Enhanced Recovery after Surgery Versus Perioperative Surgical Home: Is It All in the Name?

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In this issue of Anesthesia & Analgesia, investigators from the Department of Anesthesiology at Duke University present 2 articles focusing on the topic of enhanced recovery after surgery (ERAS). The first article by Miller et al.1 shows that implementation of an ERAS protocol in patients undergoing colorectal surgery leads to a decreased length of stay (LOS) in the hospital. The second article by Waldron et al.2 demonstrates that intraoperative goal-directed fluid management strategies based on the concept of perioperative goal-directed therapy can be facilitated by using a noninvasive and operator-independent cardiac output monitoring system (NICOM, Cheetah Medical, Vancouver, WA). Because intraoperative goal-directed fluid management is considered as one of the key components of ERAS,3,4 this finding is significant since it may facilitate implementation of this approach in routine clinical practice.5,6 These investigators should be congratulated on helping our community learn what is the value associated with the adoption of ERAS to academic settings in the United States.

Kehlet,7 a renowned colorectal surgeon from Copenhagen University Hospital in Denmark, was the first to describe the concept of ERAS in the 1990s. The ERAS protocol consists of about 20 specific clinical practices such as reduced preoperative fasting, preoperative carbohydrate loading, avoidance of premedication, and others. When originally introduced, the ERAS protocol was used specifically for patients undergoing colorectal surgery but subsequently the use of this protocol has expanded to other surgical subspecialties.8,9 To date, ERAS protocols have been embraced in several European and Canadian institutions and have already been tested in multiple large-scale health care systems such as the National Health Services in the United Kingdom for colorectal surgery.5 ERAS has been shown to decrease the incidence of postoperative complications and decrease the LOS in the hospital without the use of new expensive equipment.10 The studies by Miller et al.1 and Waldron et al.2 presented in this issue of Anesthesia & Analgesia suggest that similar benefits of ERAS can be reproduced in the United States.

Interestingly, with the recent changes occurring in the health care system in the United States, the American Society of Anesthesiologists has endorsed the concept of the Perioperative Surgical Home (PSH) and has recommended including it as part of affordable care organizations and hospitals.11 It is widely recognized that our current perioperative system in the United States is costly, fragmented, and often driven by focus on hospital reimbursement as well as culture and tradition rather than on quality and service.12,13 The health care system in the United States is moving from a fee-for-service model (“pay for volume”) to a bundled payment model (“pay for value”) for common elective procedures, and this may further incentivize organizations to improve quality and service while lowering the costs. Because it has been shown that most perioperative complications are related to a lack of coordination of care and a wide variability in the way care is delivered, a model such as the PSH is much needed.14 The PSH is a practice model that emphasizes superior coordination of care from the minute a decision to operate is made until 30 days after discharge. Within that time period, this practice model calls for the implementation of a series of evidence-based preoperative, intraoperative, and postoperative protocols that will be applied with minimal variability across a single institution. These clinical protocols will vary based on surgical services and will be tailored to the local environment. It is hoped that implementation of the PSH will result in improved outcomes such as reduction in LOS and cost, better quality as assessed by the Surgical Care Improvement Project and National Surgical Quality Improvement Program measures, and improved satisfaction scores. There are minimal data, however, to support this assertion today.15

The current issue of Anesthesia & Analgesia includes a series of articles on both ERAS and the PSH, and one may wonder what is the difference between these 2 practice models? Although both these models have similar goals to improve clinical care and service and reduce cost, they vary in their approach. ERAS, as described previously, is a well-defined clinical protocol that relies on very specific items that are to be used on each implementation. The PSH is a much larger conceptual framework that includes coordination of care from the minute the decision to operate was made until 30 days after discharge. This improvement in coordination of care is likely to require the use of methods such as LEAN Six Sigma methodology and other management engineering methods and
active participation of all stakeholders that are part of the perioperative environment. PSH also calls for the use of many specific protocols for optimization of patients before surgery (e.g., delirium prevention and hemoglobin optimization), intraoperative management (e.g., anesthesia and nursing), and immediate postoperative management (e.g., nausea and vomiting). It also includes protocols for management of patients on the surgical wards (e.g., ambulation) and on discharge home (e.g., rehabilitation). Although ERAS protocols will mostly look the same whether they are implemented in the United Kingdom or in the United States, PSH protocols will vary significantly across institutions, as they will depend on the surgical services and on the local perioperative environment. Indeed, it is very likely that many of the PSH models will include a large number of the clinical items that are part of ERAS as they are relevant to the specific surgical episode and specific hospital.

We submit that the future of anesthesiology and perioperative medicine must rely not only on the development of new pharmacological and diagnostic modalities and treatments but also on better and more consistent implementation of evidence-based best practices. Although both ERAS and PSH have the same goals of better outcomes, better service, and lower cost, the route that these 2 methodologies are taking to achieve these goals may be different but complementary.

RECUSE NOTE
Dr. Maxime Cannesson is the Section Editor for Technology, Computing, and Simulation for the Journal. This manuscript was handled by Dr. Steven L. Shafer, Editor-in-Chief, and Dr. Cannesson was not involved in any way with the editorial process or decision.

DISCLOSURES
Name: Maxime Cannesson, MD, PhD.
Contribution: This author helped write the manuscript.
Attestation: Maxime Cannesson approved the final manuscript.
Conflicts of Interest: Maxime Cannesson consulted for Edwards Lifesciences, received research funding from Edwards Lifesciences, consulted for Masimo Corp., and received research funding from Masimo Corp.
Name: Zeev Kain, MD, MBA.
Contribution: This author helped write the manuscript.
Attestation: Zeev Kain approved the final manuscript.
Conflicts of Interest: The author has no conflicts of interest to declare.

REFERENCES