

PERIOPERATIVE MEDICINE *and* THE FUTURE *of* ANESTHESIOLOGY TRAINING

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It is impressive to see a graduating anesthesiology resident culminate years of education and training in the O.R. Paralleling a highly trained magician, a physician anesthesiologist can innately and concurrently manage the many medical and interventional nuances of providing anesthesia for a major surgical case with confidence and precision. In stark contrast to that intraoperative prowess, when faced with a preoperative blood sugar of 300 in a brittle diabetic, that same anesthesia physician is instinctively wired to cancel an elective case and allocate that patient to another medical specialty for “optimization.” Likewise, how much of an emphasis do we place on training a physician anesthesiologist to readily diagnose a thromboembolic event on postoperative day two? Does our current training model place importance on a patient’s length of stay and educate on the intricacies of managing longitudinal care transitions after a surgical episode?

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A paradigm shift in training and ideology will position future physician anesthesiologists to take ownership for patients outside of the O.R. and act as consultants throughout the perioperative continuum.¹

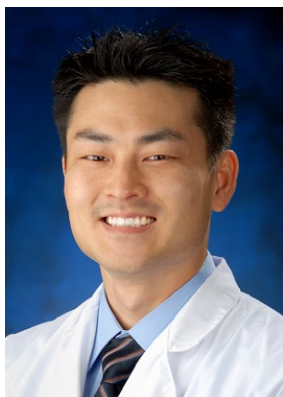
Unless faced with a compelling reason to change, human nature seeks to uphold the status quo.² Health care delivery in the U.S. exemplifies this idea. The traditional manifestation of perioperative services has prevailed to produce a fiscally unsustainable model that is now dictating change management. Total health care spending in the U.S. is projected to climb to \$4.8 trillion in 2021, up from \$2.6 trillion in 2010 and \$75 billion in 1970. To put this into context, health care spending will account for nearly 20 percent of gross domestic product (GDP), or one-fifth of the U.S. economy by 2021. Of total health care spending, a remarkable half (51 percent) goes to pay the cost of medical services provided by hospitals



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and physicians.³⁻⁶ Such staggering costs are clearly unsustainable and are a major impetus to enact transformative changes.

The current health care delivery model remains highly fragmented with inconsistent and poorly coordinated patient care.⁷⁻⁹ Much has yet to be done to curtail waste, redundancy and inefficiency throughout the perioperative continuum.⁸ With the need for change in the way perioperative services are delivered, the patrons of the health care industry are seeking to establish innovative approaches to address cost, quality and patient satisfaction.⁹ Such approaches include substantial fines for nosocomial infections and unplanned 30-day readmissions.¹⁰⁻¹² In addition, Hospital Value-Based Purchasing (VBP) programs are beginning to closely associate hospital performance with revenue.¹⁰⁻¹² Patient satisfaction surveys are of paramount importance and are being used as representations of the quality of care provided for patients and their families.¹³ Moreover, both public and private payers are transitioning to bundled payments for a surgical episode. In such a model, providers will need to effectively demonstrate the value and quality of care they provide.¹⁴

Referring back to the analogy of a resident expertly delivering an anesthetic but unable to preoperatively manage diabetes, one must re-examine the current curriculum if future anesthesiologists are to truly become perioperative physicians. Prior studies have demonstrated that medical consultation during the surgical episode may result in fewer complication rates and

decreased length of stay.¹⁵⁻¹⁶ Intuitively, detailed preoperative evaluation and “pre-habilitation” provide the opportunity to risk-stratify and meticulously optimize a patient prior to surgery.¹⁷ Likewise, patients with postoperative complications consume considerable resources and have increased morbidity and mortality.^{18,19} Well-recognized and potentially avoidable postoperative complications include pneumonia, venous thromboembolism, acute myocardial infarction, decompensated heart failure and wound infection.^{15-16, 18-21} Should they occur, prompt diagnosis and intervention for such critical events are essential. Moreover, an even more resourceful prospect exists for the perioperative specialist to be the ultimate patient liaison who coordinates the longitudinal “care transitions” between the hospital episode and the community.²² An education in perioperative medicine guided by best practices and evidence-based medicine would further strengthen the role of physician anesthesiologists as holistic perioperative physicians. This is precisely why expertise in perioperative medicine will allow a physician anesthesiologist to thrive.

The Perioperative Surgical Home (PSH) is one model that aims to address the problems facing delivery of perioperative health care services. The PSH aims to provide unified coordination of patient care, increase quality and cost-effectiveness, reduce complications, and ultimately enhance patient satisfaction. By definition, it is an innovative patient-

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centered, physician-led and team-based system of coordinated care.^{1, 7-9, 23-25} ASA is committed to the PSH model of care, as “each patient will receive the right care, at the right place and the right time.”²⁶ Internationally, models such as enhanced recovery after surgery (ERAS) are exemplified by positioning the physician anesthesiologist as the perioperative specialist.^{1,27} As such endeavors obtain momentum, one must not forget that a prelude to the decisive triumph of these models is obtaining a premier education in perioperative medicine.

The vision is simple: the traditional scope of practice for physician anesthesiologists must be redefined and broadened. As a prelude to this, resident education must also evolve to further incorporate perioperative medicine. Such evolution of resident education will enable future anesthesiologists to provide care throughout the entire perioperative continuum and beyond. We are already experts in critical care and pain management as well in perioperative patient safety. Moreover, we are fundamentally “comforters,” as we routinely triumph in the opportunity to relieve anxiety and alleviate pain and suffering. Now is the time to transcend into perioperative specialists who govern all aspects of the perioperative continuum. A transformation of current educational curriculum and milestones will be required for success. Indifference and stagnancy against the backdrop of the current health care landscape may relegate many physician anesthesiologists to providing intraoperative care only for the cases of highest acuity. If the foundation of skills needed to be perioperative experts are inconsistent and flawed with disparity, other keen and proficient specialties will surely triumph in the perioperative discipline. Such would be a tragedy for the anesthesia profession as well as for the surgical patient, as we would have missed a perfect opportunity to proactively persevere and methodically emerge as the natural leaders of the perioperative continuum. Perhaps Abraham Lincoln said it best: “The best way to predict the future is to create it.”

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