extubation in the operating room (A. Ashfaq, M. Bacon, D. Vu, V. Kartha, A. Stock, J. Quintessenza J, et al, unpublished data, 2021) using a very collaborative multidisciplinary protocol involving anesthesia, surgery, and the critical care teams. This approach incorporates such things as fast-acting anesthetics, high-dose caudal analgesia and local blocks, as well as conceptual support from the surgeon. Very importantly, it requires expertise and comfort from the critical care team in managing the spontaneously breathing postoperative cardiac patient. Where this will all evolve as further data are obtained remains to be seen. Most certainly, if it is better for the patient, improves outcomes, and reduces costs, it will be here to stay. It's all about

doing what the patient needs rather than what we are used to or comfortable with.

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Commentary: The fast train to nowhere is still worth the ride!

Aaron Eckhauser, MD, MS

In this issue of the *Journal*, Murin and colleagues present a compelling case to support aggressively pursuing a fast-track extubation strategy in pediatric patients undergoing congenital heart surgery.¹ They report 182 patients over a 4-year period who met their criteria and were progressed down a fast-track extubation pathway (≤ 8 hours postoperatively). Happily, they found that compared with propensity score-matched non-fast-track patients, these patients had shorter intensive care unit and hospital length of stay, decreased postoperative blood transfusions, higher postoperative platelet counts, and a decreased need for postoperative inotropic support. This was accomplished in a personnel-constrained environment while maintaining the same clinical volume with equal or better outcomes. Despite their outstanding results, the authors received significantly less

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CENTRAL MESSAGE

Fast-track extubation after pediatric cardiac surgery is a safe, resource-efficient strategy that results in shorter intensive care unit and hospital length of stay and decreases in both transfusions and inotrope use.

reimbursement for the fast-track patients compared with similar patients who remained intubated longer, highlighting an unsettling paradox of a diagnosis-related group (DRG) reimbursement system: payment for nonperformance.

The most significant contribution of this work is to further reinforce the concept that when applied correctly, a fast-track extubation protocol following pediatric heart surgery is not only doable, but is incredibly safe and effective. Historically, our own program has extubated some of the less complex cases involving infants in the operating room, but our

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nonprotocolized strategy was implemented arbitrarily. Our participation in the Pediatric Heart Network collaborative learning project, in which patients with coarctation and tetralogy of Fallot underwent early extubation following surgery, taught us several important lessons. First, we realized that with widespread cultural acceptance of such a practice shift, dramatic results can be achieved. Second, we learned that it is easy to equate early extubation with stability, and not infrequently we would prematurely withdraw other support along with the endotracheal tube. Just because patients do not have an endotracheal tube does not mean they are not critically ill. However, the fact that so many infants weighing <7 kg could successfully undergo early extubation with such fantastic results is truly an inspirational motivation to move intentionally toward such a goal.

The authors also share an unexpected consequence of their work—that the German DRG-based reimbursement system could create a conflict in which higher performance (early extubation) is disregarded as long as standard therapy is more highly reimbursed. Unexpectedly, the authors found that when extubation times were dramatically reduced, they

received 27% less reimbursement for caring for patients of the same acuity. Although the main point of the paper was not advocacy or policy, their findings set the stage for a potential conflict. Resource-constrained units might not have the appetite to take on implementation of new practice patterns, especially if there are negative financial implications; and even worse, providers could choose to simply keep the standard of care to maintain reimbursement, even if it is not in the patient's best interest.

Regardless of these theoretical concerns, the authors deserve tremendous credit for their efforts to improve the quality and efficiency of care they deliver to their patients. This should serve as a reminder to us all of the untapped potential in each of our units and the opportunities that we all have to improve.

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Commentary: A coalition of the willing: Untangling efficiency-penalized reimbursement

Tara Karamlou, MD, MSc

I read with interest the article by Murin and colleagues¹ in this issue of the *Journal*, which seeks to investigate how a

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CENTRAL MESSAGE

Care processes that increase efficiency may paradoxically lead to declining reimbursement and dangerous personnel reductions.

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fast-track (FT) extubation strategy impacts the in-hospital clinical outcomes of patients <7 kg undergoing cardiac surgery, as well as the programmatic “impact” of this strategy