

Ambulatory Education: Time to Move From Process to Outcome

Eric J. Warm, MD
Bradley R. Mathis, MD

Ten years ago, the Accreditation Council for Graduate Medical Education (ACGME) used the power of accreditation requirements to improve how residency programs train internal medicine residents in ambulatory settings.¹ In a scoping review in this issue of the *Journal of Graduate Medical Education*, Coyle and colleagues found that despite a number of educational innovations since 2009, virtually no studies have demonstrated improved patient-level outcomes.²

In some ways these findings are not surprising. In quality improvement (QI) terms, the ACGME's original directives of minimizing inpatient-outpatient conflicts, conducting 130 ambulatory sessions over 30 months, evaluating practice-based measures, improving coordination and access for clinic patients, and providing longitudinal mentoring were all process measures and the literature simply reflects this. We did the things we were asked to do.

Coyle et al suggest the next steps in this work should be collaboration between programs to explore a wider application of innovations, improved evaluative tools, and creation of ambulatory best practices.² Laudable as these goals might be, they are again process measures that may or may not actually lead to better outcomes.

If the ACGME were rewriting accreditation standards now, perhaps they could borrow from QI and begin by truly emphasizing the ultimate goal of the work: internal medicine training programs must measure and improve patient care outcomes in ambulatory settings.³ The next steps in improvement would be to ask: What is the problem we are trying to solve? Why does the problem exist? We should seek to understand the systems in which we deliver care—only then can we develop theory and choose improvement solutions to test and eventually implement.⁴ Only then, depending on context, can we consider spread of innovation.

What is the problem we are trying to solve? Coyle et al show that despite 10 years of work, residency programs have not improved patient-level outcomes.²

Why does the problem exist? As often is the case in QI, the answer is multifactorial. First, despite the best of intentions, it is likely that the delineation of specific requirements by the ACGME obscured the vision educators had of the ultimate goal (care improvement). Without an understanding of one's current system, and without a fully developed theory of how process changes would positively impact patient outcomes,⁴ it would be easy, and perhaps common, to meet all the requirements and not improve care. Second, most educators lack a sophisticated understanding of improvement science and don't have the training and expertise to do this work. Without this understanding, their best intentions and hard work are disconnected from driving the improved outcomes. Third, even if they have this expertise, the incentives educators face in the clinical environment are not yet geared toward improvement, and we may actually limit their ability to achieve outcome improvement by incentivizing short-term goals over appreciation of the system (a network of interdependent components that work together to accomplish the aim of the system).⁴ Fourth, medical education research is woefully underfunded. Coyle and colleagues point out that large trials such as the iCOMPARE and the FIRST trials were funded because they were framed as patient safety issues, and they suggest using a similar approach to improve ambulatory training.^{2,5,6} On the surface this sounds appealing, but we feel this is not pragmatic or likely to happen. Yes, poor ambulatory care is a patient safety issue, but we do not think large trials are the first solution we should pursue.

Instead, medical educators should begin to connect education, care delivery, systems, and outcomes into their local programs. A number of studies have suggested that the quality of care trainees learn in residency is the quality of care they will deliver in practice.^{7–11} Getting better results will require development of expertise in improvement and implementation science, linking theory to process, and ultimately outcomes. Training practices, like all practices, have distinct populations and resources. An intervention in one context is not likely to work or

even make sense in another without careful consideration, modification, and testing. So instead of relying on the creation of QI projects and trying to spread them to various contexts, educators should first seek to spread capacity for improvement and system appreciation and *then* consider sharing specific innovations. Emerging concepts such as coproduction of care,¹² novel continuity models,¹³ finding joy and sustainability in practice,¹⁴ and different incentives for measurement and reward¹⁵ should all be tested out against the ultimate goal.

We don't want to impugn the efforts of the ACGME. The thinkers there have made great strides in moving us forward. The tension between accreditation requirements and innovation is a polarity.¹⁶ The goal in managing this tension should not be victory of one side over the other, but instead, we should maximize the best of both poles while minimizing the worst.

Medical education should and always will have requirements—and we need them—but the next rendition should move us away from process measures into the world of outcomes. Imagine if the requirements were simply this: *internal medicine training programs must measure and improve patient care outcomes in ambulatory settings*. And then, imagine if we had a group of innovators who created a path to this goal and were given the freedom to fail, but not the freedom to quit.¹⁷

In improvement efforts, we don't always know what works: we discover it. Coyle and colleagues have described the problem. We have suggested solutions. We don't know if they will work. These theories and others should be tested and retested: Do they actually improve care? If not, new ideas should be brought forth, each with the ultimate goal in mind. Let's connect education and care outcomes, and let's share what we have learned so that others may do the same.

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- Eric J. Warm, MD**, is Professor of Medicine and Internal Medicine Program Director, Department of Internal Medicine, University of Cincinnati Medical Center; and **Bradley R. Mathis, MD**, is Professor of Medicine, Department of Internal Medicine, University of Cincinnati Medical Center, and Associate Chief Medical Officer, UC Health.
- Corresponding author: Eric J. Warm, MD, University of Cincinnati Medical Center, ML 0557, 231 Albert Sabin Way, Cincinnati, OH 45267-0557, warme@ucmail.uc.edu, Twitter @CincyIM