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Opinion paper

Saving without compromising: Teaching trainees to safely provide high value care

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ABSTRACT

Hospitals are increasingly shifting toward value-based reimbursement and focusing on cost consciousness and patient experience. These concepts are crucial to high-quality, affordable healthcare. However, physicians are not well-trained in factoring cost and patient experience into clinical decisions. The addition of these ideas may create the opportunity for patient harm by depriving patients of necessary care. We discuss ways for physicians to mitigate this risk by engaging in online high value care curricula, using a "5-Question High Value Care Time Out," getting mentorship from master clinicians and using clinical decision support tools.

1. Introduction

Healthcare is shifting away from fee-for-service reimbursement toward value-based payments that reward quality, efficiency and patient experience. To succeed in these new payment models, physicians must weave cost-consciousness and patient-centered care into their practice. Many training programs are now incorporating recently-added Accreditation Council for Graduate Medical Education core competencies related to value into their curricula.[1,2,3] However, educating physicians on the components and importance of high value care (HVC), including decreasing overall healthcare costs without compromising patient outcomes, and improving patient experience, is only the first of two crucial steps. Physicians, particularly those in training, must then be taught how and when to safely incorporate these elements into patient care.

Although these aspects of HVC may seem straight-forward, actualizing them is not. Implementation of, for example, an intervention to decrease the volume of unnecessary laboratory tests, requires comfort with uncertainty and dedication to practicing restraint. If implemented without caution, the current wave of high-value initiatives could result in patient harm from under-ordering, and subsequent erosion of the physician-patient relationship, similar to the Health Maintenance Organization backlash of the 1990's.[4]

In this Opinion Paper, we present case studies in which the HVC principles of cost-consciousness and patient experience had the potential for suboptimal care. We recommend curricula for understanding HVC, and introduce a "5-Question High Value Care Time Out" to assist physicians with providing the "right" amount of care at times of uncertainty. We also outline institutional strategies including structured mentorship from master clinicians and the use of clinical decision support tools that can be employed to ensure patient safety in the context of HVC.

2. Cost-consciousness

A 78-year-old woman presents to an emergency department complaining of back pain and subjective leg weakness. Physical exam reveals mild weakness in both legs. The resident attributes the weakness to limited effort due to pain and opts for symptom management and watchful waiting. When the attending physician sees the patient, he notices a walker next to the stretcher and asks "when did you first start to use this?" The patient replies, "two weeks ago." The preceptor elicits that the pain is worse when standing and is relieved by sitting. He points out that this constellation of symptoms is concerning for spinal stenosis, and the resident and preceptor decide together to order magnetic resonance imaging.

One of the cases commonly presented in high value curricula is the patient with acute onset, uncomplicated lumbar back pain, in which physicians should usually avoid imaging. The concern is that in such cases, trainees may "turn off" their thinking, committing early to a

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minimally intensive approach when presented with what appear to be low-acuity symptoms. However, high-value care necessitates the opposite, that the physician be even more vigilant than usual, justifying the decision to omit further workup with a thorough history and physical exam.

In this case, the presence of the walker triggered the concern of the preceptor, leading to more detailed questioning and eventually the recommendation for further testing. It was important not only that the preceptor and resident eventually opted for additional workup, but also that they picked the "right" imaging test rather than the least expensive. Spinal x-rays, although cheaper, would have been less likely to be diagnostic and would have delayed further workup and treatment. Picking the "right" test, rather than the least expensive, is an important but often underappreciated tenant of HVC.

National guidelines can be helpful, but may be difficult to put into practice in the absence of a dedicated curriculum. The American Academy of Family Physicians provides the somewhat vague recommendations that (1) "imaging is not indicated in patients with acute low back pain who do not have findings suggestive of serious pathology" and (2) "red flags are common in patients with acute low back pain and do not necessarily indicate serious pathology."[5]

Undoubtedly, the challenge lies in identifying cases in which costs can be controlled without compromising health outcomes. The American College of Physicians (ACP) high-value care curriculum employs Bayesian thinking to adjust probabilities of a disease based on aspects of the history and physical exam.[6] Such a curriculum, coupled with on-site clinical mentorship, can equip trainees with the skills necessary to safely practice high value care. Educators must focus not just on sample cases that fall on either end of the spectrum: benign presentations in which expensive diagnostic tests or treatments are unlikely to change outcomes and worrisome presentations in which those tests or treatments should be pursued despite the costs, but also on the most challenging cases that fall somewhere in between. As in this case, they should also demonstrate how they gather the findings to determine if worrisome features are present. The process can be reinforced by following trainees into the clinical setting – observing them as they care for seemingly "low-acuity" patients – and auditing cases in which HVC principles are applied. These education-audit-feedback cycles can reinforce the appropriate thought process for incorporating cost-conscious thinking.

Finally, trainees can employ a tool like the 5-Question High Value Care Time Out (Fig. 1). In this case, gathering additional data, identifying red flags and seeking the guidance of an experienced physician all led to appropriate testing and a positive outcome.

