When Dr Tendera stepped into the spotlight as president of the European Society of Cardiology (ESC) in 2004 it was a time of great change both in Europe and in cardiology. The past 2 years in this office have been a whirlwind of activity for Dr Tendera, who is a past president of the Polish Cardiac Society and professor and chair of cardiology at the Upper-Silesian Cardiac Center, Silesian School of Medicine, Katowice, Poland.

“The ESC is in essence a federation of 50 national societies, 5 subspecialty associations, 18 working groups, and 3 councils,” Dr Tendera explains. “We also have affiliated members from outside Europe and individual members — the fellows. The total number of individuals who belong to the ESC is now in excess of 50,000.” Dr Tendera feels that his tenure came at the end of a decade of progress that saw the ESC develop into an increasingly active and professionally relevant organisation. With a mission to reduce the burden of cardiovascular disease in Europe, the ESC has had to broaden and strengthen its portfolio of projects to accommodate changes within and outside the cardiology profession.

This portfolio is extensive and includes a collection of congresses and meetings, an active publishing arm with 7 journals, and the development of guidelines, education, and auditing processes. “Although the list of ESC projects and initiatives is long,” says Dr Tendera, “if I were to name some of the main achievements of this board and this presidency, a significant one has been the integration of cardiovascular medicine.” He continues, “I think that cardiology is at a very interesting point in time when there are 2 forces acting on this speciality. The first is attracting other subspecialities of medicine and is developing into cardiovascular medicine, which includes aspects of cardiovascular surgery, molecular biology, nephrology, and other specialities.”

Dr Tendera says that the second force resembles that which led to the fragmentation of internal medicine as a discipline around 20 years ago, with the advent of subspecialities such as cardiology, nephrology and gastroenterology. “This is starting to happen in cardiology. We at the ESC think that talking together and staying under one umbrella is something that is extremely important,” says Dr Tendera.

“So far, we have been quite successful because we have created new branches representing subspecialities within the ESC. We started with 4 such branches: the European Heart Rhythm Association, the European Association of Echocardiography, the Heart Failure Association of the ESC, and the European Association for Cardiovascular Prevention and Rehabilitation. They are all independent organisations that act within the ESC.”

To add to this list, in the past year...
an agreement was struck to merge EuroPCR with the ESC Working Group on Interventional Cardiology to form the European Association of Percutaneous Cardiovascular Interventions. Dr Tendera emphasises that these activities marked an important step in maintaining and strengthening the cohesion of European cardiovascular medicine.

Another area in which the ESC has been particularly industrious during Dr Tendera’s presidency revolves around its stronger relationships with both national cardiology societies and with the European Union (EU). There have been several initiatives, but the main focus of collaboration in recent years has been prevention of cardiovascular disease. Dr Tendera says, “This will be summarised in a document that is likely to be launched in a few months’ time under the German presidency of the European Union—the European Heart Health Charter.”

Dr Tendera points out that the decision to take this initiative was made at a conference organised jointly by the European Commission, the ESC, the European Heart Network, and World Health Organisation Europe. “So what we have now,” he says, “is a common view of how cardiovascular health promotion should be approached in all EU countries. Of course, development of such projects would have been impossible without a major contribution from different national societies. There were proposals from everyone and several meetings which included, perhaps for the first time in history, representatives of ministries of health and presidents of national cardiology societies of different countries, sitting together at one table and discussing cardiovascular disease prevention. So it was a joint project that really involved all national members.”

With regard to the more mainstream activities of the ESC, Dr Tendera notes, “There is a need to audit whatever we do clinically. And this is what we are doing with the development of surveys and registries. In the last 2 years the structure of the ESC survey program has been changed, and, most importantly, the participating countries and individual centres receive feedback on their performance, which has allowed benchmarking of the results between different program participants.”

