Virtual Mentor

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FROM THE EDITOR

Catching up with Evidence-Based Medicine

In academic institutions, on the wards, and in physicians' offices across the country, the daily debate about how to provide the best care for the patient continues today as it has for centuries. But these days there is one clinical challenge that subdues all but the boldest (or, perhaps brashest): "There is no evidence supporting (*insert proposed treatment here*)!" Indeed, we find ourselves now squarely in the era of evidence-based medicine (EBM), in which clinical decision making centers around "evidence" and professional societies churn out clinical practice guidelines on a regular basis to help physicians keep pace. In this month's *Virtual Mentor*, we explore the intersection of ethics and guidelines in medical practice and consider the merits of the evidence-based medicine movement that led to the prominence of such guidelines.

To those who have learned to practice medicine more recently, it's hard to imagine a clinical milieu in which supporting data were not the central justification for patient care. Somewhere along the line *evidence* stopped being just part of the rationale for clinical decision making; we capitalized the "e," and *Evidence* became nearly synonymous with rationale. In this month's history of medicine section, we hear a personal tale from David M. Eddy, MD, PhD, about the beginnings of the EBM movement.

The process of validating evidence for clinical use has become quite nuanced. Opeyemi Daramola, MD, and John S. Rhee, MD, MPH, explain in a policy forum piece how medical evidence is rated, giving valuable insight into the process by which medical research informs the development of guidelines. Indeed, this reverence for data has made it from the provider side to the bedside and all the way to the patient, as illustrated by the frequency with which patients request statistical support from physicians for their recommendations. How, then, does the physician recommend a course of action that is not yet supported by guidelines or does not yet have a wide array of clinical trial findings? Peter Angelos, MD, PhD, tackles this question in his clinical case commentary.

What remains even less well-defined is the moral authority that guidelines wield in the clinical arena. From an outcomes perspective, it is widely accepted that guidelines provide clinicians with a tool that, when adhered to, promises the physician that he or she will see a *net* benefit to his or her patient population as a *whole*. Most will maintain, however, that the classic tenets of medical ethics—patient autonomy, beneficence, and nonmaleficence—must continue to inform our clinical decision making on an individual patient-to-patient basis. Is a physician

justified in disregarding guidelines in the name of such principles? Karen E. Hoffman, MD, MHSc, MPH, and Paul L. Nguyen, MD, tackle this topic in the second clinical case commentary, along with the extent to which a physician can demand that a colleague comply with such guidelines. Indeed, most physicians will agree that a guideline may be disregarded in any individual case and that categorically following guidelines fails to consider each patient as an individual.

From this belief stems the widespread worry that legislation and reimbursement schemes will give physicians undue incentives to adhere blindly to guidelines. Jason John Luke, MD, explores the effect that the recently passed Patient Protection and Affordable Care Act will have on comparative effectiveness research and physician practices in a policy forum article.

Patients may well worry that EBM will usher in a new-age medical paternalism. Ostensibly, the progress made in the field of medical ethics in the past three decades has de-emphasized unilateral decision making by the clinician and embraced the model of shared decision making in the name of patient autonomy. In the age of guidelines, however, there is risk, if not a danger, that the physician and patient—or even the physician alone—may no longer decide what's best for each individual patient; instead, the medical system may dictate treatment through the imposition of clinical practice guidelines, reimbursement policies, or other methods of standardizing health care delivery. Could the patient's preferences simply disappear from the equation?

In their clinical case commentary, David R. Brush, MD, and John Cardasis, MD, write on the subject of handling patient requests contrary to practice recommended by clinical guidelines. This case, in which a former smoker demands a CT scan to allay her fears of lung cancer, gives rise to a clinical "pearl" that recounts the effect of smoking on the lungs and tells how many years of smoke-free living it takes to undo the damage.

Many remain concerned about the wholesale adoption of EBM. Are physicians to become mere automatons in the pursuit of numerical targets and dichotomous practices? In the journal discussion, Joshua Goldman and Tiffany L. Shih explain the epistemological limitations of EBM described in seminal journal articles. There is also reason to fear that the *art* of medicine has been lost in this era of guidelines, targets, and evidence. In our medicine and society piece, Richard Colgan, MD, shows us that both evidence-based medicine and individualized patient care have their roots in longstanding medical traditions and that art and science are indeed compatible.

It is clear that the widespread reliance upon evidence as rationale for medical decision making is unlikely to change. It is deeply entrenched in our current system, and the social benefits are great. Looking to the future, our medical education piece by Alan Schwartz, PhD, and Jordan Hupert, MD, gives insight into how these principles can be taught to future physicians. What remains to be seen is the way in

which physicians respond to the rigors of practicing evidence-based medicine, all the while keeping the patient's interest in mind.

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