"A Time of Opportunity": Patient Safety and the Perioperative Surgical Home

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The Perioperative Surgical Home (PSH), as defined by the American Society of Anesthesiologists, strives to achieve the triple aim of a better patient experience, better health care, and reduced expenditures for all patients undergoing surgery and invasive procedures. The PSH is a patient-centered, physician-led, interdisciplinary, team-based system. The PSH coordinates care throughout a continuum extending from preprocedure assessment through the acute care episode, recovery, and postacute care both within and outside the acute care facility.[1] The goal is for each perioperative patient to receive the right care at the right place and at the right time, with better patient satisfaction, fewer complications, and decreased costs. Although not explicitly stated, patient safety will be enhanced in pursuit of a better patient experience.

Striving to bolster patient safety is a defining characteristic of anesthesiologists, and our "culture of safety" enables us to lead PSH programs.[2] Because our specialty considers practice models that expand our presence into nontraditional settings of care, our overarching goal in this quest is to improve the value proposition; higher quality at a reasonable cost. Crucial to improving quality will be the implementation of processes that improve patient safety. Is there a specialty in medicine that is better suited to advance patient safety initiatives than Anesthesiology?

In their thoughtful commentary, Prielipp et al[3] suggest a pause to consider whether the disruptive innovation that is now needed may be different from that offered by the PSH. In response to reports in this issue of *Anesthesia and Analgesia*, we will consider whether the preoperative elements of the PSH model represent a better opportunity to promote the patient safety agenda.

Chow et al[4] investigated how electronic care coordination through e-mails among their preoperative clinic, other specialists, and surgeons can improve cross-communication and advance the aims of the PSH triad through achieving patient-centered, value-enhanced quality and safety outcomes. They conclude, "anesthesia management was the element of care found to be potentially impacted the most, as it could be influenced by issues such as severe cardiopulmonary disease, history of anesthesia complications, and history or predictors of difficult intubation, etc. Although the information communicated could be gathered from preoperative review of the patient's medical record, survey of the anesthesiologists revealed that many found the directed emails to be helpful in highlighting critical information, especially clarifications and recommendations from other specialists. Thus, while it cannot be determined definitively whether the anesthesia plan would have been altered if the emails were not sent, we contend that by flagging critical information affected clinical decisions regarding these aspects of care. The care coordinating emails served to promote patient safety and operating room efficiency."

In a systematic review, Roughead et al[5] investigate how patients search the Internet for accessible nil per os guidelines for presurgical preparation. Their study demonstrates that the majority of Internet resources on perioperative fasting provided recommendations that were inconsistent with current guidelines and that these resources generally had poor quality and readability. Most concerning, however, was that health care institutions were most likely to make inaccurate recommendations and unlikely to encourage preoperative hydration, despite the well-documented benefits.

A brief report from Vetter et al[6] describes that, by implementing a pilot program of a Preoperative Patient Clearance and Consultation Screening Questionnaire, they were able to provide greater clarity on the amount of time needed for preoperative clearance by the anesthesiology service before actually scheduling the date for surgery, as well as provide a better indication for additional preoperative evaluation and management services by an anesthesiologist. Implementation of the questionnaire resulted in a tentative 21-day advance surgery date and a priority preoperative assessment, consultation, and treatment clinic evaluation. This allowed the anesthesiologist to determine whether a patient's clinical condition was optimized to permit scheduling of a surgical procedure and, if not, request assistance in managing the preoperative care of comorbidities (eg, assessing and managing underlying clinical conditions, such as coronary artery disease, chronic obstructive pulmonary disease, asthma, and diabetes mellitus).[6]

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Accepted for publication July 12, 2016.

Funding: None.

The authors declare no conflicts of interest.

Reprints will not be available from the authors.

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DOI: 10.1213/ANE.0000000000001598

The articles cited above in this issue of *Anesthesia & Analgesia* emphasize how collaboration across the continuum of care within the specialty and other affiliated services within a hospital, adherence to established evidence-based guidelines, and preoperative optimization and planning all advance the triple aim and improve patient safety.

