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Physician Accountability

From the Editor

Educating for Professionalism

Law, Policy and Society

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From the Editor
The Rise of Physician Accountability

The premise underlying this issue of *Virtual Mentor* is that there has been a change in the role that doctors play in society. It has occurred in small steps, over roughly 30 years. Although the process may have been imperceptible at any given time, as the small steps added up, they became substantial. And so a doctor today does not merely have new protocols for treating diseases or interacting with patients; he has a fundamentally different role in society. To be specific, as late as the 1970s, doctors practiced with an autonomy that is almost unimaginable today. They did not face the severe cost-cutting pressures that came about with the rise of HMOs and other managed care systems. Because malpractice lawsuits were less common, they did not feel obliged to practice the "defensive medicine" so familiar to doctors today. They shared information without HIPAA (Health Insurance Portability and Accountability Act) restrictions. And their patients did not come armed with challenging questions culled from Internet research, because the Internet did not exist.

Today, doctors are less independent, less autonomous, and more accountable to lawyers, insurance companies, and savvy, well-read patients. But even for those sympathetic to the challenges doctors face—indeed, even for doctors themselves—it can be hard to deny that this shift was in some ways needed. Doctors are ordinary people, who do all of the things ordinary people do: they make mistakes; they have weaknesses, biases, and conflicts of interest (which they may try to conceal, or at least play down); and they sometimes act in their own best interest rather than in the best interests of their patients.

To maintain perspective, it is worth pointing out that parallel changes have occurred in society's attitudes towards men and women in other positions of authority, including politicians, CEOs (who in the post-Enron era are required to sign documents stating that they agree with their company's financial reports), and even—though it still seems disrespectful to mention this—ministers and priests. Of course it would be naive to imagine the past as an idyllic time in which doctors, politicians, and CEOs always did the right thing. Nevertheless, it seems true that, taken in aggregate, popular attitudes toward traditional authority figures have become more questioning, more suspicious, and in some cases more cynical.

It is also worth noting that doctors today approach their careers differently than doctors did in the past: many doctors now think of medicine as a job. An important job, a demanding job, a worthwhile job, yes—but a job nonetheless. Fewer doctors

are interested in devoting their lives wholly to the practice of medicine; they balance their careers against the competing interests of family and free time. Residents have demanded and received a limitation of work hours to 80 per week—and when the 80 hours are up, they are supposed to leave the hospital, regardless of the status of their patients. Medical students desire residencies in the so-called "lifestyle specialties," which offer controllable work hours, while specialties like general surgery and internal medicine draw fewer applicants. Of course, there is obvious good here, too. Doctors are able to have more balanced lives, and to play more active roles in their families. And the changes have made it easier for women to practice medicine without giving up the option to have, and care for, children.

For decades (if not centuries), doctors often have not been held accountable for their behavior or performance. As stewards of specialized knowledge, they were rarely evaluated, questioned, or challenged. That time has ended. The most obvious and familiar proof can be given in one word: malpractice. But there are other examples, which, though perhaps not as familiar to the general public, are nevertheless transforming the practice of medicine in very tangible ways. For example, there has been an increasing demand for the use of evidence-based medicine, that is, treatments that can be justified and supported by published data. There have been multiple efforts to link physicians' pay to their performance, rewarding doctors for using accepted treatments and achieving good outcomes. There have been more rigorous attempts to expose conflicts of interest. These most commonly involve financial ties to industry, but there are other, subtler ways in which doctors can be conflicted, even within individual, seemingly straightforward clinical encounters. There have been more systematic efforts to review and evaluate medical records, to rate physician performance, and the list goes on.

These developments do not imply that doctors are bad or evil, or that anyone perceives them to be. Rather, they represent a systematic acknowledgement that, although most doctors are trying to do the right thing most of the time, all doctors have biases, flaws, and weaknesses, and they make misjudgments and mistakes. But most importantly, these developments imply a general recognition that doctors face complex situations in which they must weigh competing interests and in which the right or best action may not be obvious to anyone.

It is my hope that this issue of *Virtual Mentor* will help medical students and new doctors form their own opinions about the changes that are occurring and about the most appropriate and productive responses to them.

