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President's Message

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Now Is the Time for Certification in Cardiac Anesthesia

Christopher A. Troianos, MD FASE, SCA President

Cardiac anesthesiology is a widely recognized subspecialty within modern-day anesthesiology. It is hard to identify the original description of cardiac anesthesia, as the subspecialty emerged and evolved over time, as anesthesiology in general also was evolving. Although descriptions of surgery on the heart can be found earlier, one of the earliest descriptions of anesthetic management during cardiac surgery appeared in the U.S. literature in 1946. Harmel and Lamont reported their observations and provided recommendations on the anesthetic management of 100 patients undergoing the Blalock-Taussig operation.[1] Additional descriptions of anesthetic considerations and techniques appeared in the late 1940s and early 1950s for cardiac surgeries performed on beating hearts and with mechanical or assisted ventilation. Keown and colleagues reported their experience with the anesthetic management of patients undergoing mitral commissurotomy with hypothermia and recommended intraoperative electrocardiographic monitoring because of tachyarrhythmias that often led to pulmonary edema.[2] A major advancement in cardiac surgery was the use of

cardiopulmonary bypass described by Gibbon, who closed an atrial septal defect under direct vision.[3]

The subspecialty of cardiac anesthesiology developed because of the unique physiologic, technologic, and collaborative approach to patient care required for successful outcomes and process improvements.[4] Patients presenting for cardiac surgery have “end-stage” cardiac disease, which creates unique physiologic conditions on the heart that are optimally managed by an anesthesiologist who has an understanding and experience managing this physiology and the associated anesthetic implications. Either by training or clinical experience, these anesthesiologists commonly know how to prevent, treat, and rescue patients from hemodynamic perturbations that are potentially life threatening.

Cardiac anesthesiology has evolved to include numerous monitors and devices to address the unique challenges of the environment. The most obvious and significant evolution has been the advent of perioperative transesophageal echocardiography (TEE). In contrast to the early use of TEE, this service is now almost exclusively provided by anesthesiologists. But cardiac anesthesiology involves so much more than echocardiography. Cardiac anesthesiologists manage anticoagulation, cardiac electronic devices, circulatory assist devices, and even perform percutaneous cannulation for extracorporeal circulatory support at an expanding number of institutions.

Recognizing the unique aspects of caring for patients undergoing cardiac surgery, the Accreditation Council for Graduate Medical Education (ACGME) began accrediting cardiac anesthesiology fellowship training programs more than 10 years ago, and the number of accredited programs has grown to more than 65 programs in 2019. Graduates of these programs, however, do not have a way to demonstrate their mastery of this unique subject matter and skills beyond a letter from their program director indicating completion of the program. Clinicians in practice for many years who may or may not have completed a formal fellowship also do not have a way to demonstrate their competence to institutions who require such documentation for credentialing purposes.

Given the specialized knowledge, expertise, and formal ACGME fellowship training now available, it is time to once again consider another formal application for board certification, which would be a significant milestone to recognize our subspecialty. Although a previous application to establish board certification in 2012 was not accepted, 7 years have elapsed, and the subspecialty and practice has further evolved, increasing the need for board certification. Cardiac anesthesiologists have a more important and established role in the perioperative care of patients undergoing cardiac and non-cardiac surgery, and serve as primary providers or consultants in the management of surgical patients in many critical care units.

Although many cardiac anesthesiologists are proficient at providing intraoperative TEE services, only half of anesthesiologists who passed the National Board of Echocardiography (NBE) Advanced Perioperative TEE (PTE) examination since 1998 are PTE board certified. Practice volumes have diminished in many institutions for a variety of reasons, so individual cardiac anesthesiologists who passed the PTE written examination may not have the requisite case logs for PTE board certification or recertification. These individuals have no certification whatsoever to distinguish their unique practice, knowledge, and skills.

The key to developing a new subspecialty certification is to demonstrate how certification in cardiac anesthesiology serves the public and the medical profession by improving the quality of health care through setting professional standards for certification. Qualified diplomats who by virtue of either formal training or years of clinical experience, should be able to demonstrate that they possess the specialized knowledge, skills, and attributes to become a Diplomat of a recognized specialty board.

What about practicing cardiac anesthesiologists who passed the PTE exam, yet do not have the case logs during the past 4 years to become PTE board certified by the NBE? One possibility might be to expect that a cardiac anesthesiology board certification require fewer TEEs than the current NBE requirements for perioperative TEE board certification. However, the PTE knowledge requirement could be the same (ie, successfully pass the NBE's PTE examination, which is considered the gold standard in this space). It also could mean that if an anesthesiologist already successfully passed the PTE examination, they would only have to pass a non-echo cardiac anesthesia exam to demonstrate mastery of the entire knowledge base required to practice cardiac anesthesia.

The inclusion of those practicing cardiac anesthesia for many years regardless of formal ACGME-approved fellowship training will be key to a successful launch of any certification program as standards are established for this subspecialty. Cardiac anesthesia has highly evolved since Harmel and Lamont's description of their anesthetic considerations and technique in 1946. It's about time the subspecialty was formally recognized with board certification, so that the general public and institutions can best identify anesthesiologists who are most qualified to care for patients undergoing cardiac surgery. The time is now!

Our next annual meeting is only 3 months away! Make your plans now to join us in Chicago, May 18–21, 2019. Workshops are filling fast and discounted registration will expire on March 8, 2019, so register now and secure your room in the Windy City. I hope to see you there!

References

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