Cardiovascular Revascularization Medicine 20 (2019) 931–932

Contents lists available at ScienceDirect

Cardiovascular Revascularization Medicine

The Last Word with Spencer King

Do We Know What Interventional Cardiology Training Should Be?

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Looking forward is sometimes improved by first looking backward. I know this is dangerous territory in the current political season, when experience seems to be a liability, all of the candidates are younger than I, and several are younger than my children. I do, however, agree that things are changing rapidly, and we need fresh, new ideas. It is true for the training of cardiologists and, certainly, for our specialty of interventional cardiology. When I finished my two years of internal medicine residency, I entered into a one-year direct mentorship under Dr. Bruce Logue, a legendary clinician. Because my interest was in catheterization, I next spent a year in the cath lab under Dr. Robert Franch, a rare adult cardiologist who was a wizard in congenital heart disease. For that year, I catheterized the spectrum of pediatric and adult congenital heart disease patients along with those with acquired heart disease (mostly from complications of rheumatic fever). Then I was finished, and I went into practice as an expert in cardiology. That was it. I never performed a coronary arteriogram in training, as my program had not yet launched a coronary bypass surgery program. We learned and became competent in what there was to become competent in at that time.

Now we struggle to define training that is needed to become a competent cardiologist and an interventional cardiologist. Three years of cardiology and one or two more of interventional cardiology is where we are now. Where should we be?

Each of the major meetings seem to have a session on the needs for training programs and ongoing education. I recently chaired such a meeting of program directors at the Complex Cardiovascular Catheter Therapeutics: Advanced Endovascular and Coronary Intervention Global Summit (C3) conference in Orlando. There were program directors from the United States but also from other countries, including Canada and the United Kingdom. Despite recent Core Cardiovascular Training Statement (COCATS) documents from the American College of Cardiology and other misses, there was a wide variety of opinion on how interventional cardiologists should be trained [1]. Everyone recognized that the future interventionalist is unlikely to be a master of competence in all aspects of the discipline. Practices have begun to subdivide the subspecialty. Peripheral vascular interventions, structural heart interventions, and even complex coronary intervention have their own champions. The emerging field of neurointerventions in acute stroke therapy, along with the role of interventional cardiologists in this endeavor, is in its infancy. According to the Accrediting Council for Graduate Medical Education (ACGME), we should be assessing competence in the various aspects of the discipline rather than time or volume of activity. Easier said than done. Can it be evaluated independent of time spent and volume of experiences?

How will we train the interventional cardiologists of the future? Will fellows have to select their area of interest from the onset of training and concentrate on coronary, structural, or peripheral interventions? Will there be jobs for all these sub-sub-specialists? Will there be adequate volume for all those interested? How will competence be achieved and maintained? Many of our graduates will practice interventional cardiology as part of a general cardiology practice. These general/interventional cardiologists are necessary to care for the large number of patients who do not have other primary care physicians, and they are essential if we are to have adequate coverage of ST-elevation myocardial infarction calls to intervene in emergencies. If most of their practice is outside the cath lab, should training reflect that? Should the dramatic advances in medical therapy for cardiovascular disease also be a competence to be mastered and maintained? Who will manage diabetes, advanced lipid abnormalities, hypertension, and heart failure? In the UK, requirements for rotation in general cardiology are becoming part of interventional cardiology training; however, concerns were raised about cutting into the time that is available for procedural training. A minority of participants felt that one year of training with exposure to all aspects of interventional cardiology was enough. Most, however, favor requiring a second year if structural heart disease is to be mastered or if a significant peripheral experience is needed.

https://doi.org/10.1016/j.carrev.2019.08.007
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I will ask the question: do our fellows master any of these things during their training? The real test comes when flying solo without the instructor. Most advanced expertise comes with practice experience. I encourage all new graduates entering a practice to lean on their senior colleagues in the beginning. No matter how good you think you are, you will get better. Many of you will evolve over your time in practice. New skills not yet discovered will need to be mastered by some. My last years in the cath lab involved skills and judgments that had little to do with those I learned in training. Evolution in essential and improved educational methods to achieve and maintain those new skills will be important.

For my original question – the training needs to adapt, and the societies and the certifying bodies, but perhaps most importantly, the credentialing authorities (usually the hospital), need to consider that competence in one aspect of interventional cardiology does not convey competency in all aspects. Training programs and continuing education endeavors need to be tailored to meet the needs of the practitioner and the roles they are playing in providing expert interventional cardiology care. It is much easier to ask these questions than to answer them, but for the sake of our patients and the specialty, they must be addressed.

Reference

[1] King III SB, Babb JD, Bates ER, Crawford MH, Dangas GD, Voeltz MD, et al. COCATS 4 Task Force 10: Training in Cardiac Catheterization. J Am Coll Cardiol 2015;65:1844–53.