Finally, I would like to thank the authors for the generous contribution of their time and energy, and for their unfailingly positive attitudes towards this project.

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Clinical Case
Is the Surgery Necessary *Now?* The Surgeon's Conflict of Interest
Commentaries by Howard Brody, MD, PhD, and David Zientek, MD

Dr. Hendry, a neurosurgeon in his first year of private practice, entered the exam room to see Ms. Davis. She explained that she had been experiencing back pain and paresthesia in her right leg. Her symptoms had begun one month before, after she had bent down to pick up her grandson. While examining her, Dr. Hendry noticed that Ms. Davis's right leg was slightly weaker than her left and that she had a right foot drop. After reviewing the MRI, Dr. Hendry saw that Ms. Davis had a ruptured L5-S1 disk and mild degenerative changes. He explained the MRI results to her, and said that she could either have surgery now or wait longer to see if her symptoms would resolve on their own. "I thought I might need surgery," she said. "Is that what you recommend?" she asked.

As the newest member of a three-surgeon practice, Dr. Hendry had the fewest patients and had performed the fewest surgeries. At the group's monthly meeting the week before, one of the partners assured him that it was normal for young surgeons to take a few months to build their practices. But Dr. Hendry also noticed subtle suggestions that his was moving slower than most. There was a joking reminder that, as surgeons, they were paid for doing surgery and that office visits alone would not "pay the rent." Ms. Davis was the first patient on his schedule for the following week.

Dr. Hendry felt confident that he could remove the extruded disk material and that Ms. Davis, who was 58 years old and in good health, would have a favorable outcome. She seemed to have come to his office expecting that she would need—and he would recommend—surgery, and she had medical insurance that would pay a substantial part of the bill.

Dr. Hendry also knew that, as he explained to Ms. Davis, some patients recover without surgery. The disk fragment can be resorbed by the body, relieving the pressure on the nerve. He also knew that it was impossible to predict if or when the symptoms might resolve, and, as he told Ms. Davis, the longer they were allowed to persist, the greater the chance of doing lasting damage to the nerve. As Dr. Hendry considered the case, he remembered his partner's joking that office visits would not cover the group's expenses. Dr. Hendry knew that—from a clinical point of view—it was one of those 50/50 calls in which the patient, having been given the necessary information, should make the decision, based on her own pain and reduced function.

He was still conflicted about how to answer Ms. Davis's question of, "Do you think we should schedule the surgery?"

Commentary 1
by Howard Brody, MD, PhD

In 1983, philosopher-ethicist Albert Jonsen contributed a brief article to the *New England Journal of Medicine* entitled "Watching the Doctor." Hidden beneath this rather uninformative title was an analysis that cut to the heart of medical ethics in a way that few others have, before or since. Jonsen said very simply that the central moral tension in medicine was that between the physician's altruism and self-interest [1].

Most of the literature in medical ethics, especially in recent times when we claim that we have rediscovered "professionalism," is a one-sided appeal to altruism, suggesting implicitly that self-interest is unworthy of the ethical practitioner. Jonsen was more modest and realistic. He suggested that the tension between altruism and self-interest would never disappear; it was a fact of life. It's the elephant in the room, and all the rest of medical ethics must proceed with full acknowledgement of its presence.

In our case, Dr. Hendry experiences the altruism-self-interest tension in an old form—the conflict of interest inherent in fee-for-service medicine. George Bernard Shaw famously observed nearly a century ago, "That any sane society, having observed that you could provide for the supply of bread by giving bakers a pecuniary interest in baking for you, should go on to give a surgeon a pecuniary interest in cutting off your leg, is enough to make one despair of political humanity" [2]. (Since Shaw lived well before the days of managed care, we don't know what he would have thought of the "political humanity" of a system that gives doctors greater pecuniary interest in doing less for the patient rather than in doing more. Given Shaw's bias that nature and healthy living usually did more for illness than did drugs and medical technology, he probably would have approved.)

