

## Volume 6 - Issue 4, 2006 - Cover Story: Interventional Radiology

### Clinical Care in Interventional Radiology

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#### Innovations Raising Standards of Healthcare

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**Minimally invasive procedures that began as “therapeutic alternatives” have now become first choice procedures, resulting in important changes in patient care. The clinical management of patients has altered with the progressive incorporation of these techniques and certain specialties such as surgery with the use of laparoscopy or gastroenterology with endoscopy have updated and even renamed their area of expertise.**

#### Unique Skills Called For

The development of interventional procedures within radiology has led to some idiosyncrasies. The interventional radiologist, among other specialists, has a detailed and unique anatomical knowledge, is trained in the versatility of the use of different imaging methods and often finds ways to carry out interventions with greater costefficiency. However, the daily programme of an interventional radiologist is primarily devoted to undertaking procedures and reporting them. The “agenda”, usually, does not include time for daily rounds, time to talk with the patient, to explain the procedure or to evaluate clinical results. There are no established rules regarding training requirements or resources needed, leading to a low level of representation within the hospital. At present there are three areas in which an interventional radiologist relates to the patient; perform the procedure in the best possible way; focus our work within a multidisciplinary team in which each does what they know best, and referral to the IR by the general practitioner (primary care physician).

#### Better Training

Interventional radiologists require more extensive clinical training, so that they have a greater involvement in the direct clinical management of the patient. In order to respond to this, training of interventional radiologists has certain essential requirements. In general, current training programmes are based on a five-year model, preceded by one year of clinical internship. The first three years are devoted to a general core radiological training, and the last two are more flexible to enable trainees to undertake more specific training with a clear clinical objective. With this scheme it is intended to obtain specialists that all have basic radiological skills but who also have specific training either in general radiology with the development of subspecialty interests or to focus on a single subspecialty.

In this way, the system is adaptable to the needs of different countries and hospitals, and is flexible enough to include residents who have decided at an early stage their preferences. Some senior specialists argue that, if the resident has decided, at the initial part of the training programme, to be an “interventionalist”, it is not so useful to follow specific areas of radiology indepth but rather to have major involvement in more specific issues related to IR. Under general radiology training, in addition to the final two years, the third common core year should focus on training in the desired subspecialty.

#### Improving Resident Programmes

It is therefore essential to incorporate clinical training modules within the training programme. In addition to the preliminary internship year, the resident should have a structured period in which they can get experience in other disciplines such as anaesthesia, surgery, emergencies or internal medicine. During this period, the resident will provide on-call cover to the relevant area. This training should be between eight to twelve months and should be additional to the five-year radiology training programme. “Organ-related” distribution of the departments should be generally adopted with the aim of increasing clinical involvement of the radiologist and by offering an increased clinical interchange with colleagues of other specialties. Then, clinical training should be incorporated in all the different subspecialty programmes of radiology.

#### A Specific Daily Schedule

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Daily working schedules should be modified accordingly. Daily work in radiology departments is scheduled according to assigned time-slots for each procedure. This includes both time needed to perform the exam and to do the final report. For some radiological procedures this can be reasonably predicted. With the incorporation of new cross-sectional technologies with which the time to obtain the images is continuously decreasing but, on the other hand, the time to do postprocedural evaluation is clearly increasing, radiologic performance is neither easy to schedule nor to evaluate. This difficulty is evident in IR, since procedures have to be evaluated and discussed with the patient and other colleagues. Productivity should not be evaluated exclusively according to the number of procedures performed but with other "indicators" such as their added-value or the impact that they have in adopting new decisions for the daily clinical practice.

The "interventional radiologist", therefore must be properly trained for this task. At the same time, management should understand and recognise the time spent as an essential component of the procedure. The specialist should spend the appropriate ward and outpatient time to properly prepare patients for the procedure and do follow-up.

#### **The Role of Multidisciplinary Meetings**

With this in mind, radiologists should attend as many interdepartmental sessions as necessary. In these sessions the different therapeutic approaches should be discussed, as well as recent developments in treatment. This represents a proactive approach in the search for new patients and in offering our services to other specialists.

New interventional radiology installations not only should be well equipped and built to operating room standards, but also have the space for running a clinic. Thus there will be a properly structured and equipped area where directly referred patients may be seen, information may be given to patients, post-procedure follow-up may be performed or any events that may arise may be dealt with. In the same way beds should be allocated for admitting patients.

#### **Reassessing Income**

The income received for the procedures performed should reflect the actual cost of the whole process of patient care for the procedure and the skill involved in undertaking it. As the therapeutic alternative to open surgery is, in many circumstances, a percutaneous-interventional procedure, which may have similar clinical results it is curious, that the payment for a surgical procedure is very different (i.e., higher) to that performed by the interventional radiologist. Therefore the economical aspects of interventional radiology require review.

Few radiologist candidates will opt to enter a training programme to learn percutaneous procedures if the payment systems remain as they are at present. Not only because they get lower payments when performing the same procedure as a surgeon but also because they can often find better reimbursements if they perform a diagnostic study instead of a complex interventional procedure.

#### **Final Requirements**

In conclusion the requirements and work pattern of interventional radiologists have a number of differences from other radiological subspecialties and it is not a matter of comparing, but of understanding these differences. Productivity should not be analysed just by looking at the number of patients treated or procedures performed. If interventional radiology is to thrive it is necessary to address these issues in order to recruit new specialists and to provide satisfactory working conditions.

Published on : Sun, 1 Oct 2006