

How to Implement High-Value Health Care Training in Graduate Medical Education

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The attitudes and practices that physicians develop during graduate medical education (GME) training often shape their behaviors for many years to come.¹⁻⁴ As some of these physicians then enter clinician-educator roles, these practices are emulated and subsequently passed down to future trainees over the course of a career, reaching far beyond their initial training site. Thus, if we hope to make meaningful progress on ingraining principles of high-value care, including the avoidance of unnecessary services that do not make people healthier (and thus cause net harm), successfully integrating these concepts and behaviors into GME training is essential.

Value-based health care aims to improve outcomes that matter to patients while decreasing total costs of care.⁵ Overuse causes both financial and physical harms, making it a patient safety issue.^{6,7} Improving value for patients is a part of everyday clinical decision-making and is fundamental to how we deliver care. It should be built on a foundation of professionalism, capturing the ethos of doing what is most beneficial for patients and our pledge as physicians to “first, do no harm.”⁸ Successful integration of value-based health care training into GME will require finding ways to seamlessly incorporate these concepts into all aspects of education and care delivery, rather than approaching this area as another topic that needs to be taught or an additional course to be added to the curriculum.⁹ This model of value-based health care affects how we make clinical decisions, communicate about overuse and costs with patients and colleagues, and evaluate and learn from our own practices. In this way, value-based health care reaches across all 6 ACGME core competencies: patient care, medical knowledge, professionalism, interpersonal and communication skills, practice-based learning and improvement, and systems-based practice. For successful integration into GME, value-based health care principles need to be baked into the cake, not just the icing that is placed on top.

In this issue of *Journal of Graduate Medical Education*, Zanotti and colleagues describe their

introduction of value-based education in a gynecologic oncology fellowship program.¹⁰ Rather than creating a new course, program leadership of this fellowship modified regularly scheduled educational sessions to routinely incorporate considerations of costs and value-based care. These included reviewing the Choosing Wisely recommendations for their specialty. Choosing Wisely is an initiative led by the American Board of Internal Medicine Foundation aimed at promoting conversations about common areas of overuse within each medical specialty.¹¹ Importantly, these educational components were tied to critical analysis of current practices for their own patients in their own clinics, with the identification of specific areas for improvement. The group recognized within their clinical practices a high-value component—smoking cessation counseling—that should be increased, and 5 low-value practices that should be decreased, all with the goals of improving patient outcomes and avoiding ineffective high-cost procedures. In 6 months of follow-up, 3 of the low-value practices were significantly reduced. Referrals for smoking cessation increased from zero prior to intervention to 36 following education and a subsequent fellow-led quality initiative.

The value-based education program began with Dr Zanotti, the fellowship program director, leading a didactic session that explained the key concepts of value, including considerations related to costs and the measurement and improvement of quality. Although medical schools and residency programs are rapidly including these concepts in training, most physicians have not yet been introduced to these principles. It seems critical to lay this foundational knowledge base prior to embarking on efforts to improve value. Many GME programs claim that they do not have local faculty expertise to teach these concepts, so we created freely available interactive learning modules that provide introductory value-based health care teaching for health professionals at any level of training. This “Discovering Value-Based Health Care” tool has been widely adopted across the United States and can be flexibly applied across different educational models.¹²

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There were a number of key elements in the approach by Zanotti et al that likely contributed to the program's success and should be considered in designing future efforts to incorporate value-based health care in GME.