Dr Tendera is keen to see the ESC audit flourish and inform future clinical practice throughout Europe. “I think this is very valuable because we sometimes don’t know the optimal use of high technology, for example,” he says. “There are no good reasons why in one country the rate of implantation of implantable cardioverter defibrillators is high, while in another the rate of use of drug-eluting stents is high. And we don’t know whether this is reflected in patient outcomes. Now we have an improved tool to see how differences in practice have an impact on clinical results.”

In addition, Professor Tendera notes, “I think what has been done in the field of guidelines is quite impressive, and what is important is that those guidelines are now adopted by most of the national societies. Thus, they do not produce their own guidelines any longer but endorse those of the ESC. They provide translations and comment on specifics to do with their own geographical, epidemiological and financial situations. So, this activity has been harmonised to a large extent.” Importantly, all the guidelines are accompanied by derivative educational tools that are available in different languages, and education is another major area where Dr Tendera feels that improvement has been made.

One example of this improvement is the emphasis that the ESC has put on the development of educational material in print and especially electronic form, rather than on meetings. Dr Tendera explains, “Another aspect of education is the development of the core curriculum, and this is a very detailed outline of what kind of training should be required of all cardiologists throughout Europe.” This harmonisation is a critical development, especially in light of the increasing mobility of the medical workforce in Europe. The draft document outlining these requirements has been agreed to by most national societies, and Dr Tendera is confident that it will soon be implemented.

Dr Tendera mentions a third example where there has been progress in education. “For the first time, we have produced a textbook of cardiovascular medicine that is based on guidelines. It will be a key tool for cardiologists in training and is being translated into several languages.” Perhaps it is a fitting tribute to Dr Tendera’s energetic 2 years at the head of the ESC that the first non-English version of the ESC Textbook of Cardiovascular Medicine will be in Polish.

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Climbing the Cardiology Career Ladder: The Netherlands

Starting in 2007, cardiology fellows training in the Netherlands will have to choose a subspecialty. Freek W.A. Verheugt, MD, PhD, FESC, chairman of the Committee of Cardiology Training Directors of the Netherlands, calls for more women and more mobility. Barry Shurlock, MA, PhD, talks to him about this and other training issues.

The Netherlands has about 120 hospitals, of which 80 have catheter laboratories, 20 practice primary coronary intervention, and 13 have facilities for the full range of cardiology interventions, including cardiothoracic surgery. Each year, about 60 new cardiology trainees (termed fellows), who already have had 6 years of basic medical training for their MD, are admitted to the 13 major centres. Here, they train for 2 years in internal medicine and for 4 years in cardiology. From the middle of this year, all fellows will have to decide in their final year which of 6 subspecialties they wish to pursue (Figure 1). These are interventional cardiology, electrophysiology, congenital cardiology, cardiac intensive care, cardiac imaging, or general cardiology.

Dr Freek W.A. Verheugt, professor and chairman of the Department of Cardiology at the Heart Lung Center, University Medical Center in Nijmegen, the Netherlands, comments, “It will be a big change, but the need for this is generally accepted. Plans are already in place for the 1-year subspecialty courses, although there is some talk that for electrophysiology and interventional cardiology it should be 2 years. Not every cardiology fellow will opt for a named subspecialty, and that’s why we will have the category of general cardiology.”

Cardiology in Dutch hospitals is completely separate from internal medicine, explains Dr Verheugt. “I regard this as a great strength in terms of raising money for research, though for some complex clinical cases, specialists from other disciplines may need to be called in.” Much of the financial support for cardiology comes from the Netherlands Heart Foundation, a national charity.

A major interest at the Heart Lung Centre in Nijmegen is congenital heart disease and paediatric cardiology. Dr Verheugt’s personal interest is primary coronary intervention for ST-elevation myocardial infarction and related conditions. At Nijmegen, patients with infarcts are accompanied in the ambulance by specialist nurses who perform electrocardiography, proceed to make a preliminary diagnosis, and fax or e-mail ECG readings to the hospital in advance of admission. Clinical audits show that, on average, patients in Nijmegen are in the catheter laboratory within an hour of an emergency call.1

Cardiology is much sought after as a speciality by newly qualified doctors in the Netherlands, where they are attracted by the charisma associated with the speciality and by the fact that it is a hands-on discipline using sophisticated technology, with results that are often quickly and unambiguously apparent.

