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Commentary: The art of medicine versus paint by numbers

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Medicine is unique from the rest of the scientific world, as there is an element of “art” to how it is practiced. We know how various organ systems are supposed to work, but when things go awry, the interpretation and treatment can be variable. This is where many find the challenge and joy of practicing medicine. However, it is this variability that has been the focus in quality improvement initiatives. Practice pattern variation has become synonymous with nonidealized outcomes. It is true, when organ systems or recovery pathways follow relatively consistent sequences, employing methods to minimize variation can improve outcomes and/or efficiencies. One could argue that creating guidelines and protocols takes away the “art” of caring for patients. The counter argument is that regimenting much of the care with known predictable pathways allows the physician more time and mental space to focus on the complex and challenging clinical scenarios in need of “artistic” consideration.

The institution, more so than the outcomes, of an Enhanced Recovery After Surgery program at Boston

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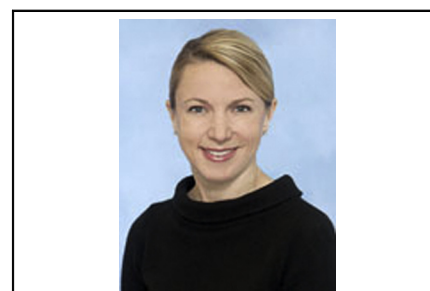
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CENTRAL MESSAGE

Guidelines are used in the inpatient setting to optimize efficiency and quality of care. Some say they restrict the “art” of medicine. Implementing these “paint-by-number” guidelines can be just as clinically challenging.

Children’s Hospital is the focus of Roy and colleague’s analysis.¹ The findings are most notable for the Herculean effort to derive and implement a protocol-driven program to reduce length of stay and adverse outcomes while also improving patient and family satisfaction. The significant, albeit not clinically relevant, reduction in mechanical ventilation time and intensive care length of stay are the “outcomes” but should not be the focus. The real importance of this study is the demonstration of an incredibly robust multidisciplinary effort to outline a comprehensive perioperative plan to improve early extubation and feeding while minimizing opioids and nausea. I am impressed with the power of getting all disciplines and level of care providers in the same room to focus on one problem. It is striking how much can be learned as well as the enhanced commitment

of the stakeholders in actually implementing what they create.

This early roll-out of an Enhanced Recovery After Surgery program for congenital heart surgery is really a proof of concept with a glimpse at the challenges of compliance. The patient population in the study was relatively low complexity and excluded neonates, yet only 54% were extubated within 8 hours. Even more interesting, the implementation of a multimodal pain regimen only occurred in 57% of patients in the operating room, where in theory it is a very limited anesthesia group that should have had “buy in” to the recommended regimen. Yet, there was 100% compliance in the postoperative setting with a far greater number of providers.

The key going forward will be the monthly multidisciplinary reviews to keep the process alive and encourage stakeholders to participate while also identifying barriers to compliance. These reviews along with the implementation of automated electronic medical record alerts for participation and compliance will be essential to truly impacting clinically relevant outcomes.

As it turns out, it can be just as difficult to paint by numbers.

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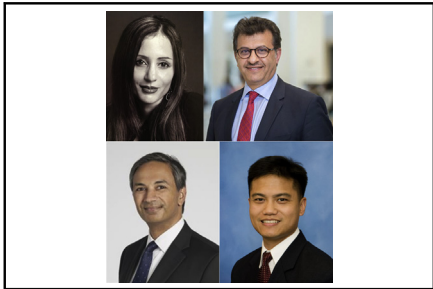
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Check for updates

**Commentary: False start—
Offense: Premature data may cost
more than five yards**

Tara Karamlou, MD, MSc,^a Hani K. Najm, MD, MSc,^a Samir Latifi, MBBS,^b and Ming Sing-Si, MD, MSc^c



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In this issue of the *Journal*, Roy and colleagues¹ describe their institutional experience with an Enhanced Recovery after Cardiac Surgery Program (ERAS) over an abbreviated 5-month period. The authors studied a group of 155 non-neonatal pediatric patients undergoing the less-complex spectrum of congenital cardiac surgical procedures and compared outcomes with a propensity-matched group before institution of this ERAS pathway.

CENTRAL MESSAGE

Although ERAS Pathways in pediatric cardiac surgery may have benefit, the current paper may not provide a complete picture, given the formative stage of the program.

We would like to congratulate the authors on their implementation of an important concept that has potential to improve short-term convalescence for this patient population. However, as the data presented currently stand, the utility of the program to achieve clinically relevant improvements is questionable. In fact, the minimal reduction in absolute ventilation hours or intensive care unit (ICU) length of stay without concomitant decreases in complications, reinterventions, or hospital length of stay, coupled with poor adherence to many components, limit our

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