries, notably UK and France (Glasgow, Epinal, Lyon, Tours, etc) but not in Belgium. All kinds of explanations were given to this state of affairs: insufficiencies in infrastructure, shortage in specialised staff (arising from shortsighted *numerus clausus* policies), lack of specific training of professionals in quality issues, etc.

Ofcourse, Belgium was shielded, or so it was believed, from such accidents by its high level of equipment (7 linear accelerators.10<sup>6</sup> inhabitants, versus barely 4.10<sup>6</sup> in UK), its excellent training (5 years of full time training for radiation oncologists, in comparison to the patchy French radiotherapy training), and its awareness for quality issues. Belgium, indeed, has been the cradle of European Quality Assurance programs applied to radiotherapy and oncology, through specific programs supported by EORTC and the European Commission.<sup>1,2,3</sup>

It is quite ironical that the recent press campaign on the Ghent accident developed around an academic department of European dimension, a reference centre for the development of IMRT, internationally recognised and respected for its scientific value. This unfortunate crisis has been completely out of proportion, considering the actual events. Also, the incident was about one year old, when the Gent department quickly and adequately took correcting measures. Yet the media moved on, obviously heated up by previous accidents of much higher severity in neighbouring countries.

## For the medical sector, a number of lessons have to be learnt from this crisis:

*1. Accidents in medicine always have been existing. The difference with the past is that they are now widely published*

Ethical and deontological considerations make it mandatory to inform patients, with all necessary details, about deviations regarding their treatment. Ombudsmen have been appointed in all hospitals to deal, amongst other things, with medical errors. However, the culture of communication around medical errors is insufficiently developed, Belgium being no exception. Also, the channels through which incidents should be reported are not well known by the professionals.

The consequence (or the cause?) is that professionals are not trained in the methodology of communicating with regard to accidents. A bad communication creates frustration in the patient's mind, being tempted to explore alternate channels to obtain information regarding his/her treatment (press, lawyers, etc). Bad communication is also the major cause of legal actions taken by patients against doctors.<sup>4</sup> Very often, accidents are reported to the media by the patients themselves, or by their relatives. Medical injury is, indeed, causing extreme shock, anxiety and distrust in patients.<sup>5</sup>

Principles and practice in medical accident communication is already well developed in some countries (Australia, Canada); efforts along the same line should be made in Belgium<sup>1</sup>.

*2. Accidents also happen in well-organised structures*

It is a crucial point for professionals to understand that a good quality assurance program in a well

organised department does *not* eradicate accidents; it only reduces their likelihood. Much like car driving, respecting road signs, speed limits and other regulations, decreases the risk of car accidents, but does not prevent accidents. Medicine in general, and radiotherapy in particular, is a complex process, with a long series of intertwined steps, falling under the responsibility of various staff groups (nurses, physicians, physicists, engineers, informaticians). The coordination of these steps is a very complicated task, requiring a lot of time and energy from the staff. The best that can be achieved is reducing the probability of accidents to a very low level, but complete 'accident-proof' organisations do not exist (best safety organisations today can be found in the nuclear sector and in the air transportation business; a lot can be learnt from these sectors).

As in the industry, time and energy devoted to safety is often regarded as a low priority. Investments in production are usually financially rewarding, whereas investments in safety simply cost to the department, without immediate gain in production. In the real world, investments in safety are too often triggered by accidents. This is not satisfactory. To let accidents happen, and afterwards trying to fix the failing process or equipment, is not acceptable to patients. A *preventive* safety policy must be developed, as opposed to a simple reactive policy. Accident prevention must move to the top of the agenda in all departments.

### 3. Total quality management needs to be implemented in all departments

Two Belgian radiotherapy departments already have an ISO certification (in Turnhout and Namur), and more will have this certificate in the future. A complete atlas of quality assurance programs in Belgian\* radiotherapy does not exist, but important elements of these programs are applied in all departments, with a strong culture of internal and external auditing.

For example, in 2004, the college of radiotherapy performed an external audit in breast cancer treatment. All departments volunteered to take part in the audit, and the results demonstrated an excellent organisational level in all departments.<sup>6</sup> There is also a strong culture of external audits in medical physics. For example, an independent team of physicists, to ensure adequate calibration, verifies all new linear accelerators. Other pieces of equipment, crucial to the quality of radiotherapy, are also regularly audited, like CT scanners for planning 3-dimensional dose-

calculation, treatment planning software, simulators, etc. Few European countries have developed such an extensive program of quality control of equipment. But as mentioned earlier, this does not eradicate accidents; it just reduces their likelihood.