Training in the country is highly developed and well organised, according to Dr Verheugt, but he points to 2 areas where he would like to see progress. “First, it is difficult in the Netherlands, as in other countries, to persuade young women to train, though the reasons are not clear.” He suggests, “Perhaps it is the need for intense work at weekends and during night shifts. We are trying to tackle the problem by encouraging more women to be involved in cardiac research, in the hope that they will later take up the speciality.”

Dr Verheugt also would like doctors to be much more mobile in the early years of their careers in the Netherlands, where it is normal to do both basic medical training and speciality training in the same hospital and/or medical school and then to stay on in a career post. “It is a weakness, not only in the Netherlands, but in continental Europe as a whole,” he says. “People tend to stay in the hospital or the university where they train. Even moving from, say, Amsterdam to Rotterdam, which is only a distance of 65 kilometres, is rarely done. I try to encourage my own fellows to move about, but it’s not easy to get the jobs or the funds. Also, they don’t

Figure 1. Cardiology fellows in training in the Heart Lung Centre in Nijmegen. They will have to select a subspecialty to pursue for 1 year as from mid 2007.
move because of family, friends, roots—it’s a cultural thing. Yet, it is always good to see how things are done in another hospital, where the axioms are probably different.”

Because the teaching programmes at the 8 medical schools in the Netherlands are not well coordinated, it is sometimes difficult to shift from 1 programme to the other midcourse. As a young doctor, Dr Verheugt took his own advice: After doing his MD and PhD at Amsterdam and his cardiology training at Rotterdam, he and his family spent a year in the United States, where he worked as an assistant professor of medicine in the Cardiology Division of the University of Colorado Health Sciences Center, Denver, Colo.

After training for their MD, Dutch doctors who wish to specialise in cardiology are free to apply to any of the 13 hospitals that have training programmes. “Many apply to all 13 to maximise their chances of acquiring a place. Applications by letter are screened, and a short list of candidates for interview is prepared,” explains Dr Verheugt, who says that a key requirement he looks for is the ability to make quick decisions in stressful circumstances.

He says, “Every 3 months, a colleague and I interview 5 or 6 applicants during the course of an afternoon. The application letter is very important. I look for good reasons why they have chosen cardiology. Did they opt for cardiology during their 3-month preferred internship? What did they do during the obligatory research project for their MD? If it was cardiology, that’s obviously important. Why have they chosen this hospital? I expect them to have some knowledge of our research and training programmes. I’m not impressed if their father was a cardiologist, though I’m interested!”

Explaining how the interview progresses, Dr Verheugt says, “For me, the first 10 seconds are the most important—how did they come across, how did they look, how did they shake hands? It sounds trivial, but it’s important in a speciality where close contact with patients in stressful situations is the norm.”

Once accepted for training, fellows have their progress assessed informally with tutors 4 times a year. Until they have completed 3 years of specialist training, they can be taken off the course, but this only occurs in about 5% of cases, according to Dr Verheugt. The training programmes themselves are assessed every 5 years through visitations; each visitation is conducted by 2 programme directors, accompanied by a fellow, all from elsewhere. Shortcomings may require a repeat assessment after 2 years, but this is uncommon.

Once a fellow has obtained a diploma as a cardiologist, he or she is free to work throughout Europe, subject to language restrictions, but in practice, almost all of them stay in the Netherlands. Doctors from outside the Netherlands who wish to practise in the country have to be able to speak Dutch (non-speakers usually take a 6-month course with a final examination) before being eligible for licensing. Licensing is the task of the Medical Specialist Registration Committee of the Royal Dutch Medical Society. Dr Verheugt strongly recommends that cardiologists who wish to reach the top of the profession study for a PhD before undertaking speciality training. Although this route is only taken by about 20% of Dutch cardiologists, 2 out of 3 cardiologists at the Heart Lung Center in Nijmegen are hired for their research skills, and most will have taken a PhD between their MD and specialist training. He comments, “Other cardiologists are employed for specific technical skills, as dedicated teachers, or because they are able to handle complex clinical cases.”