Self-reflection questions meant to assist physicians in providing the "right" amount of care and avoiding patient harm

- Should I obtain additional information, or confirm my assumptions with other data?
- Are there any "red flags" that raise my suspicion of a more serious condition, or higher potential for decompensation?
- Is there a best-practice guideline or decision-support tool that I can use to help make this decision?
- Should I run this case by a supervisor or colleague to see if there is anything I am missing, or to help me weigh the risks and benefits?
- Do the risks and benefits of my plan appropriately align with the patient's goals of care?

Fig. 1. The 5-Question High Value Care Time Out.

3. Patient experience

A hospital-wide initiative focuses on improving sleep for hospitalized patients by decreasing nighttime disruptions. Program leaders encourage physicians to consider foregoing vital signs at night for stable patients. There is wide inter-physician variation in adoption of this intervention, and some physicians worry that without nighttime vitals, they may miss signs of clinical deterioration. The program then introduces an electronic health record (EHR)-based clinical decision support tool for clinical stability to help guide physicians in implementing this change. When physicians are advised to consider foregoing nighttime vitals according to a specific set of criteria including stable vitals and no recent medication changes or procedures, they are more receptive, and the intervention gains traction.

Patient experience is a key outcome measure in value-based payment models. However, physicians must be aware that every decision made in the course of a patient's care, no matter how small, has both benefits and risks. When interventions aimed at improving patient satisfaction change practice, physicians may not be adept at weighing the improved patient experience against the possibility of harm. This discomfort may help explain recent backlash against emphasizing patient experience.[7,8] Without the appropriate adjuncts and support, patient experience interventions may paradoxically create the potential for erosion of the physician-patient relationship if patients perceive that the changes being made are intended to decrease hospital costs or improve Health Plan Consumer Assessment of Healthcare Providers and Systems scores rather than to improve patient experience and clinical outcomes.

In the case above, trainees voiced concern that they lacked a framework to know when patients would be safe to forego nighttime vital signs, and asked for guidance. No randomized studies have determined optimal vital sign frequency for patients on the medical wards, so the program leadership developed a clinical decision support tool to help guide clinicians in determining which patients were "clinically stable." The availability of a clinical decision support tool, which is part of the 5-Question High Value Care Time Out, was important because deciding which care to forego is often more difficult than deciding which care to order.[9]

Furthermore, it was crucial that this intervention included not only data on patient experience and sleep, but also balancing measures including rates of intensive care-unit transfers and rapid-response team activations. Disseminating data illustrating that this intervention was not causing harm was crucial for physician buy-in.

Training programs like the Institute for Healthcare Improvement's (IHI) Open School can emphasize the above points and guide clinicians in thoughtfully implementing such initiatives.[10] The trainings address principles of patient-centered care and key quality improvement tenants including choosing measures and developing and testing change.

4. Conclusion

Attempts at emphasizing cost-consciousness and patient experience are well-intentioned and critically important to improve affordability and quality of health care. However, the practice of HVC necessitates thoughtful instruction and implementation to avoid risking patient harm.

Practicing high value care requires a relatively new skillset that not all experienced physicians feel comfortable practicing or teaching. For this reason, both trainees and experienced physicians should start by building a basic understanding of concepts using curricula such as the Dell Medical School "Discovering Value-Based Health Care" online modules,[11] the ACP's high-value care curriculum[6] and the IHI's Open School.[10]

Next, trainees can employ a strategy of self-reflection by taking the "5-Question High Value Care Time Out." This structured approach is applicable to a wide range of clinical decisions but may be most-relevant to seemingly low-acuity situations in which physicians are considering omitting further testing. By asking these questions, physicians may be able to more systematically assess risk and determine the need to gather further information before proceeding. This type of time-out

could be used by groups in case conferences, or by individual residents, for example as a pocket card. Further development and testing is needed.

Finally, institutions can promote HVC while maintaining safety by implementing structured mentorship and clinical decision support. Fortunately, the tradition of graded autonomy supported by a culture of education allows trainees to learn through practice.[12] Experienced physician educators need to demonstrate and explain to trainees their nuanced use of HVC concepts and employ education-audit-feedback cycles. When possible, leaders in HVC should create and promote use of clinical decision support tools, such as EHR-based alerts and calculators, condition-specific order sets, and clinical guidelines pathways to promote safe program implementation. In addition, to better understand the clinical impact of HVC interventions, institutions should closely monitor and publish not only cost savings and patient experience, but also balance metrics and safety data.

In their 2012 perspective, Rosenbaum and Lamas commented that "the real goal is not 'cost consciousness' per se, but better use of evidence-based medicine and Bayesian principles."[13] Improving value is crucial to our healthcare system, and with the appropriate support, particular for trainees, we are confident that this can be achieved without sacrificing patient safety or the physician-patient relationship.

Conflicts of interest

The authors have no conflicts of interest to report, either financial or otherwise.

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