Spotlight: Kenneth Dickstein, MD, PhD, FESC

“The More I Worked on the Guidelines, the More I Realised how Limited the Documentation Is, and how We Have Scant Evidence for Many of the Decisions We Have to Take Every Day”

Kenneth Dickstein, professor of medicine, University of Bergen, Stavanger University Hospital, Norway, immediate past president of the Heart Failure Association of the European Society of Cardiology, and chair of the Task Force on Heart Failure of the 2008 ESC Committee for Practice Guidelines, talks to Mark Nicholls.

For the whole month of February 2008, Kenneth Dickstein, MD, PhD, FESC, professor of medicine at the University of Bergen and Stavanger University Hospital, Stavanger, Norway, immediate past president of the Heart Failure Association of the European Society of Cardiology (ESC), and chair of the Task Force on Heart Failure of the ESC Committee for Practice Guidelines, secluded himself by the fire in his country home in the Norwegian mountains, across the fjord and a ferry away from Stavanger, to deal with the amendments and comments on the initial draft of the 2008 ESC Guidelines on Heart Failure.1

“What I Am Most Proud of Is That We Convinced the ESC Committee on Practice Guidelines to Add a Final Chapter Called ‘Gaps in Evidence’”

Professor Dickstein is an American who says he became an anglophile at 12 years of age when he accompanied his parents on a grand tour of Europe. He now describes himself as “semi-Norwegian with a pan-European view representing the well-functioning socialism and neutrality of Scandinavia.”

A fluent Norwegian speaker, Professor Dickstein believes that his early involvement with the ESC was significant in shaping his career. “With 53 countries cooperating within the ESC, the society is influential and productive,” he says. He has served as the president of the Heart Failure Association and chaired the Task Force for the 2008 ESC Guidelines on Heart Failure. As immediate past president, he is chairing the 2009 Heart Failure Congress in Nice, France, in May and has recently been elected to the board of the ESC. “I like getting along with people, and it helps that I have a pan-European view and an easily understood American accent. There’s a lot of competition in academic European cardiology. Maybe I was a compromise candidate from Scandinavia but that somehow put me in a politically correct position and that helped me a lot.”

Professor Dickstein believes that the new guidelines on heart failure, published in October 2008,1 are a significant step forward and have brought together the management of acute and chronic heart failure into a single document.

He says, “One of the greatest privileges was working closely with Philip Poole Wilson [MA, MD, FRCP, FESC, FACC, FMedSci], for a year and a half. Philip helped us write the guidelines in sensible English with less Greek and Latin. The result was a very readable document in easily understood language. We emphasised nonpharmacological treatment and the role of heart failure nurses, and for the first time included a section on palliative care. What I am most proud of is that we convinced the ESC Committee on Practice Guidelines to add a final chapter called ‘Gaps in Evidence.’ The more I worked on the guidelines, the more I realised how limited the documentation is and how we...
have scant evidence for many of the decisions we have to take every day. Two pages at the end highlight some of these important clinical issues, and this approach may be adopted in all future ESC guidelines. As Poole-Wilson said, ‘This chapter is an exercise in humility.’”

Another initiative that Professor Dickstein is pleased to have been involved with during his time as president of the Heart Failure Association of the ESC is the creation of the heart failure information Web site (http://www.heartfailurematters.org) for patients, families, and primary care physicians. He says, “It is absolutely essential that patients understand what heart failure is and why they should adhere to therapy. The Internet is the source of information for most people today, and we tried to create an attractive user-friendly site that would be fun to visit. We are now translating the site into the main European languages.”

“Often, Cardiology Seeks Out the Hardest-Working Doctors Who Really Love the Tempo, Competitive Atmosphere, and Fast Pace of Hospital Life”
The son of a paediatrician, Dickstein was born in Philadelphia, Pa, in April 1947. He did undergraduate training at the University of Pennsylvania, Philadelphia, and then from 1970 to 1976 he studied for a dual degree at the University of London, United Kingdom, and the Royal College of Surgeons in Dublin, Ireland, where he won the First Prize and Gold Medal in Medicine. “I commuted between London and Dublin for 6 years, one of the most enjoyable periods of my life,” he recalls. Between 1988 and 1990 he worked as cardiology research fellow at Harvard Medical School, Boston, Mass, and he completed a PhD in exercise physiology at the University of Bergen, Bergen, Norway, in 1991. Meanwhile, he met Ingrid, a South African living in Norway, who became his wife.

