

Heart Failure Training

A Call for an Integrative, Patient-Focused Approach to an Emerging Cardiology Subspecialty

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The coming years will see continued growth in the epidemic of heart failure (HF) and increasingly complex pharmacologic, interventional, and device-based therapies, effective in reducing HF morbidity and mortality. Highly trained clinician-specialists are needed to assist in optimally evaluating and managing patients with HF. The patient is the central element defining the skills needed within this cardiology subspecialty. Primary care education, disease management strategies, and effective communication among HF specialists and other clinicians are key systemic elements needed to deliver the increasingly complex array of treatments to the expanding population of patients with HF. (J Am Coll Cardiol 2004;44:1361-2) © 2004 by the American College of Cardiology Foundation

Heart failure (HF) is a growing epidemic in the U.S., owing to the aging of our population and the increasing survival of patients presenting with a large myocardial infarction. It was recently estimated that 5 million patients in the U.S. carry the diagnosis of HF, with 550,000 new cases per year, representing the primary diagnosis for approximately 1 million hospital discharges in the year 2001 (1). Over the past decade, we have seen an explosion of new treatment options for patients with HF, with a documented benefit on clinical outcome. Numerous new approaches, including drugs, devices, and surgical approaches, are being explored and are likely to markedly increase the complexity of optimal care during the coming decade. The expanding patient population, coupled with rapid growth in information and treatment options, demands the recognition of HF as an essential and well-defined subspecialty of cardiology. The subspecialty of HF should focus on the patient and the disease, incorporating a deep and broad understanding of all available diagnostic and treatment modalities.

Over the past 15 years, the role of drug treatment has progressed from mere palliation to substantial opportunity for improvement in natural history. The numerous novel treatment targets being defined today will likely translate into further growth in our pharmacologic treatment options. In addition, devices will represent a growing part of our therapeutic armamentarium. Improved clinical outcomes have already been demonstrated in selected populations with implantable cardiac-defibrillators (ICDs) and resynchronization pacing devices. Novel and more sophisticated devices will be developed to assist and/or unload the heart, and these devices will become easier to implant. Cardiac restraining devices hold promise as a means to prevent or reverse the process of adverse cardiac remodeling. Novel interventional approaches to optimizing cardiac structure

and valve function are being explored. Beyond the value of these individual devices, their investigation is teaching us an enormous amount about the pathophysiology of HF, which will doubtless lead to even more clinical advancement.

A highly specialized clinician will be needed to master the evaluation of the HF patient and selection of the optimal drug, device, or procedure, as well as the appropriate timing for such selection for the individual patient. Beyond drugs, devices, and procedures, the HF patient poses special challenges in care, requiring sophisticated disease management strategies, sensitive counseling, and timely application of palliative measures. The HF specialists must be expert in these areas as well.

The patient with HF is the central element that defines the complex skills needed by an HF specialist. The field of HF is unique among the subspecialties of cardiology, defined by the patient and the disease, rather than by technical skill. We should retain this definition as we move to clarify criteria for training and certification.

As the roles of procedural and device-based therapies continue to be defined, so will the degree to which technical training is considered for incorporation into the HF specialty. However, the ability to implant a pacing device or ICD is no more an essential skill for providing complex care to the patient with HF than is the ability to perform a coronary intervention in patients with coronary artery disease. Surgical referral will remain and undergo continued refinement as a treatment option for the patient with HF, as it has long been for patients with coronary artery and valvular heart diseases.

In exploring incorporation of selected technical expertise, such as ICD and resynchronization device implantation, into the subspecialty of HF, a number of disadvantages should be recognized. First, such focus inappropriately implies a unique value for these selected procedures for the patient with HF. Other procedures, including those directed at revascularization, valve repair, ventricular reconstruction, and cardiac assist and unloading, will likely play

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Abbreviations and Acronyms

ACC	= American College of Cardiology
HF	= heart failure
HFSA	= Heart Failure Society of America
ICD	= implantable cardiac-defibrillator

major roles in the coming years. We cannot expect the HF specialist to master performance of each of these procedures. Second, routinely incorporating such procedural competencies for the individual who is managing patients with HF will have the effect of driving the performance of such procedures, potentially beyond a rate justifiable by the evidence. Finally, and most importantly, mandating a high level of technical skill within HF training programs may turn away from this field those individuals who are most needed: cardiologists whose principal interest is diagnosis and patient management, including appropriate selection and timing for procedures, and the humanistic skills needed to care for the patient with this complex condition.

Nevertheless, consideration should be given to encourage HF specialists who have a special interest in developing technical skills. Such a dual skill set may be attractive both to individuals and to institutions. Furthermore, the patient may naturally prefer that the clinician who performs a procedure is one who has already achieved that patient's trust, rather than a technical specialist. Such training opportunities may be achieved through programs of special competency (e.g., in ICD and resynchronization implantation) offered to HF specialists. It is possible that the desirability will emerge for a "dual track" in HF training, one incorporating special procedural competencies. However, the first step should be to establish criteria for training in the subspecialty of HF, which should not require complex procedural competencies beyond that of general cardiology training.

All of the skills obtained through general cardiology training are invaluable as an underpinning for subspecialization in HF. This fact poses a dilemma in developing systems of care to meet the needs of the expanding patient population, which cannot be managed entirely, or even predominantly, by HF cardiologists. The solution to this problem will comprise: 1) more sophisticated, guideline-driven educational efforts directed toward primary care providers; 2) more effective disease management strategies; and 3) more efficient systems of referral and communication, with sharing of care management between the specialist and primary care provider.

A number of obstacles stand in the way of elevating the discipline of HF to that of a recognized subspecialty of cardiology and encouraging its growth. First, the American Board of Internal Medicine (ABIM) has been slow to recognize new subspecialties that center on patient care, rather than technical competencies. The Heart Failure Society of America (HFSA), working with the American

College of Cardiology (ACC), should take the lead to clarify the need for certification in this field and to define the skill sets required for providing complex care to the patient with HF.

Second, reimbursement for specialists whose focus is patient care falls short of that for procedure-based specialists. This situation has produced a paradox of dissuading cardiologists from choosing HF as a career, despite enormous academic interest by cardiology trainees (as evidenced by the recent HFSA "Fellows Symposium"), and despite a growing demand for experts in this field. The solution will come, not through HF specialists performing more procedures, but through recognition of the financial value of an HF program to an academic or private cardiology group and to a provider institution. Offering excellence in care for complex patients with HF should yield a substantial amount of appropriate "spin-off" value in procedural professional and technical revenue, while maximizing cost-effectiveness. Recognizing and prospectively quantifying this value, as well as providing parity to the HF specialist accordingly (regardless of who performs the procedures), will markedly increase the attractiveness of this field. Toward this goal, the HFSA has initiated a dialogue with the Association of Professors of Cardiology, seeking to establish norms for clinical relative value units associated with the nonprocedural practice of complex HF management.

In health care, as in any industry, demand should drive change. Based on the growing patient population and the growing complexity of diagnostic and treatment options, the time has come for establishing clear criteria for HF training, for codifying the field of HF as a patient-focused subspecialty of cardiology, and for encouraging cardiology trainees in this direction. It is time for the HFSA and the ACC to initiate steps toward achieving these goals.

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REFERENCE

1. American Heart Association 2004. Heart disease and stroke statistics—2004 update. Dallas, TX: American Heart Association. Available at: www.americanheart.org. Accessed July 28, 2004.

APPENDIX

Executive Council of the Heart Failure Society of America: Marvin A. Konstam, MD; Gary S. Francis, MD; Barry H. Greenberg, MD; John E. Strobeck, MD, PhD; Milton Packer, MD; Kirkwood F. Adams, Jr., MD; Susan J. Bennett, DNS, RN; Michael R. Bristow, MD, PhD; Jay N. Cohn, MD; Wilson S. Colucci, MD; Uri Elkayam, MD; Harlan M. Krumholz, MD; Peter P. Liu, MD; Douglas L. Mann, MD; Ileana L. Piña, MD; Hani N. Sabbah, PhD.