

2017

Perioperative Medicine and the future of Anesthesia

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Recommended Citation

Kennedy, Alvin (2017) "Perioperative Medicine and the future of Anesthesia," *Loma Linda University Student Journal*: Vol. 1 : Iss. 1 , Article 3.

Available at: <http://scholarsrepository.llu.edu/llu-student-journal/vol1/iss1/3>

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Anesthesiologists take pride in fostering safety and reducing avoidable patient harm. As the primary physicians during surgeries, they are in charge of how the patient responds pre-, intra-, and postoperatively. However, while harm directly attributable to anesthesia by itself is rare, there is arguably avoidable injury after certain surgeries, which emphasize the differences in what is actually obtained versus what is obtainable.

The number of surgical cases has been estimated at 250 million per year and has consistently been increasing due to economic progressions, technological advancements, and the characteristics of different populations (1). With this growth in the number of surgical cases, even a small decrease in the rate of avoidable harm would be associated with a substantial number of unnecessary injuries. Many of these avoidable harms are associated with differences in non-surgical components of perioperative care (2). Successful surgery is a key component for positive outcomes in surgical procedures, however, technical proficiency by itself is not adequate.

Traditionally, the care of surgical candidates has been tailored to the specific operation and the disease that is being treated by the procedure. This model, which is in place today, has shown to have a flaw in managing patients as a whole (2) with inconsistent and poorly coordinated patient care. Much has yet to be done to decrease waste, redundancy, and inefficiency throughout the perioperative stage. With the need for change in the way perioperative services are delivered, the health care industry is seeking to establish certain approaches to address cost, quality, and patient satisfaction.

The Perioperative Surgical Home is one such 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 reduce complications, and ultimately enhance patient satisfaction (3). The perioperative model that is conducted by multidisciplinary subspecialties done ahead of time takes precedence in the care for surgical patients. This requires interventions, such as medical management of the surgical candidate before, during, and after the surgical procedure. These interventions extend beyond the standard admission for surgery and are proven to reduce the harm and improve outcomes in patients (3). In addition to improved outcomes, these preparations have also decreased the cost and the number of days spent in the hospital after surgery (3).

Examinations and evaluations, offered by the perioperative physician, before surgery grants the patient an opportunity to review the planned intra-op management days ahead of the surgery itself. This opportunity has been shown to significantly reduce preoperative anxiety as well as expectations afterward (2). The use of resources is focused on necessary tests, referrals and cost management. Surprises are prevented on the day of surgery, which may delay the procedure while waiting for appropriate management, and to avoid the potential cancellation associated with the previously

unidentified medical conditions (4). The importance of this method increases the rate of outpatient surgery or same-day admission surgery increases.

It is the anesthesiologists who are best placed to lead the field of perioperative medicine due to an ideal combination of training, skills, and experience. There have been major changes in the past few decades in this field. Anesthesiologists have expanded their practices from being largely in the OR to now include acute pain medicine, postoperative and intensive care unit care, chronic pain medicine, and palliative care medicine. In parallel, the core requirements of anesthesiology residency training programs have changed to include approximately 20 months of non-operating room rotations of a possible 48 months of training (4). This allows Anesthesiologists to obtain a better understanding of hospital management as well as necessary patient care outside the OR and the hospital, which translates into better perioperative management of patients as a whole.

In conclusion, due to an increase in the number of surgeries expected with aging baby boomer population and the ability to decrease the amount of morbidity and mortality, Anesthesiologists are clearly the best placed to drive the development of perioperative medicine both nationally and locally. The success of the perioperative surgical home in the surgical setting can be used by anesthesiologists and their various support staff in order to coordinate patient care, increase quality and reduce complications, and ultimately enhance patient satisfaction.

References

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