Physician Interest versus Physician Duties
"Conflicts of interest" in medicine are often misnamed. Most of these situations are actually conflicts between an interest and a duty [3]. Dr. Hendry's *duty* to Ms. Davis is to explain carefully to her the pros and cons of the surgical and watchful-waiting options and not to rush to schedule an operation until he is reasonably sure that she has appreciated the existence of a nonsurgical option. Dr. Hendry also has an *interest* in increasing his income and in getting his partners off his back.

Dr. Hendry is tempted to elevate the interest to the level of duty, arguing that he owes it to his practice to pull his share of the weight. That would be a mistake, an obfuscation of his true professional priorities as a physician. Jonsen helpfully urged us to keep in mind the tension between altruism (or professional duty in this case) and self-interest. He was therefore opposed to talking about medical ethics as if self-

interest did not exist. But he would equally oppose talking about medical ethics as if professional duty and self-interest were of *equal* moral weight in cases such as Ms. Davis's.

Suppose that Dr. Hendry explains adequately the risks of surgery as well as the benefits of waiting, and Ms. Davis promptly says that she prefers the surgery (as this case description suggests that she might). Dr. Hendry is then in the happy position of seeing the tension between professional duty and self-interest dissolve. He is not obligated to try to talk a patient out of surgery once she has been informed and made up her mind, unless he has a well-supported clinical opinion that surgery would be contrary to her interests.

But even if Ms. Davis trots off happily to the operating room, Dr. Hendry's work of moral reflection is not yet done. Sometimes a moral tension is unavoidable due to the brute facts of the case. But other times, a moral tension is unnecessarily exacerbated due to the way that the systems within which we work are set up. If cases like Ms. Davis's—in which Dr. Hendry feels torn between doing what is best for the practice and what is best for the patient—occur frequently, then he must begin to question whether he has chosen the best work environment for himself. Perhaps his partners have different practice values from his and either expect a higher level of income as the norm or are willing to do surgery in cases that he would find questionable. Rather than try to resolve these persistent moral tensions one case at a time, Dr. Hendry might, in the end, be better advised to consider finding new partners or a different practice location, as difficult and as disruptive as that option would be.

Getting the balance between altruism (or professional duty) and self-interest just right is extremely difficult. In years past, American physicians may have steered too close to the altruism end of the spectrum, being available to their patients 24/7, commonly neglecting their families, and not infrequently dying prematurely of heart attacks. Today, American physicians (perhaps influenced by the enshrinement of greed as a desirable trait in American society generally) are arguably tilting too far in the self-interest direction.

To take just one example, it is very hard to find a U.S. physician who does not accept any gifts from the pharmaceutical industry, and a substantial number accept levels of payment that would appear to exceed the limits proposed even by weak codes of ethics [4]. What seems most worrisome about these benefits is less that physicians routinely accept them and more that an overwhelming majority of medical students, relatively early in their training, come to believe that they are *entitled* to such gifts [5]. The result is serious conflicts of interest that legitimately lead the public to wonder whether they can still trust physicians to advocate for them.

As a family physician, I will add a final bit of advice to Dr. Hendry. When I engaged in practice for many years, I gradually came to know many of the consultants in town. I knew the surgeons who would cut on anyone who walked in, and I also knew the surgeons who would talk with my patients and recommend against surgery if that

was the best option. Guess to whom I referred the most patients? If Dr. Hendry sticks to his scruples, he might in the short run upset his partners and the practice bottom line, while in the long run becoming a preferred consultant for the best primary physicians in his community. It is pleasant to think that sometimes virtue is more than merely its own reward.

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Commentary 2
by David Zientek, MD

When a physician encounters a new patient, he or she "professes" to have special knowledge and skills that will be used to benefit the patient [1]. Implicit in this claim is the understanding that the physician will act in the patient's best interest even at the expense of his or her own. But as soon as such a promise is made, the physician is at risk for conflicts of interest. Indeed it has been argued that such conflicts are the defining ethical dilemma in any profession, including medicine [2, 3]. Procedures performed by physicians have the potential to enhance not only their financial well-being but also their stature within the medical community. The conflicts of interest that receive public notoriety often involve physicians owning stock in, or receiving large payments from, companies for whom they do research or about whose products they speak in public. But the dilemma faced by the physician in the case presented here is far more common for those practicing clinical medicine. Dr. Hendry must make a decision which has the potential to enhance his financial productivity and his stature within his group but which may subject his patient to the pain, trauma, and cost of unnecessary surgery.

