Future of Anesthesiology Is Perioperative Medicine

A Call for Action


Currently, the American healthcare system is undergoing significant changes in response to healthcare reform legislation such as the Affordable Care Act of 2010, as well as market forces and the ongoing maturation of the American healthcare industry. This evolution is consistent with the changes that have occurred in other industries such as agriculture, travel, and aviation.

Over the past decades, anesthesiologists have continually expanded their focus from the operating rooms to postanesthesia care units, intensive care units, and pain medicine. In parallel to the expansion of the clinical footprint of our discipline, the core training curriculum of anesthesiology residency has changed significantly to now include many nonoperating room anesthesia rotations.1 This development is not unique to the United States, and many other countries such as the United Kingdom, France, Germany, and Australia have developed strategies to increase the role of anesthesiologists in perioperative medicine.1 In a recent editorial in the British Journal of Anaesthesia entitled Anesthesiology and Perioperative Medicine around the World: Different Names, Same Goals, some of us argue that “regardless of what the model is called around the globe, we have to embrace our expanded role as perioperative physicians as our main value proposition.”2

A proposal raised at the 2014 annual meeting of the Society of Academic Anesthesiology Associations (SAAA) is the impetus for this editorial, which was written by Chairs of Anesthesiology Departments who also serve as members of the executive committee of SAAA. The SAAA annual meeting was attended by 498 representatives of 124 academic anesthesiology departments (including chairs, program directors, and subspecialty fellowship directors who are the constituent members of this association). During a general session of the SAAA annual meeting, Dr. Kain, the first author of this editorial, proposed the motion to formally change the name of our specialty. There was healthy discussion on both sides of the issues, with active participation by department chairs, residency program directors, and fellowship program directors. After the discussion, an informal show of hands was overwhelmingly in favor of the proposal. After the meeting, a survey was sent to the SAAA general membership (N = 500) asking, “Do you approve or oppose a resolution to the American Society of Anesthesiologists (ASA) Board of Directors to change the name of our specialty to Anesthesiology and Perioperative Medicine (from Anesthesiology)?” There were a total of 189 responses (38%): 172 (91% of the respondents) were in favor and 17 opposed (9%). Although SAAA does represent the academic leadership of our specialty, any change in the name of our specialty will require consultation and approval by multiple stakeholders such as the American Society of Anesthesiologists (ASA), American Board of Anesthesiology and the Accreditation Council for Graduate Medical Education (ACGME). The chief aim of this editorial is to present a proposal and rationale for changing the name of our specialty from “Anesthesiology” to “Anesthesiology and Perioperative Medicine” and to advance the process of discussions among all these stakeholders.

Over the past few decades, the specialty of anesthesiology has expanded its practice from being largely confined to the operating room to include perioperative medical practice in acute pain medicine, postoperative and intensive care...
### Table 1. Proposed Competencies for the Perioperative Surgical Home

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<th>American College of Graduate Medical Education Competency</th>
<th>PSH-Specific Subcompetencies</th>
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| Patient care EBM-based preoperative risk reduction and optimization strategies (e.g., β blocker, statin, anemia corrections; carbohydrate loading)  
Practices EBM intraoperative management (goal-directed therapy, glycemic control, normothermia)  
Practices EBM postoperative management and EBM enhanced recovery strategies (e.g., early mobilization, venous thromboembolism prophylaxis, wound and skin care, urinary catheter removal)  
Primary consultant in general medical issues that commonly present in surgical patient population |  
| Patient care (technical skills required)  
Electrocardiogram—advanced interpretation skills  
Surface ultrasound (ultrasound point of care)  
Pulmonary function tests including advanced interpretation skills  
Coronary artery stents management including perioperative management of anti-platelet therapy  
Cardiac pacemakers management including bedside interrogation  
Implantable cardioverter defibrillators management including bedside interrogation  
Insulin pumps management including rate adjustment  
Intrathecal pumps management including interrogation and refilling  
Thoracostomy tube placement |  
| Medical knowledge (management includes preoperative evaluation and risk reduction as well as postoperative management should the complication occur)  
Congestive heart failure  
Diabetes  
Pneumonia  
Sepsis  
Chronic obstructive pulmonary disease  
Acute kidney injury  
Urinary track infection  
Venous thrombus embolus  
Stroke  
Asthma  
Acute coronary syndrome  
Delirium  
Goal-directed therapy and blood management  
Deep vein thrombosis  
Acute renal failure  
Skin and wound breakdown  
Postoperative prevention/management falls  
Myocardial infarction  
Prevention of “failure to rescue”  
Basic postoperative principles/need: Physical therapy, alternative pain techniques |  
| Practice-based learning and improvement  
Ability to evaluate EBM application: Biases in clinical trials, validity, emphasis, and critical evaluation for practice  
Ability to improve own practice through continuous quality management tools: Practice assessment: dashboards, practice improvement plans  
Use of practice guidelines, parameters in own and relevant specialties (e.g., surgery care improvement process), in evaluating practice outcomes  
WHO Safe Surgery checklist implementation  
Understanding of practice model such as PSH, accountable care organization, and enhanced recovery after surgery  
Disruptive technology, change management  
Understands current payment models (e.g., bundled payments, acute care episode, gain sharing) |  

