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ETHICS CASE

Cost-Consciousness in Teaching Hospitals

Commentary by Maggie K. Benson, MD, MS

Paul, who graduated with a joint MD/PhD and an interest in quality improvement and high-value care, is a second-year internal medicine resident in an academic hospital in a large city. He started his first month on the general medicine floor two weeks ago.

He had been looking forward to working with Dr. Rivers, a hematologist and one of the most senior attending physicians in the department, who had performed groundbreaking research in the 1970s in cellular biology. But Paul has found that he disagrees with Dr. Rivers on a number of clinical decisions, particularly in the ordering of lab tests. Often for any laboratory abnormality, such as a slightly elevated calcium, Dr. Rivers wanted a full workup to be performed, including hormone levels and various other tests. Recently, for example, a patient on the service had a prolonged partial thromboplastin time (PTT), a measure of the blood's ability to clot. An enthusiastic believer in the dual patient care and education roles of the teaching hospital, Dr. Rivers saw prolonged PTT as an opportunity to teach the utility of various lab tests, and he recommended ordering a full panel, including mixing studies, fibrinogen, factor levels, and several other tests.

Paul felt that, since many of these lab tests would not change the clinical care of the patient, they were unnecessary. He found it difficult, however, to bring up his views with Dr. Rivers, either on rounds or in the afternoon, because Dr. Rivers was a senior physician and so enthusiastic about explaining the lab results to the residents.

Dr. Rivers had noticed that Paul seemed to disagree with some of his decisions on rounds and was not as enthusiastic about the workup of certain patients. He did not know whether Paul disagreed with the clinical decisions or was simply disinterested.

Commentary

It is common knowledge that the United States spends more money on health care per capita than any other country in the world, yet achieves health outcomes that do not surpass its peer countries [1]. Acknowledging this discrepancy between health care spending and health outcomes, the Institute of Medicine in 2012 published a report, *Best Care at Lower Cost*, which estimated that 30 percent of health care costs in the US were wasteful, i.e., did not contribute to improved health outcomes [2]. As gatekeepers of health care spending, physicians play a critical role in health care use and have an ethical imperative to provide high-quality care that avoids the medical and financial harms of

unnecessary care for both individual patients and society. Proponents advocate that practicing high-value care be considered a universally necessary competency for physicians [3].

Accordingly, there have been many calls to establish high-value care as an educational priority [4-6]. The question posed to medical educators now is not "*should* we teach high-value care," but rather "*how* do we teach our trainees to practice high-value care?" This question has spurred various curricular efforts across specialties and training levels [7, 8]. While formal curricula in high-value care are a starting point, the daily experiences of residents on the wards and in clinics, such as those described in the case of Paul and Dr. Rivers, are in all likelihood more powerful in influencing resident behavior with regard to high-value care. As one study demonstrated, the spending environments in which residents train impact their spending patterns for years after entrance into independent practice [9]. To create a workforce of physicians prepared to practice high-value care, medical training programs must teach trainees to be thoughtful stewards of limited health care resources.

At the University of Pittsburgh, we conducted focus groups with residents in which we inquired about the barriers they face to practicing high-value care in their training [10]. One of the most common barriers to emerge was attending physicians and consultants. Mirroring Paul's experience, our residents reported observing variable attention to value among attending physicians and cited this as a powerful barrier to reducing unnecessary tests and procedures. In this case, Paul's interest in health policy enhances his motivation to practice high-value care on the wards. Despite his enthusiasm, Dr. Rivers has not reinforced the importance of high-value care, and his actions undermine the educational mission of high-value care.

Paul is in his first month as a second-year resident and eager to make a good impression. Creating conflict with the attending physician is most likely not on his agenda. Dr. Rivers's seniority may be intimidating to Paul and make him even less likely to engage in a dialogue about test-ordering practices and the value of various tests. Paul may even fear that showing restraint in ordering tests may lead Dr. Rivers to form a poor impression of his clinical judgment and prompt a negative evaluation at the end of the month. In defense of Dr. Rivers, he appears to have good intentions and enthusiasm. He is focused on the educational mission of demonstrating medical knowledge but less focused on how each test may impact the clinical care of the patient at hand.

The least effective path forward is for Paul and Dr. Rivers to move through the month in silent tension, risking a poor teaching evaluation for Dr. Rivers, a poor resident evaluation for Paul, and a lost opportunity to improve for both. It is also not in Paul's best interest to create an adversarial relationship with Dr. Rivers on rounds, in front of other learners.

The most productive next step in this scenario would be an in-person discussion between Paul and Dr. Rivers about high-value care and the rationale for the various tests that Dr. Rivers recommends. Although he is a senior physician, it's possible that high-value care is a novel concept to Dr. Rivers. For this conversation to occur, Paul would have to feel confident enough in his relationship with Dr. Rivers, his clinical acumen, and his communication skills to broach the subject. This conversation would be best held away from the rest of the team so that neither Paul nor Dr. Rivers feels self-conscious in front of other junior learners. There is also an opportunity for Dr. Rivers to initiate the dialogue with Paul during mid-rotation feedback.

The ideal outcome of a conversation would be for Dr. Rivers and Paul to agree to practice and teach high-value care as a team. Dr. Rivers would need to be receptive to practice change and it would help if he were familiar with the concept of high-value care. He could embrace the learning opportunity presented by an abnormal lab value by discussing a broad differential diagnosis with the team, but advocate most often restricting further testing to that which is relevant to the particular patient under their care. Paul would need to acknowledge that there may be rare times when extra testing is ordered strictly for educational value rather than advancement of patient care, so long as the intent is made transparent to learners and not showcased as the standard of care.

There are ways to overcome the barriers both Paul and Dr. Rivers confront to engaging in such dialogue. If Paul is uncomfortable approaching Dr. Rivers directly, he could voice his concerns through other available avenues. Having a private conversation first with the program director or a chief resident may enable him to apply more nuanced communication strategies in speaking with Dr. Rivers directly, or it may open other avenues in which the program leadership could discuss practice change with Dr. Rivers.

To pursue practice change, Paul's training program could prime the educational environment to foster high-value practice. Placing high-value care education on the agenda for faculty retreats or faculty development sessions would help to establish it as an educational priority. The wealth of recent literature on teaching value [3, 6, 7, 8] and general consensus on the importance of high-value care education should serve as a meaningful way to build faculty buy-in for practice change.

Programs could also design novel, or adapt existing, teaching tools to help faculty members teach high-value care on the wards or in clinic, which would help develop faculty knowledge and teaching skills. This approach would be less of a burden to faculty than designing a teaching activity on high-value care on their own would be, especially if they view it as outside of their content expertise. At the University of Pittsburgh, for example, a clinician educator designed a patient bill-reflection exercise that all faculty rotating on the wards are expected to use for one teaching session each month [11].

Ward attending physicians are provided with easy access to a patient bill and a discussion guide to help facilitate dialogue.

Finally, by incorporating the practice and teaching of high-value care into the resident evaluation of attending physicians, Paul's program could signal the importance of this concept, provide learners with safe and anonymous means of providing feedback on it, and enable program leadership to monitor the practice and teaching of high-value care on the wards.

With health care costs unsustainable and unnecessary health care placing patients at risk of medical and financial harm, physicians must fulfill their responsibility to provide care that is effective, safe, and efficient. Medical educators must guide future physicians in the nuanced, evidence-based clinical decision making that high-value care requires. While serving as ward attending physicians, faculty have a responsibility to learners and patients to serve as role models by teaching high-value care, and training programs have a responsibility to prepare faculty for success in high-value care education.

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