Even though some medical professionals have conflicts with society's goals or those of the institutions in which they practice, the most frequent involve their obligations to patients. A conflict of interest occurs when the physician's action is likely to

compromise the patient's trust by serving his or her own interests before those of the patient [3, 4]. It is notable that this definition implies that a conflict is present not only when a breach of obligations to the patient has occurred but also when there is *potential* for compromising the patient's interests.

How can conflicts such as those faced by Dr. Hendry be managed? First, it is important to realize that the majority of dilemmas in clinical practice are unlikely to ever come to the public's attention. As a result, the medical profession is dependent on its members having a well-formed conscience and being continually aware of the pervasive nature of conflicts of interest in practice. The four techniques most commonly used to regulate conflicts are: prohibition of certain activities that are particularly prone to exploitation of the patient with little likelihood of benefit, use of informed consent with disclosure of the conflict, adherence to professional standards of practice, and soliciting review of the activity by other members of the profession (e.g., second opinions) [2]. We can now apply these guidelines to Dr. Hendry's quandary.

Managing Conflicts of Interest

The first technique for regulating conflicts of interest is to prohibit an activity or divest one's involvement in an entity if the nature of the activity or involvement is extremely likely to compromise one's obligations to the patient. It is difficult to expect Dr. Hendry to give up performing lumbar surgery to avoid any possibility of recommending a surgery which might not be strictly necessary. In fact, patients would suffer from limited access to such surgery, when indicated, if large numbers of physicians removed themselves from these types of interventions over concerns about conflicts of interest. If, however, he believes that his partners are taking advantage of vulnerable patients, it may be wise for him to find another practice to avoid being placed in situations where he is likely to act against his patients' interests.

This form of regulation might also come into play for the physician who has a major interest in a company or device used for a particular type of surgery—if, for example, the physician invents a type of implant that compromises his or her ability to objectively choose between different options for a patient. If this surgeon found it difficult to recommend a competing device, even one that was more appropriate for treatment of a particular patient, he or she might find it necessary to divest interest in the device or give up clinical practice to work for industry.

A robust use of informed consent is more applicable in the case presented. In instances such as this, where both conservative and surgical approaches are reasonable, providing the patient with a careful discussion of the various options with the risks and benefits of each is crucial to avoiding recommendations that are based on the physician's interests. If there is truly no clearly preferred approach in the medical literature, the physician must be careful to avoid subtly introducing a bias in this conversation that is not grounded in purely clinical facts. Given appropriate information, many patients will be able to decide on a course of action

based on their particular philosophy and tolerance for risk. Still, many other patients will want or need a recommendation from the physician. It appears that Dr. Hendry has appropriately informed Ms. Davis of the options available, so how should he advise her? It is here that professional guidelines may be helpful.

Many specialty societies publish clinical guidelines for the diagnosis and treatment of various conditions based either on review of the literature or on professional consensus of opinion, when the literature does not provide clear guidance. When there is a clear consensus among published studies, following these guidelines can help the physician ensure that he or she is not acting primarily from self-interest in recommending a particular therapeutic option. As in the case presented, however, there may be no definitive guidance, and the recommendations will have to allow for clinical judgment in the choice of treatment. If guidelines suggest that an initial trial of conservative therapy is an acceptable option without major risk of progressive neurological dysfunction, Dr. Hendry might be wise to recommend such a trial for four to six weeks, especially if he is concerned about his motivation for recommending surgery. If no professional guidelines have been issued, he should make an effort to follow the best available data from the literature.

The final option to minimize the danger of conflicting interests in the case presented is to obtain consultation from other medical professionals. Dr. Hendry could consider discussing the case with colleagues in his practice. Indeed, one of the advantages of a group practice is the availability of partners with varied experience and interests to provide a sounding board about the appropriateness of a recommendation. Some have even argued in a situation analogous to this case—that of angioplasty or stenting versus medical therapy for stable angina—that the cardiologist who places a stent or performs angioplasty on a patient should not be the same one who performs a diagnostic arteriogram and makes the decision to pursue medical therapy versus an intervention [5].