1. Principles of high-value care were incorporated in a longitudinal, integrated, case-based manner.

The program leaders used an existing conference structure and “routinely and robustly” integrated concepts of cost and value-based care into medical teaching points at all education conferences, often using a case-based approach.¹⁰ This method reinforces that value-based health care is a part of everyday clinical decision-making. GME programs often mention lack of available time as a barrier to teaching high-value care; by incorporating this concept into the existing conference structure and each clinical topic, these program leaders solve that problem. This is similar to the approach taken by medical student participants in the Choosing Wisely STARS (Students and Trainees Advocating for Resource Stewardship) program, who asked clinical lecturers to include relevant Choosing Wisely recommendations and/or other considerations related to high-value care into their routine lectures on clinical topics during medical school.^{13,14}

2. The education and initiatives involved the care team, including attending physicians and advanced practice nurses, along with the clinical fellows. Shared learning and interprofessional team-based discussions established a wider adoption of these practices across clinical teams. By using a forum that included attendings, trainees, and other clinical providers, these educators ensured that all team members shared a common understanding of the concepts, issues, and opportunities. Obviously, this was facilitated by the relatively small size of this specialized fellowship program; however, the principle can be applied in other GME settings. For example, many programs engage in learning sessions such as grand rounds, morbidity and mortality conferences, and surgical planning conferences. These commonly occurring educational opportunities have been successfully used to expound these concepts to wider audiences.⁹

3. Educational topics were directly tied to specific target behaviors and improvement efforts. The fellows and faculty were able to apply value-based skills and knowledge by identifying the high- and low-value practices that were most applicable to their daily routine. In the structure of their organized conferences was embedded a

methodological approach to guide the faculty and fellows to integrate value-based concepts into their clinical decision-making and ultimately develop quality improvement initiatives using a step-by-step approach. Self-selecting specific improvement targets helps optimize integration and reinforcement of knowledge and changes in clinical decision-making.

4. The team critically reviewed and analyzed their own data and practices. Education is generally not enough to change behavior. This program connected the learning objectives with quality review of their own practices and then set targets for improvement. Linking venues to develop clinical knowledge with value is one accomplishment, but to engage faculty and fellows to create “action learning” opportunities to reinforce that integration is even more commendable. This type of “connected” leadership provides a compelling reason for participation and ensures impact.¹⁵

5. Program leadership role-modeled the change effort. The fellowship director taught the initial session, enlisted other core faculty members to teach subsequent modules, and included attendings in learning sessions. Faculty development and the need for consistent role-modeling of conscious, value-based decision-making within the clinical learning environment have been identified as significant barriers to encouraging high-value care practices in GME.¹⁶ It is essential, as the authors recommended, to expand learning sessions to providers across all educational settings to cement these concepts. Role models can influence both desired *and* undesired behaviors, and are necessary to leading and sustaining change. It is possible to incorporate teaching techniques for high-value care into existing faculty development programs. With the investment of faculty and leadership, Zanotti et al were able to align program goals, group goals, and individual goals to lead the change effort.

The program description by Zanotti et al is an “Educational Innovation” article, thus includes less rigorous standards for scope and outcomes. This effort occurred within a small fellowship program, involved only 3 clinical fellows at a single institution, and focused on a limited number of specific targets. The evaluation period was also brief, only extending for 6 months following the initial intervention, and also lacked direct observation of behavior. Therefore, the generalizability and sustainability of this model are still unclear. However, this description serves as an inspirational model with early lessons that can

encourage others to further advance the integration of high-value care into existing GME training activities. While the outcomes measured are limited, they did reveal changes in clinician behaviors, which is relatively high on the educational outcome pyramid.¹⁷ We hope that this research team will further analyze these outcomes over time and perhaps even evaluate whether these behaviors persist in their alumni following graduation from their program. These additional assessment efforts would provide stronger evidence for the importance of these types of learning experiences. This study also provides justification to develop milestones specific to value-based care that reach beyond cost containment and across the ACGME 6 core competencies.

GME training is a lynchpin to ingraining lifelong, high-value care practices. Teaching high-value care can be accomplished in pre-existing multidisciplinary and interprofessional learning activities in diverse settings including the classroom, clinic, and at the bedside. Concepts can be reinforced using evaluation tools for direct observation, faculty development programs to scale learning, and quality improvement projects. In addition, review of patient outcomes to confirm the results of high-value care will support its ongoing use. These components are likely the recipe for successful GME integration of high-value care.

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