Professor Dickstein was inspired by the opportunities and challenges associated with a career in cardiology. He says, “Once you choose medicine, many of the most ambitious and most competitive doctors tend to want to go into cardiology because of the size and diversity of the field. It is endless, which is an irresistible challenge. Very often, cardiology seeks out the hardest-working doctors who really love the tempo, competitive atmosphere, and fast pace of hospital life. The way patients respond to a cardiac diagnosis is fascinating. They may be acutely ill but often have a problem that you can correctly diagnose rapidly. Appropriate therapy frequently leads to a rapid response—within days, sometimes within minutes. We also have very effective ways for evaluating whether patients are improving or not. The response time is different in other fields. Although the prognosis may be poor, cardiovascular disease is more easily accepted emotionally by patients and their families as compared to, for example, cancer.”

Professor Dickstein points to 3 key figures who have shaped his career. He explains, “Garret FitzGerald, MD, from Dublin taught me to combine humour with a love of medicine; Per Lunde, MD, from Tromso fascinated me with the intellectual labyrinth of cardiology.” In addition, he has had a 2-decade collaboration with Torbjørn Aarsland, RN, from Stavanger, whom he describes as “a superb research technician, with a range of skills, who has been totally dedicated to our work.”

His current role as professor of medicine at the University of Bergen involves running a busy coronary care unit at Stavanger University Hospital, which has 24 beds and treats 1200 myocardial infarctions a year, along with many other acute medical conditions. Professor Dickstein conducts an academic teaching round every morning from 7.30 AM to 1 PM and devotes the rest of the day to research and various ESC initiatives.
care unit and coordinating the teaching programme at Stavanger University Hospital. He is responsible for 80 medical students every year and oversees the work of 31 academic positions at the hospital. The coronary care unit has 24 beds and treats 1200 myocardial infarctions a year, along with many other acute medical conditions. Primarily regarding himself as an echocardiographer, Professor Dickstein conducts an academic teaching round every morning from 7.30 AM to 1 PM and devotes the rest of the day to research and various ESC initiatives.

“In Terms of Research, OPTIMAAL is the Most Important Work Because It Had Such a High Profile”

Professor Dickstein’s primary research focus is clinical research in heart failure. Early on, Dickstein developed an interest in the drugs that inhibited the renin–angiotensin system and conducted invasive pharmacokinetic and pharmacodynamic trials for many years. An article reporting the effect of captopril given to 8 patients in 1980 in Boston had a career-changing influence on him. He says, “Captopril dramatically reduced fluid retention in 1 of my patients and led to a 16-litre diuresis in 2 days. From then on, I understood that inhibition of the renin–angiotensin system, in appropriate patients, could lead to a striking improvement.”

Professor Dickstein became involved in the landmark CONSENSUS trial (Cooperative North Scandinavian Enalapril Survival Study) working with Professor John Kjekshus, MD, PhD, and Professor Karl Swedberg, MD, PhD, FESC. This eventually led to his role as principal investigator of the OPTIMAAL trial (Optimal Trial in Myocardial Infarction With the Angiotensin II Antagonist Losartan), comparing the effects of an angiotensin-receptor blocker and angiotensin-converting enzyme inhibitor on mortality and morbidity in patients after complicated myocardial infarction.

“I think that in terms of research, OPTIMAAL is the most important work because it had such a high profile,” he says. However, he adds, “There is other work that I am really proud of. My PhD focused on exercise physiology, the methodology involved in cardiopulmonary exercise testing, and the effects of intervention on performance. I have always enjoyed invasive haemodynamic studies and have been involved in the early evaluation of many novel drugs in heart failure, especially neurohumoral modulators, and I was particularly impressed with the effect of glaucoma treatment on exercise capacity and demonstrated the potent cardiac effects of β-blocker eye drops. I have also worked to promote nurse-led heart failure management programmes in Europe, which are central to successful delivery of care. More recently, we have become involved in bone-marrow stem-cell treatment in early postmyocardial infarction and evaluating and targeting the inflammatory response in these patients.”

He is currently advisor for 4 PhD students working with cardiac magnetic resonance imaging and remodelling, the interplay within the family of biomarkers, surveying European practice with regard to cardiac resynchronisation devices, and exploring the promising role of phosphodiesterase type 5 inhibition in heart failure. Much of the work is funded from an array of sources, ranging from national grants, industry, international funds, and the university.