### 4. The Belgian regulatory authority in radioprotection must behave more professionally

The Ghent incident came to be known to the press through an unfortunate release of classified information by an agent of AFCN/FANC (Agence Fédérale de Contrôle Nucléaire/Federale Agentschap voor Nucleaire Controle). That is hardly acceptable to the professionals!

The AFCN/FANC only recently has been established by law (law of 15.04.1994). Its mission (articles 14 to 27 of the above-mentioned law) consists of ensuring that the workers, the population and the environment efficiently are protected against the dangers of ionising radiation. The Agency went through troubled waters during the last years, with the replacement of its entire management structure (as any Federal body, political considerations befell its structure and functioning). Now that the Agency seems to have stabilised, it is necessary to develop a culture of collaboration, as opposed to a culture of conflict, between the regulatory and the medical sector. Various projects are under development, to clearly define responsibilities and fields of action. A close collaboration nowadays exists with the College of Radiotherapy, in the field of developing a methodology for incident and accident reporting, influenced by the experiences of neighbouring countries (France).

Accident reporting is a legal requirement in all European countries. However, drawing the line between reportable and non-reportable events is a complex task. It is acknowledged that accidents that have caused harm to a patient (or a group of patients), or to staff members, must be reported, but there is a 'grey zone', called 'near-accidents', that has not yet been completely defined. A near-accident is an abnormal event that could have caused harm, but which, by chance, has been corrected in time. Clearly, the 'near-accident' terminology is a vague definition. Work is in progress between the College of Radiotherapy and the AFCN/FANC to better define its content.

Reporting an accident is a painful experience for a radiotherapy department. The more so if it reaches the media, that is always happy to communicate on medical errors. This ought to highly motivate ra-

\*Some excellent websites provide a methodology in this field, for example: [www.npsa.nhs.uk/advice](http://www.npsa.nhs.uk/advice) or [www.safetyandquality.org](http://www.safetyandquality.org)

diotherapy departments to invest time, efforts and financial means in the safety of treatments. These kind of initiatives should be considered as a positive "outcome" of the recent crisis.

*5. The Belgian media are now tuned in on medical accidents, as their English and French counterparts* Medical accidents sell well, that is why journalists will never drop a case. In a recent meeting organised by the AFCN/FANC, a medical journalist came to explain the view of her profession: the population has the right to know; the journalist informs the population, hence the journalist has the right to know... Whether physicians like this or not is irrelevant, as we are not asked for our opinion by the press.

Because we have to live with it, we should try to improve the organisation of our communication channels, as well as the contents. Confidence must be built between media and physicians, rather than suspicion and avoidance. In the past, many medical errors were disclosed to the media by the patients themselves. They did so because they perceived resistance on the part of their physicians to openly communicate, and they tried to use the media to put pressure on the medical sector. The result was that press releases were uniformly accusative, fed by the refusal of physicians to give details to journalists.

There is an ongoing discussion in France, regarding how information regarding accidents should be released, and by whom. The consensus is that accidents should be openly published by the professionals themselves. The recent incident in the Centre Oscar Lambret, for example, was communicated to the local press by the head of the department himself. He had prepared, together with the French Nuclear Agency, a structured set of information, answering in advance to queries from journalists.

This procedure presents a number of advantages. In the first place, this procedure protects the patient far better, as anonymity of course is respected. This anonymity can be further protected because there is no need for the patient to inform the press. Also, the physicians can guarantee the nature and precision of the communicated details, avoiding inaccurate interpretations by journalists with a poor deontology (although this can never be prevented completely). Last, the profile of the medical profession will be enhanced. True or not, physicians are seen as remote and secretive, partly because the medical vocabulary is complicated. A direct communication

between physicians and media can help to change this image.

## Conclusion

Belgian radiotherapy is as safe as it can be. It has a strong and long lasting culture in quality assurance. However, that is not sufficient to eradicate the risk of accidents and, in fact, nothing is. Accident prevention is, like quality assurance, a never-ending process. It must move to the top of the management agenda in all departments.

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