Given the subtle pressure placed on Dr. Hendry by his partners, he may be uncomfortable with the advice he would receive in this case. Because he has recently completed training, a call to a respected mentor from his training program or a senior member of his local medical community may make him more comfortable with his recommendation to his patient.

In summary, the best defense against compromising obligations to patients is constant awareness of the pervasiveness of conflicts of interest in medical practice. When a conflict is identified, consideration should be given to prohibiting the activity if the likelihood of compromising the patient's interests is sufficiently high. If not, the clinician should depend on meticulous informed consent, use of professional guidelines if available, and consultation with partners or trusted senior physicians.

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Clinical Case
Avoiding Disincentives to Treat in Designing Pay-for-Performance Measures
Commentary by Meredith B. Rosenthal, PhD

Mr. Hill arrived in the emergency department (ED) dehydrated and disoriented. He had a history of type II diabetes, hyperlipidemia, and poorly controlled hypertension, and when he came to the ED his blood glucose measured 750. After receiving normal saline and insulin intravenously, Mr. Hill was admitted to the internal medicine floor where he was stabilized and kept overnight for monitoring. The next day, the internist who admitted Mr. Hill requested a consultation from the hospital's endocrinologist, Dr. Vernon.

Dr. Vernon learned from Mr. Hill's chart that his primary care physician had prescribed a reasonable medication regimen, although a few of the medicines were outdated and considered second-line. He also learned that Mr. Hill had a history of noncompliance, frequently missed appointments, and had come to the ED with hyperglycemia three times that year. His HbA1c was elevated at 9.5 percent. As he read the chart, Dr. Vernon could not help but think that Mr. Hill would be a difficult patient to manage and that, based on past behavior, he was not likely to do what was necessary to bring his glucose, cholesterol, and blood pressure under control. Dr. Vernon also knew that, under the hospital's new pay-for-performance system, he was expected to have two-thirds of his diabetic patients at or below an HbA1c of 8 percent and that he could be penalized if he did not meet this goal.

Dr. Vernon explained to Mr. Hill that he was going to prescribe different medications to control his diabetes and that he would write a letter to his primary care physician explaining the reasoning behind the changes. "If you have any problems in the future, you can call or have your doctor call, and I'll be happy to see you in the clinic," Dr. Vernon said.

Four months later Mr. Hill went to the ED again with severe hyperglycemia and was again admitted to the medicine floor, where Dr. Vernon was again asked to see him. When Dr. Vernon reached the floor, the internist was hostile. "This is the fifth time he's come in this year. His primary doctor clearly doesn't know how to handle this problem. You are an *endocrinologist*. Why didn't you schedule an appointment to see him in clinic?"

Commentary
Dr. Vernon finds himself in an increasingly common set of circumstances: the health system that he works for is tracking his performance based on a set of process and

outcome measures and, in his case, making part of his pay contingent upon attainment of specific goals. Recent estimates suggest that about half of U.S. commercial health maintenance organizations (HMOs) are using this type of pay for performance [1]. Other data document many more pay-for-performance programs sponsored by other health care payers, including preferred provider organizations (PPOs), business coalitions, and state Medicaid agencies [2, 3].

Unlike the one described in this case, most pay-for-performance programs apply to primary care physicians (although medical specialists, like Dr. Vernon, are increasingly becoming targets) and reward medical groups rather than individual physicians [1]. The share of total pay that is accounted for by performance incentives in the U.S. is typically small—ranging from 1 to 10 percent—and rewards are associated with performance on a small number of quality measures—five, on average. Current pay-for-performance criteria sets include both process and outcome measures of quality, patient experience, and cost. While process measures of quality (e.g., appropriate medication for asthma, cervical cancer screening) were predominant in pay for performance in the past, emphasis is increasingly being placed on outcome and cost measures, reflecting a growing concern that performance pay be tied more closely to payers' ultimate objectives rather than to just the delivery of evidence-based care. So-called "intermediate" health outcome measures such as control of HbA1c (as described in the case above), blood pressure, and cholesterol are among the most common adopted for ambulatory care. While these *do* reflect health status, they heighten concerns about whether performance-based measurement can capture the *quality* of medical care or a host of other factors such as patient behavior, socioeconomic factors, and chance.