Professor Dickstein enjoys serving on numerous editorial boards and steering committees for large clinical trials. He notes, “One must be aware of potential conflicts of interest, but the success of large studies is dependent on the sensible input of experienced investigators.”

Commenting on developments ahead, particularly in terms of pharmacogenomics, implantable devices, and remote monitoring, Professor Dickstein says, “I suspect that we are going to be tailoring drug therapy to a patient’s genotype. The students that are coming out of medical school and really understand genetics will be influential and direct future research. Similarly, doctors who understand technology may make important contributions in the continuing development of an array of devices and remote monitoring. By implanting devices, we can receive an enormous amount of information through telemetry and we are going to be able to detect decompensation early. In the future, we are going to be calling patients up and saying ‘we see your heart is going fast,’ ‘your renal function is worsening,’ or ‘you are having a small heart attack, please come in.’”
“Clinical Cardiology Is a Lifestyle. It Will Never Be a 9-to-5 Job and You Will Never Feel That You Have Read Enough”

Professor Dickstein tries to balance his commitment to patients, students, research, the ESC, his family, and personal time. He notes that young people considering a career in cardiology should recognize that they will have to work long hours and “devote themselves” to it if they are to succeed, and he says, “Clinical cardiology is a lifestyle. It will never be a 9-to-5 job and you will never feel you have read enough. The literature in cardiology is vast. But if you are driven and can stand the pace, it’s a great field and is worth the stress. If you succeed academically you will spend a lot of time peer reviewing papers, but that’s an important investment of your time. We always carry papers in our white coat pockets.”

Professor Dickstein remains concerned with the number of women in cardiology and would like to see more action taken to make it possible for women to enjoy the field. Most of the medical students in Norway are women and yet very few enter cardiology, he notes. “We need sensible cardiologists, and that often means women. We also must develop strategies that improve the cross-talk between basic scientists and clinicians. Translational research mandates that we sit down at the same table. The Heart Failure Association of the ESC has recognized this and made it part of our mission. We need to bring central and Eastern Europe up to speed, and this should be a major priority. There is enormous enthusiasm and potential in these countries, and we must open the doors to these young physicians.”

As for his own future, he wants to remain “hands on,” continue to enjoy the teaching role he loves, and see the Heart Failure Association prosper. And when he needs to take time out and relax, he will put on his waders, enter the white water of the river, and find inspiration from a summer afternoon fly fishing.

References

Mark Nicholls is a freelance medical journalist.
Nuno Cardim, MD, PhD, FESC, professor of cardiology and director of the Echocardiography Laboratory, Hospital da Luz, Lisbon, Portugal, followed in his grandfather’s footsteps when he started his medical studies in 1981 at the University of Lisbon, Faculdade de Medicina de Lisboa. And as a medical student in Lisbon, his birthplace, Cardim was inspired by Maria Emília Silva, MD, a professor of cardiology. He says, “She was a very good teacher. She was not a famous cardiologist, but she strongly influenced my decision to study cardiology.”

Cardim qualified MD in 1987 and began a fellowship in cardiology in 1990 at the Hospital Pulido Valente, Lisbon, where he was encouraged to specialise in echocardiography, and he started to develop his research career with the help of 2 older colleagues and friends, A. Trigo Pereira, MD, and Teresa Ferreira, MD.

An Inspirational Fellowship in Germany “Made A Difference to My Career”

Two fellowships abroad followed—one in Spain and one in Germany. In 1993, Cardim trained in transthoracic and transoesophageal echocardiography under the guidance of Miguel A. García-Fernández, MD, at the Hospital Gregorio Maranon, Madrid, Spain. Then in 1995, he trained in tissue Doppler imaging with Raimund Erbel, MD, professor and director of the Department of Cardiology at the University Clinic Essen, Essen, Germany.

Professor Cardim says, “The fellowship I did in Germany was very important because at that time tissue Doppler imaging was a new technique in echocardiography. It was a very exciting era. Having a new technique in our hands and having the opportunity to work with it, including working with Professor Erbel, has made a difference to my career.” Indeed, Professor Cardim considers Professor Erbel to be the person who has inspired him most in his research career and says, “He is a man with great vision. He gave me some important ideas about what I should do in my future career in research. I returned from Germany with the knowledge I had acquired about tissue Doppler imaging, and became the pioneer of this technique in Portugal. I wrote a research paper with Professor Erbel about tissue Doppler imaging in the Portuguese Journal of Cardiology,1 which was the first paper to be published in Portugal about this subject. It was a significant point in my career.”

