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The Challenges that Face Radiology and Medical Imaging in Belgium

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In this, the introduction to the Country Focus, I have tried to summarize how medical imaging – specifically radiology – has developed in Belgium and how the current position in respect of qualifications, training and the differences between private practice and hospital radiology has evolved.

Belgian Social Security

The Belgian social security model is widely recognised as enjoying broad-based social support. Healthcare is one of the cornerstones of social security policy, endorsed across the whole political spectrum.

The government ensures easy access to healthcare for anyone needing it. Through programmes such as the regulation of training, the imposition of recognition criteria and financial support for continuous medical education, the government strives to guarantee top-quality healthcare for the whole population.

The healthcare budget is large, but not unlimited. The government spends 9% of GNP on healthcare. Every year, a new estimate for healthcare is formulated and priorities are established in terms of care and care provision.

In radiology, this leads to strict standardisation in the installation of expensive equipment (e.g. NMR scanners, Fig. 1).

A Few Numbers

There are 40,666 doctors operating in Belgium. (Cf. Table 1)

This means that Belgium has the second highest number of doctors per number of inhabitants (1 doctor for every 241 inhabitants) in Europe.

As of 1 February 2004, there were 1,469 specialists operating in the field of radiology. Out of a population of about 10 million, this is equivalent to 147 radiologists per million inhabitants. 75 % of these radiologists meet continuous training criteria.

The medical imaging budget for 2005 has been set at 875 million Euros.

The income received by radiologists consists partly of a payment per item of service and also, to a lesser extent, of a fixed fee. With approximately 29 CT scanners per million inhabitants, Belgium comes first in the European rankings, whilst, at around 9 NMR scanners per million inhabitants, we equal the European average. This substantial level of equipment means that there are no waiting times for radiology services, echography and CT scans. The average waiting time for an NMR scan is about 3 weeks, which is shorter than the European average.

Core Business

The radiologist's core task is to perform examinations at the request of a colleague, in order to make or assist in the diagnosis of a clinical condition. This definition remains valid, but in 2004, represents only one element of the radiologist's activities.

Besides his or her clinical responsibilities, the radiologist must act increasingly as the manager of the department in which he or she works. Business administration skills are, at least in departments where the radiologist bears financial responsibility, an absolute necessity. In this context it is instructive to observe that more and more postgraduate training courses in business administration are being provided for doctors.

New Duties

In this section, I have tried to present a brief summary of other duties that the radiologist is required to perform:

- human resources: the correct training and motivation of technicians and secretarial staff;
- information technology: administrative data processing, appointments systems and the analysis of results create a heavy responsibility for radiologists. PACS, RIS and HIS systems and speech recognition provide significant assistance in implementing and optimising this process: however, they not only require substantial material investment but also a significant investment in computer science and networking skills from the radiologist and radiology departments. In Belgium we have gone through the process of widespread introduction of PACS systems, involving not only in various university departments but also, increasingly, in remote radiology departments who are switching to working with little or no film.
- radioprotection Government regulation, including implementation of EU Directives relating to radioprotection and dose measurement, is a hot topic. These regulations oblige the radiologist to assume full responsibility for this aspect of his or her professional life.
- budget monitoring: in January 2004 the government strongly lobbied for the responsibilities of radiologists and prescribing doctors to be increased, through the implementation of 'radiology guidelines for referrals for radiological examination'. These guidelines are, for the time being, voluntary. If, as anticipated, there are further budget overruns for imaging services, then they will be more strictly enforced.
- breast cancer screening: in 2001, the Flemish government launched a breast cancer screening programme in the form of a screening mammography every two years for the target group of women between the ages of 50 and 69. Subsequently (2003-2004) additional breast cancer screening initiatives were launched in the Brussels metropolitan district and also in Wallonia. Only radiologists and radiology departments that met the strict European criteria were able to participate in this process.

Changes in Clinical Practice

In Belgium there are, currently, no legally recognised job-specific titles for, say, neuroradiologists or (surgical) interventional radiologists.

On the other hand, there is a trend, at least within larger radiology departments, towards the division of duties and the introduction of sub-specialties, a feature that has been apparent for much longer in teaching hospitals. The need for sub-specialisation becomes clear when actual working practices are considered. In 2004, a start was made on oncology care programmes in Belgium. This means that, among other things, the symptoms and treatment regimes for individual patients suffering from cancer are now discussed in what is known as a Multidisciplinary Oncology Consultation (MOC). Alongside a GP, oncologist, surgeon and pathologist, a radiologist is routinely involved in a MOC of this kind. Only an accurate and thorough knowledge of this specific clinical condition enables the radiologist to make a sound contribution to this multidisciplinary approach to cancer patients.

Conclusion

This brief summary reveals that, nowadays, a radiologist must deploy many more skills than those acquired through medical training. Technical knowledge and management skills are absolutely essential. Sub-specialisation appears increasingly desirable. Of course, these trends are not exclusive to Belgian radiologists; in point of fact many changes to the relevant Belgian regulations simply reflect the implementation of European Directives.

Introduction to the Following Authors

Dr Karl Merckx is a radiologist operating in the private sector. He is an active member of the Board of NUR-UNR (professional association of radiologists) and was the founder and chairman of VERB-AREB (association of extramural radiologists). He examines extramural radiology in Belgium in some detail.

Dr Piet Vanhoenacker works as a hospital radiologist. He combines a very broad and thorough knowledge of radiology with a very strong interest in computer science and networking. He examines the hospital radiologist's duties in greater depth and provides a vision of the future.

As a radiologist operating within an academic department, Dr Johan De Mey provides a summary of the training of radiologists and the organisation of continuing medical education.

I am very grateful to these colleagues for their contribution.

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