It is this very topic of "Patient Safety" that has recently been a significant issue of concern to many in the medical community. We bring to your attention a number of medical journal reports and articles emphasizing the importance of patient safety and the current lack thereof. To wit, medical errors are now considered the third leading cause of death in the United States; most errors represent systemic problems, including poorly coordinated care, fragmented insurance networks, the absence or underuse of safety nets, and unwarranted variation in physician practice patterns that lack accountability.[7] The authors conclude that developing protocols that streamline the delivery of medical care and reduce variability can improve quality and lower overall costs in health care.[7]

A longtime crusader for patient safety has been Dr Don Berwick.[8] In his recent Viewpoint article published in the *Journal of the American Medical Association* (*JAMA*), Dr Berwick focuses on ensuring that health care leaders establish and maintain a culture of safety, 1 of 8 recommendations made in a recent report released by the National Patient Safety Foundation entitled "Free From Harm: Accelerated Patient Safety Improvement 15 years After "To Err is Human."[8] Dr Berwick comments that a recent analysis suggests that 13% of harms occurring in hospitals are substantial, requiring prolonged hospital stays or life-sustaining treatment or involving permanent harm of death.[9] The National Patient Safety Foundation report calls for total systems safety to reduce harm, to establish, among other things a culture of safety, as well as robust error reporting and analysis. The authors suggest that a safety culture encourages honesty, fosters learning, and balances individual and organizational accountability, while simultaneously providing the leadership essential to creating and sustaining such a culture.

Dr Pronovost,[10] another stalwart protagonist of the patient safety movement, discussed the need to improve measurement of health care-related outcomes as a way to enhance patient safety. Dr Pronovost contends that valid patient safety measures are lacking in the health care industry, and without systematic, real-time data on adverse events with timely feedback to clinicians and health care organizations, improvements in patient safety will be arduous and slow.[10] To address this parlous state of affairs, Pronovost suggests that the Center for Medicaid and Medicare should focus on the most common and clinically meaningful causes of harm and should use clinical data to monitor and report the validity of the measures. Pronovost confirmed that one of the most common causes of iatrogenic harm to hospitalized patients is surgical complications; he argues for the development of a standardized set of validated metrics for high-value care and the necessary resources for systems engineering research to develop and promote efficient, safe care.[10]

Porter,[11] a relentless campaigner for high-value care, has recently discussed how to decide on the relevant outcomes to measure for any medical condition (or patient population in the context of primary care). Porter's "Hierarchy of Outcomes" begins with tier 1 being the health status that is achieved or, for patients with some degenerative conditions, retained. Tier 2 outcomes are related to the recovery process, whereas tier 3 is the sustainability of health. For all, the outcomes that matter the most are those relevant to the patients themselves. Patient safety is addressed as a tier 2 level in Porter's hierarchy in which he refers to "disutility of care" that includes diagnostic errors, ineffective care, treatment-related discomfort, complications, or adverse effects.[11]

Porter further describes that what generally matters to patients are outcomes that encompass the whole cycle of care—including health status achieved (eg, survival, functional status, and quality of life); the time, complications, and suffering involved in getting care; and the sustainability of benefits achieved (eg, time until recurrence).[12] These concepts include the importance of the care continuum and how "Patient Safety" is an essential outcome metric.

Ensuring patient safety needs to be a priority component of health care delivery in the United States, and the means to facilitate patient safety need to be diligently pursued. We believe that this presents a time of opportunity for our specialty to take the lead in ensuring perioperative patient safety by implementing and operationalizing the tenets of the Perioperative Surgical Home, as well as Enhanced Recovery into our everyday practice. The PSH model allows anesthesiologists to take leadership roles in defining patient-centered outcomes, ensure proper collecting and collating of data and metrics, advocate and promulgate evidence-based medical practice, and expand our role into acute perioperative evaluation and management phases of care. Anesthesiologists can also help define postdischarge follow-up and monitoring of patient progress and quality of outcomes. Responding to the challenges outlined by Malarky, Berwick, Pronovost, and Porter requires a new way of portraying our value to our colleagues in other specialties, to hospital administrators, and most importantly, to our patients. We believe that the PSH model, emphasizing multidisciplinary, collaborative care across the continuum of a patient's surgical experience, is uniquely qualified to advocate for patient safety.

DISCLOSURES

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