Professor Cardim’s research has focused on hypertrophic cardiomyopathy. He says, “In 1996, the genetic study of hypertrophic cardiomyopathy was at an early stage in Portugal. So I collected blood samples from my patients and sent them to Berlin, Germany. It was a cooperative work between us.” This study, together with the knowledge he gained while working with Professor Erbel, led to his doctoral thesis on pulsed tissue Doppler imaging in hypertrophic cardiomyopathy.

Hospital da Luz, Lisbon, Portugal. Professor Cardim says, “I work in a very modern hospital with excellent technology. Hospital da Luz opened just 2 years ago.” Photograph courtesy of Professor Cardim.

Professor Cardim with the echocardiography team at Hospital da Luz, Lisbon, Portugal. Photograph courtesy of Professor Cardim.
Setting Up the First Outpatient Clinic Specialising in Hypertrophic Cardiomyopathy in Portugal

As a result of his interest in hypertrophic cardiomyopathy, Professor Cardim is setting up an outpatient clinic specialising in the condition at Hospital da Luz, and describes this as a “dream come true.” It will be the first of its kind in Portugal and will open in September 2009. He says, “In the future, I would like to carry out more investigations and hopefully organise a significant meeting in Portugal that will attract leaders in the field.”

Grants associated with awards such as the Premio Nunes Correa Verdaes Faria, a prestigious career award in Portugal given by the Foundation of Santa Casa Misericordia, sometimes fund Professor Cardim’s research, but he says, “I don’t depend on grants because I work in a very modern hospital with excellent technology. Hospital da Luz opened just 2 years ago. It is very exciting to begin a new department and stimulating to organise everything with excellent technical conditions. These things are very important for my research.”

As director of the echocardiography laboratory in Hospital da Luz, Professor Cardim says, “I organise the activity of the echo lab and ensure the quality control of the examinations. Also, I perform advanced echocardiography methods.”

Carrying out both his administrative and clinical responsibilities can be challenging. He explains, “I have to be very organised. There is a specific time for each work. I want to make the echo lab of Hospital da Luz the biggest and best in Portugal, providing excellence in its clinical work and its scientific research, and will seek European lab accreditation for it.”

Apart from working at Hospital da Luz, Professor Cardim also works as the scientific director of the Portuguese Red Cross School of Health (Escola Superior de Saude da Cruz Vermelha Portuguesa) in Lisbon. He says, “I am responsible for the teaching of cardiology in undergraduate areas and also of the graduate activities like masters, teaching courses, and postgraduate courses. I am involved in planning a PhD or masters course in multimodality cardiac imaging. One has to decide which is the best test for each patient.”

“The First Portuguese Echo Manual Will Be Published Soon”

Professor Cardim has contributed not only to the development of echocardiography in his country, Portugal, but he is also involved with the European Association of Echocardiography (EAE). He comments, “I am proud and happy to be in the group. I consider it a challenge to contact people from new countries in Europe to explain to them the aims of EAE, how the EAE can help them, and how they can help the EAE. Through my position in the EAE—as a councillor in the National Societies and Working Group Committee—I will be able to increase the significance and strength of Portuguese echocardiography in Europe.” He adds, “For a long time Portuguese echocardiography outside the country was centralised on 1 or 2 people, and only they were invited to participate in meetings, chair sessions, and write book chapters abroad. Over the past 3 years the situation has begun to change. Now we have Portuguese cardiologists who write books. In fact, the first Portuguese echo manual will be published soon. This book is written by 20 Portuguese experts in echocardiography, and I am going to be the editor. We also have Portuguese members in the EAE.”

Talking about his role as chair of the Working Group of Echocardiography of the Portuguese Society of Cardiology, Professor Cardim says, “my major task is to promote Portugal in the EAE. I wish to fly high, but I also hope my colleagues will fly high with me.”

To the young generation of clinicians who want to follow in his footsteps, Professor Cardim says it is “90% perseverance and hard work, 10% genius. Try to give the best of yourself and be involved in everything you do, from the smallest to the biggest thing, with passion.”

Reference


Marilou Davis is a freelance medical journalist.