Asked about the future, Dr Verheugt says, “Cardiology training will be split up into the subspecialities, but only after at least 2 years of medicine and 3 years of general cardiology. Society demands subspecialists, but general cardiology will always be necessary.”

Barry Shurlock is a freelance medical writer

Reference

Viewpoint: Michele Brignole, MD, FESC
Some Thoughts on Unexplained Syncope

Syncope is often unexplained or misdiagnosed. Dr Michele Brignole, chief of the Arrhythmologic Centre, Department of Cardiology, Ospedali del Tigullio, Lavagna, Italy, outlines to Ingrid Torjesen, BSc, how he believes management of syncope in Europe can be improved.

Accurate diagnosis of syncope is essential because treatment needs to be tailored to its cause, says Dr Michele Brignole, and he hopes this better management will be achieved for patients in Europe in the near future.

“A syncopal episode is experienced by 30% to 40% of young adults and by 50% of people during their lifetime,” Dr Brignole states. “It is one of the most frequent causes of emergency room visits and hospitalisations.”

Diagnosing the cause of syncope is difficult because it can be related to several diseases and patients are usually asymptomatic at evaluation. An accurate diagnosis is essential for determining the most effective treatment strategy and the likely prognosis, but, at present, according to Dr Brignole, the diagnostic process at many European centres involves “costly and often useless diagnostic procedures.”

He explains: “As syncope is so common, virtually all types of doctor come across it, including general practitioners, emergency doctors, cardiologists, neurologists, internal medicine specialists, and geriatricians. This has made it difficult to improve the standardisation and organisation of syncope.”

Expressing his frustration, Dr Brignole continues, “We tried for 20 years to teach the best methodology, to teach a standard, but it is impossible. If there is a relatively small group of homogeneous doctors, you select a few who are very keen on that selected topic. It is their job, so it is easy to obtain a quality standard. But, if you have to teach thousands of doctors because syncope is only a minor part of their time, it is almost impossible.”

The fact that strategies for assessing syncope vary widely among physicians and hospitals creates enormous difficulties, says Dr Brignole. “The result is a wide variation in the diagnostic tests applied, the proportion and types of attributable diagnoses, and the proportion of syncope patients in whom the diagnosis remains unexplained.” The lack of a uniform strategy for the management of syncope in everyday practice was confirmed by a prospective study of patients attending 28 general hospitals in Italy.

In 2004, the European Society of Cardiology Syncope Task Force tried to address this issue by publishing guidelines for managing syncope. Dr Brignole chaired the task force and says their objective was to set a standard for management and promote both the development of syncope specialists and the availability of specialist facilities. Their rationale was that all doctors are likely to see a patient with syncope so should be trained to perform an initial evaluation. This would enable them to select those patients who require referral to arrhythmologic facilities.

In the 1980s, the cause of syncope remained unexplained in around 30% to 40% of patients. This percentage has progressively decreased and now stands at around 20%. However, a recent study showed that strict adherence to recommended guidelines led to a diagnosis for virtually all patients, with the cause unexplained in only 2%.

Around two thirds of patients are diagnosed with neurally mediated reflex syncope, and Dr Brignole says that the incidence of this type is actually higher because some patients will not seek medical attention for their episodes. Another 10% to 15% of patients are diagnosed with cardiac syncope (see Figure), which has a poor prognosis unless there is effective treatment. “One of the most important goals of syncope evaluation is to identify cardiac syncope and to differentiate it from other causes, especially the most frequent, benign neurally mediated,” Dr Brignole says.

