Providing High-Value, Cost-Conscious Care: A Critical Seventh General Competency for Physicians

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There is general agreement that the U.S. economy cannot sustain the staggering economic burden imposed by the current and projected costs of health care. Whereas governmental approaches are focused primarily on decreasing spending for medical care, it is the responsibility of the medical profession to become cost-conscious and decrease unnecessary care that does not benefit patients but represents a substantial percentage of health care costs. At present, the 6 general competencies of the Accreditation Council for Graduate Medical Education (ACGME) and the American Board of Medical Specialties (ABMS) that drive residency training place relatively little emphasis on residents' understanding of the need for stewardship of resources or for practicing in a cost-conscious fashion. Given the importance in today's health care system, the author proposes that cost-consciousness and stewardship of resources be elevated by the ACGME and the ABMS to the level of a new, seventh general competency. This will hopefully provide the necessary impetus to change the culture of the training environment and the practice patterns of both residents and their supervising faculty.

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Approximately 10 years ago, the Accreditation Council for Graduate Medical Education (ACGME) and the American Board of Medical Specialties (ABMS) defined a set of 6 general competencies that were believed to encompass the knowledge, skills, and attitudes critical for physicians to acquire during training (1). Two of these competencies reflected the most traditional goals of residency training and the standard metrics for evaluating trainees: acquisition of medical knowledge and skills in patient care. Another 2 competencies—professionalism and interpersonal communication—represented skills and attitudes that have also traditionally been considered fundamental attributes of the high-quality physician, but are more difficult to evaluate objectively and are often best conveyed through role modeling by more senior physicians. The final 2 competencies—systems-based practice and practice-based learning and improvement—can justifiably be considered the newest of the competencies, ones that were largely driven by recognition of significant gaps in quality of care and an understanding that optimal care is a "team-based sport" requiring ongoing assessment and quality improvement (2).

More than 10 years ago, 2 landmark reports from the Institute of Medicine (3, 4) provided a call to action for the medical community to address gaps in patient safety and health care quality. The impetus from these reports drove widespread efforts to measure and improve quality during the decade from 2000 to 2010, accompanied by development of performance measures and incentives to reward high-quality care or to penalize suboptimal care. Although the need to improve quality of care and patient safety persists in the current decade, there is a new "elephant in the room" that is even more critical to acknowledge: the unsustainable cost of care. In the current environment, the ever-burgeoning cost of health care is overshadowing all other issues as the major concern determining the future of the health care system (5). We must not only bend the cost curve but also decrease the current cost of care, particularly with the potential for 32 million more insured lives accompanying the Patient Protection and Affordable Care Act. Attempts to solve the problem by legislating reductions in Medicare or Medicaid spending are not addressing the real problem because they are focused on reducing reimbursement for care, not decreasing the actual cost of care.

There is general agreement that waste in the health care system represents a significant component of the high cost of health care. Estimates often suggest that approximately 30% of health care costs, or more than $700 billion per year, is wasted, is potentially avoidable, and would not negatively affect the quality of care if eliminated (5). Examples of such care include overuse and misuse of diagnostic testing, avoidable hospitalization and rehospitalization, and overuse of emergency department services. The problem with overuse of diagnostic testing is worsening considerably over time, as the per capita volume of imaging and other diagnostic tests has increased approximately 85% in Medicare beneficiaries over the past decade (6).

There are many factors underlying each of these examples, but a particularly important one is that the training environment has not yet widely embraced the need for medical students, residents, and subspecialty trainees to understand the profession's responsibility for stewardship of resources (7). In the typical training environment, residents are encouraged to do thorough diagnostic work-ups, and criticism from faculty is more often related to failure to order a test than to overuse of testing. The question posed on teaching rounds is typically, "Why didn't you order test X?" rather than, "Why did you order test X, and what are you going to do with the information?" Unfortunately, it is unusual for residents to have information about the costs

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Table. **The 6 General Competencies of the Accreditation Council for Graduate Medical Education/American Board of Medical Specialties, and the Proposed Seventh Competency***

Competency	Description of Residents' Requirements
Medical knowledge	Demonstrate knowledge of established and evolving biomedical, clinical, epidemiologic, and social–behavioral sciences, as well as the application of this knowledge to patient care.
Patient care	Be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.
Professionalism	Demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles.
Interpersonal and communication skills	Demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals.
Practice-based learning and improvement	Demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and lifelong learning.
Systems-based practice	Demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.
Proposed new competency: cost-conscious care and stewardship of resources	Understand the need for stewardship of resources and practice cost-conscious care, including avoiding the overuse and misuse of diagnostic tests and therapies that do not benefit patient care but add to health care costs.

* Adapted from references 1 and 2.

of the care they are providing, and they are rarely taught about the cost implications of their care.

Past efforts to teach residents about cost-effective care unfortunately have not been particularly effective (7, 8). In 1 study, for example, neither weekly lectures on cost-containment nor audit with feedback was successful in reducing the cost of care provided by residents in a major academic medical center (9). Failure to have sustained effects has similarly been seen in other studies using educational interventions (10).

Yet, it remains critical to engage physicians during training in efforts to reduce costs. The practice habits that are developed during medical school, residency, and fellowship training often persist throughout a career. After one finishes training, the opportunities to be influenced by respected role models decrease considerably, thus making the habits of practicing clinicians particularly difficult to break. On the basis of experience with interventions used in the training environment, however, it is clear that new methods must be tried.

At present, as one of the components of the systems-based practice competency, residents are expected "to incorporate considerations of cost awareness and risk–benefit analysis in patient and/or population-based care as appropriate" (1). Given the importance of cost-containment and stewardship of resources in today's health care environment, I would argue that embedding this statement as one of many components of systems-based practice, without clear recognition of its importance and a focused mandate for its implementation, is insufficient. To assure that training programs, faculty, and residents pay sufficient attention to the need for cost control, I propose that the cost-awareness component of systems-based practice be removed and elevated to the level of a new, seventh general competency from ACGME and ABMS, perhaps designated "cost-conscious care and stewardship of resources" (**Table**). This would guarantee not only resident education, but also appropriate evaluation of residents' behavior in the care of their patients. It would provide the impetus for faculty development in the same area, so that faculty can not only teach and evaluate residents but also change their own practice patterns and serve as appropriate role models for cost-containment.

Adoption of the ACGME/ABMS competencies—particularly the 2 least traditional and newest competencies, systems-based practice and practice-based learning and improvement—has clearly changed education, evaluation, and the culture of residency training programs. Now that cost control in health care has reached a crisis level, it is essential that we apply regulatory clout to change the culture of the training environment with regard to health care costs. Residents must recognize and understand the issues surrounding escalating costs and the need for cost-containment. They must be thoughtful in ordering diagnostic tests, avoiding the overuse and misuse of imaging studies and laboratory tests that have become rampant in health care. They must avoid duplication of studies and must be conscious of opportunities to prevent avoidable hospitalizations or readmissions. In short, they must become part of the solution to control health care costs, not only for today but for the rest of their professional lives.

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