(Continued)
unit care, chronic pain medicine, and sleep and palliative care medicine. In recognition of this expansion, currently, the American Board of Anesthesiology and ACGME certify graduates for fellowships in critical care, chronic pain, pediatric anesthesia, cardiothoracic anesthesia, obstetric anesthesia, palliative care, and sleep medicine, and will do so for regional anesthesia/acute pain medicine management by 2016. In parallel, the core requirements of anesthesiology residency training programs have changed to include approximately 20 months of nonoperating room rotations of a possible 48 months of training.

In recognition of the growing role of anesthesiologists outside the operating room, many academic anesthesiology departments have expanded their name to include other terms. In preparation for this editorial, we examined the names of all the anesthesiology departments that are members of the SAAA. Of a total of 136 programs, 24.3% now include one or more of the terms such as perioperative, pain, or critical care to reflect their growing emphasis on perioperative medicine.

The contemporary landscape of health care in general and the perioperative environment in particular has provided the discipline of anesthesiology an even stronger impetus to expand the name of our specialty to reflect the broadening of our involvement in perioperative medicine.
ACGME core competencies with respect to the PSH and the potential demands on future anesthesiologists. This ASA educational taskforce identified at least 57 elements in 7 domains that need to be enhanced or added to the traditional anesthesiology residency curriculum and training requirements (table 1). Although anesthesiologists are currently uniquely trained in preoperative and intraoperative medicine, the current anesthesia training curriculum does not sufficiently emphasize postoperative oversight of surgical patients outside the areas of pain medicine and intensive care medicine. Furthermore, most postoperative complications are medical in nature and include the management of diabetes mellitus, pulmonary embolism, delirium, cardiac events, stroke, and acute kidney and lung injury. Clearly, current anesthesiology residency curricula will need to be adjusted in these areas.

Possible changes in the structure of anesthesia training that would be required to realize our enhanced role in perioperative medicine range from (1) increasing the number of out–of–operating room rotations while keeping the current length of the residency training duration (base year plus 3 yr) to (2) lengthening the residency training (base year plus 4 yr).

Although the option of not lengthening the residency training is appealing, it is not clear what current rotations could be eliminated to accommodate newly introduced perioperative rotations. Thus, the option of lengthening the residency could be considered because the additional 12 months will allow the introduction of new rotations and the expansion of the current curriculum to include skills in patient safety as well as quality management such as Six Sigma and Lean training.

Another option would be to offer two tracks within the existing residency programs with one traditional 4-yr track and one newly introduced 5-yr track that will focus the additional year on perioperative medicine. Trainees who plan on clinical fellowships might choose the 4-yr track followed by a clinical fellowship, whereas other trainees would choose the 5-yr track with increased experience in perioperative medicine. Clearly, wide ranging discussions with the multiple stakeholders mentioned previously (vide supra) would be required before such changes could be made.

In conclusion, the intent of this editorial is to foster a national discussion about adding the term “Perioperative Medicine” to the specialty name of Anesthesiology and augmenting current training programs. This discussion is consonant with developments that have occurred in other fields of medicine. Thus, we submit that the specialty of “Anesthesiology” plan to rename itself to the specialty of “Anesthesiology and Perioperative Medicine” and do so with some speed.

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Competing Interests
Dr. Kain is in the Advisory Board of Surgical Information Systems, Atlanta, Georgia, and in the Speakers Bureau for Merck (Kenilworth, New Jersey) (conflict of interest is for 36 months). All authors are members of the Executive Committee of the Society of Academic Anesthesiology Associations, Chicago, Illinois.

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References