‘Interventional Cardiovascular Medicine’: is there a new speciality on the horizon?

Are we beginning to see a change in the way interventional cardiology is practiced? Professor Eric Eeckhout, Associate Professor of Cardiology, University of Lausanne Medical School, believes so.

What do you mean by interventional cardiovascular medicine; how is this different from interventional cardiology?

I have seen a shift in the arena of interventional cardiology from the early days of PCR. The field initially expanded into ballooning and stenting, and has continued to adopt new technology and treat novel indications. This extension of our traditional role has necessitated working with a range of different specialities. With peripheral intervention came radiologists, angiologists and vascular surgeons. Then, as we progressively expanded to include structural heart and valvular disease, where new technology has become available for the percutaneous treatment of valve pathology, we have, more recently, established a link with cardiovascular surgeons. As we have moved forward, the collaboration between cardiac surgeons, cardiovascular surgeons and cardiologists has become an established part of the management of heart patients (in Europe at least). Pure cardiovascular surgery is not, of course, covered by the concept of interventional cardiovascular medicine (the latter relies on a percutaneous approach). However, there is an ever-increasing level of co-operation between these specialities. I believe that new technology, such as that for the percutaneous treatment of heart failure or arterial hypertension, will continue to foster ever-closer working.

The most recent guidelines on coronary revascularization\(^1\)\(^-\)\(^2\) are a perfect example of collaboration between cardiologists and cardiovascular surgeons. Such multidisciplinary working has also been applied in a clinical trial setting: the successful ‘Heart Team’ concept in the recent SYNTAX study\(^3\) is an often-cited example. Likewise, these principles are now being applied in clinical practice and hybrid facilities, where the two specialities work together on a patient who has a pathology that requires both skill sets. A good example of this may be very complex percutaneous coronary intervention. In the case of hybrid coronary intervention, surgeons do part of the work and the cardiologists do part of the work, which means combining stenting and bypasses. However, such working still has a long way to go and it is not yet mentioned in guidelines, but I think a hybrid room is something that you may see more and more in the future.

I would say that the concept of interventional cardiovascular medicine covers the broad spectrum of treating cardiovascular pathology with a team of interventional cardiologists, cardiovascular surgeons, angiologists and radiologists. We also manage stroke intervention, so the concept really stands for a global, percutaneous team-based approach to the field of cardiovascular medicine.

What benefits will patients see?

Many patients would really benefit from having their management reviewed in the ‘Heart Team’ meeting where consensus can be reached as to the best option for the patient. The days where a single physician always decides the best approach for an individual patient are outdated. The management of stable patients with a cardiac pathology should always be discussed in a group setting, a multidisciplinary meeting where people present their opinions on what the best option is for the patient. The European Society of Cardiology (ESC)/European Association for Cardio-Thoracic Surgery (EACTS) revascularization guidelines also tell us that having a single person who says, ‘I know what is best for you’, is probably not the right way to go. The guidelines are very clear: when we have a stable patient you need a ‘Heart Team’ approach, and you need to get the patient down from the table and you need to discuss their case on an individual basis.
This is, of course, for the stable patient. With unstable patients, you don’t have time to lose and they need to get on a fast track for treatment. This can be a surgical treatment for an aneurysm that is bleeding or rupturing, or it can be a cardiac intervention for an acute myocardial infarction. Here, there is no time for discussion.

You are a co-editor of an upcoming book on this subject. Can you tell us a little about who has been involved in the development of the book?

This book, *Percutaneous Interventional Cardiovascular Medicine* (fig. 1), is the result of a joint endeavor between PCR and the European Association of Percutaneous Cardiovascular Interventions (EAPCI) and is due for official release during EuroPCR in May 2012. We hope the book will provide a comprehensive overview of the field of interventional cardiovascular medicine and will prove to be a useful reference for many years to come.

During the editing process, I have been lucky enough to work with a number of very well-respected physicians. We really wanted to represent our association, the PCR family and, of course, interventional cardiology across Europe. Together with Patrick Serruys, I am the editor-in-chief of the book. The other editors are William Wijns (the first President of EAPCI), who is covering the coronary and coronary structural valve field with input from Patrick; Alec Vahanian (previous Chairman of the Guidelines Committee of the ESC), who is covering the valvular field; and Marc van Sambeek (a member of the Board of PCR), who is covering peripheral vascular surgery. We have a number of other sub-editors that are helping to pull together the different sections in the book. These include people from across Europe who are involved in the EAPCI Board, as well as contributors from as far afield as America, New Zealand, Singapore and Brazil.

What topics does it cover and what makes it different from other cardiovascular textbooks?

The book will cover all aspects of interventional cardiovascular medicine across 94 chapters, including coronary, structural, valvular and vascular aspects of patient care. It has been designed to harness the joint resources and strengths of both EAPCI and PCR. We have tried to ensure that we have covered new technologies and indications to the best of our ability. We believe that this will make it the most comprehensive textbook available in the field of cardiovascular medicine and we hope that readers will recognize this as a real strength.

Right from the very beginning, we wanted to ensure the book was easy to digest. In many respects, some reference textbooks are so grey and uninviting: there is no colour and there is a lot of text. We were keen to ensure that this book was very accessible, without losing any of the detail. Therefore, for the reader who wants to skim through the book, there will be highlight boxes that will give them an overview of the important take-home messages for each of the chapters. This text will also be highly innovative, with a very strong online companion version and an iPad app to support learning. This means that the textbook will be linked to a very strong multimedia library of video, audio and clinical cases, and it will be linked to the full gamut of PCR online resources. A good example of the benefits this can provide can be found in the chapter on pericardiocentesis. Although the procedure is well illustrated in the book, added value can be found on the website where readers will be shown how to puncture a pericardium when a patient is going into tamponade. An additional advantage of having an online version is that it enables us to keep the book up-to-date, because whilst the printed paper
version will be reviewed on a regular basis, the online version will be updated very regularly as new data become available. The text will also include a number of personal perspectives as in the ESC cardiology textbook.

Given the book’s strong connection with PCR and EAPCI, we would like to position it as the reference book for training in this field. In the future, we will provide a database of multiple choice questions that may become very important for future accreditation or potential board exams.

**Who are the target audiences for the book?**

We have worked hard to produce a reference text for interventional practice as a whole. The contents of the book have been designed around the curriculum for interventional cardiologists developed by the ESC and EAPCI, so that means that, if you know everything in the book, you are a bright person! It is almost impossible to know everything covered in this book, so we see it as being useful for every level of experience. It is a reference for the veteran interventional cardiologist who wants to just check some information quickly and confirm that what he or she thinks about a particular issue is correct, right through to the book working as a training tool for the newly qualified interventional cardiologist. From young to old; it is a book for everybody.

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REFERENCES: