



## Editor's Page

## An Impending Physician Shortage: Implications for Structural Heart Disorders

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There is general agreement that a physician shortage will occur in the next decade and may already exist. The Association of American Medical Colleges published the results of an in-depth independent examination of the future needs for medical manpower in 2021. That report predicted that a shortage of between 37,800 and 124,000 physicians would occur by 2034. The American Hospital Association similarly forecast a deficit of 124,000 physicians by 2033. Although the greatest deficiency would be primary care physicians, both medical and surgical specialties were also predicted to be affected. Clearly, this has significant implications for the management of structural heart disease.

The cause for the physician shortfall is multifactorial. The greatest factor impacting medical manpower is an increasing population, with the greatest increment being among the elderly. Of course, the need for medical care is greatest among the elderly. Physicians are also aging, and it is estimated that the time is rapidly approaching when nearly 40% of physicians are 65 years of age or older. Increasing regulation and the need for documentation are often cited as important stimuli to early retirement. Another important contributor to a doctor shortage is burnout. While the reasons for the surge in burnout are also multiple, the net result is a reduction of providers. Finally, there is an increasing demand for and availability of additional medical services. The many innovative percutaneous procedures to treat structural heart disease certainly contribute to the growing services available to patients.

The multiple factors responsible for an impending physician shortfall provide a variety of targets to prevent it. Considerable efforts are being made to reduce physician burnout and enhance the satisfaction of medical practice. Talks are underway to increase opportunities for medical education as well as subsequent postgraduate training. However, I believe one factor of importance to the issue of manpower, and one especially relevant to structural heart disease, is the length of training required for specialization.

The duration of training to qualify for specialization encompasses both the preparatory training and the time required to acquire the requisite skill and expertise in the specialty. Much has been said about the necessity for residency training in areas that will not be practiced to any significant degree after entering the primary specialty. How much

knowledge and experience with cancer chemotherapy, or dialysis, or heart transplant is necessary and beneficial to someone who will not specialize in those areas? That is a question that clearly pervades all of medicine. However, within the field of cardiovascular disease, we can ask ourselves how many years of fellowship is necessary for someone who is primarily dedicated to one of the subspecialties?

The usual way in which the time required to achieve certification in a specialty is determined is by the consensus of the specialists in that field. For cardiology, opinions regarding the requisite training (often procedures) in imaging, intervention, electrophysiology, etc. are solicited from those practicing in those areas. The natural inclination is for us to feel that it would require a great deal of training for someone to achieve the competence that I have. If one then adds up all the estimated training time needed for certification in each of these subspecialty areas, it is very long. Disagreements often exist, and compromise is necessary. Little account is made for the fact that some individuals acquire knowledge or skill much faster than others. In the end, the process is imperfect but the best one possible.

So, how does this apply to structural heart disease? In my institution, a candidate for specialized training in structural heart disease typically requires 2 years of internal medicine, 3 of general cardiology, 2 of general interventional cardiology, and a final year of structural heart disorders. I believe that this is the most common course followed at other institutions. That is 8 years of training after medical school. One potential way to increase the number of practicing physicians and the length of their careers would be to shorten the training period, which would be best done by eliminating education in areas in which they will have little or no participation. How much time does a structural specialist need to spend with internal medicine specialties, or even the ablation of atrial fibrillation or reopening of complete coronary occlusions. The same issues apply, of course, to surgical trainees.

Quite obviously I do not have the answers to the questions I am posing, nor am I the first one who has ever posed them. However, we may be entering a novel period in which the convergence of several factors can result in severe physician shortages. Therefore, the motivation to optimize the period of training required for specialization is particularly great. Structural heart disease specialization is just one example of a

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specialty that requires very long training, but I believe a very good one. In addition, the breadth of structural heart disease practice is rapidly increasing, and the field is sufficiently new to not have policies cast in bronze. So I urge those in charge of structural training programs to determine what is absolutely essential to acquire the requisite skills, and those in charge of broad certification to determine how much preparatory training is necessary.

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