In addition to failure to attribute a cause, misdiagnosis is also a problem with syncope. According to Dr Brignole, physicians frequently confound the prognostic significance of syncope with that of underlying heart disease and treat accordingly. “An implantable cardioverter defibrillator (ICD)
is currently recommended for patients with syncope who have structural heart disease and an ejection fraction <30%.

An ICD would be indicated even in the absence of syncope for the underlying structural heart disease, so the role of syncope in the decision-making process is uncertain. There are no recommendations on how to investigate the mechanism of syncope, so it remains unexplained and likely to recur.”

He adds that patients with Brugada ECG pattern who present with syncope are also recommended to receive an ICD, because syncope is an ominous finding likely to be caused by a transient self-terminating ventricular tachyarrhythmia that, on another occasion, could be responsible for cardiac arrest and sudden death. But Dr Brignole points out, “Vasovagal syncope is very frequent in the general population, occurring in 30% to 40% of young adults. Young adults presenting with the Brugada ECG pattern have the same probability of having a benign vasovagal syncope not caused by transient ventricular tachyarrhythmia. Therefore, the solution is not to implant an ICD in all patients but to be able to differentiate carefully the true mechanism of syncope in this particular group of patients at risk of sudden death.”

A quarter of the 400 hospitals with a cardiology department in Italy already have some kind of specialist syncope facilities as proposed by the European Society of Cardiology Task Force. Dr Brignole says, “A standardised-care pathway approach significantly improves diagnostic yield and reduces hospital admissions, resource consumption, and overall costs.” These facilities can be managed by a cardiologist with special training in syncope management, Dr Brignole believes. In Italy, the syncope units are managed mostly by an arrhythmologist, who is an interventional or noninvasive electrophysiologist, takes the responsibility for diagnosing the patients, and works in collaboration with the other specialists: invasive cardiologists, emergency doctors, neurologists, internal medicine doctors and geriatricians.

Most syncope is of vasovagal origin, so patients do not require specific treatment, simply reassurance and education on what to do to avoid syncope. Dr Brignole says, “The most simple method is for the patient to lie supine if something is wrong. Ninety percent do not require anything else. Only in a few cases, probably no more than 10%, is additional treatment required.”

When syncope is related to hypotension, the most effective treatment of an episode is cessation of antihypertensive therapy, a physical manoeuvre to counteract the low blood pressure, and if required, the prophylactic use of elastic stockings. “In a few patients, syncope is caused by a pause of the heart beat of up to 30 seconds, in which case the patient might benefit from cardiac electrostimulation,” he adds. “When syncope is due to a primary cardiac arrhythmia, we have to identify which type of cardiac arrhythmia and give the specific treatment, which might be catheter ablation or ICD implantation.” Finally, in a few instances, syncope is due to mechanical abnormalities, such as aortic stenosis, requiring surgical correction of a stenotic valve.”

As the treatment required for syncope is so dependent on the cause, Dr Brignole predicts that the most important advances in the next few years will be related to improving diagnostics. Until recently, syncope evaluations were performed in the laboratory where the doctor tried to replicate the syncope in order to understand the mechanism. The limitation with this approach was that it was artificial, and the emphasis now is much more on “wait and watch.”

Dr Brignole believes that the use of external or implantable monitors will become increasingly important as doctors in Europe move towards the gold standard of evaluating syncope—the observation of a spontaneous episode. “Their use will increasingly be appropriate instead of, or before, many current conventional investigations,” he predicts. “Ultimately, technology may allow recording of multiple signals, in addition to the ECG, such as blood flow or pressure, oxygen supply, heart rate, and electroencephalogram, with the automatic immediate wireless transmission of pertinent data to a central monitoring station. Such advances will permit greater emphasis on the documenting and characterising of spontaneous episodes. However,” he concludes, “careful initial risk stratification will be needed to exclude on one hand those patients with potential life-threatening conditions that need immediate therapeutic intervention, and on the other, those who have mild and benign episodes that do not require any action at all.”

Ingrid Torjesen is a freelance medical writer.

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