Does Paying for Performance Improve Care?

A number of recent literature reviews [4-6] have concluded that evidence to support the widespread enthusiasm for pay for performance is lacking. While the overall picture that emerges from the most rigorous evaluations of pay for performance is mixed at best, studies demonstrate the potential for target payment incentives to improve physician performance. For example, a study that compared hospitals participating in the Medicare pay-for-performance demonstration program to those subject only to quality data reporting requirements found small but significant differences in the rate of improvement on target measures [7].

Even if substantial benefits accrue from pay for performance, there will also be negative consequences. The list of possible unintended effects includes excessive focus on target measures, up-coding (that is, making patients seem sicker than they are so risk-adjusted targets are easier to reach), dampening of intrinsic motivation, redistribution of resources from safety-net clinicians to those who serve patients of higher socioeconomic status, and, last but not least, the one portrayed in our case—dumping of difficult-to-treat patients. All of these problems and evidence of their existence have been described extensively elsewhere [8-10], but two points are worth highlighting here. First, the fact that pay for performance will have some unintended negative consequences is not a sufficient reason for concluding that paying for

performance is ineffective or unethical. All payment methods have pros and cons, and decisions about payment reforms must be informed by a careful evaluation of each. Second, all of the unintended consequences noted above can be minimized or aggravated by specific aspects of program design and implementation, so payers should take account of them not only in the decision of *whether* but also *how* to pay for performance.

How Can Pay for Performance Be Designed To Address Dr. Vernon's Conundrum?

The pay-for-performance program described in the case is designed in a way that is particularly problematic with regard to exacerbating physician incentives to avoid sicker and less-adherent patients. It focuses on outcomes, rather than on process (e.g., did the patient receive appropriate testing, counseling), which have greater potential to be affected by patient factors (although process measures, too, are subject to patient adherence). Moreover, contingent payments are allotted on an all-or-nothing basis: if Dr. Vernon achieves the HbA1c goal with at least two-thirds of his patient he gets the entire reward; if he falls below this threshold by any magnitude, he gets nothing. Third, the goal does not take account of patient differences in any way—getting a patient like Mr. Hill to an HbA1c of 8 is a more difficult task than getting a stable, adherent patient to an HbA1c of 8.

There are at least two ways that the pay-for-performance program could lessen Dr. Vernon's financial incentive to avoid Mr. Hill. First, rewards could be calculated as a continuous function of the number of patients who receive optimal care (assuming that the right measure of optimal care is an HbA1c less than 8). So, for example, the program could pay physicians $50 for each patient whose HbA1c is less than 8. Then the impact of keeping a non-adherent patient on a physician's panel is far less than it is when the entire bonus is lost because of this patient. Second, instead of using a single goal for each patient, the program could make the performance pay contingent on improving HbA1c from baseline. So for all patients outside the range of desired HbA1c levels, some (or full) credit would be given for 10 percent reduction, for example.

It is by no means clear that pay for performance will always be implemented in ways that ensure net benefit for patients. But there are strategies for designing incentives that minimize pressure to avoid the hardest cases and maximize incentives to improve care. Adoption of such approaches will be critical for the legitimacy and ultimate success of pay for performance.

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Clinical Case
Competing for the Physician's Attention after Hours
Commentary by Richard Gunderman, MD, PhD, MPH

Dr. Leigh wanted to go home. He exited the elevator and walked toward the parking garage. It was 6:00 p.m., and Dr. Leigh, an internist, had just finished making his afternoon rounds at a community teaching hospital. It had taken longer than expected. Two of his patients had had family members in the room when he entered, and had each asked several questions. Dr. Leigh had told his wife that he would be home by 5:30, and he was worried that she would be angry with him because she was frustrated the last time this happened—yesterday. He was fishing for his car keys when his pager went off.

The message said that Mr. Thompson, the husband of a patient Dr. Leigh had seen that afternoon had just arrived at the hospital. Dr. Leigh called the charge nurse, who reported that Mr. Thompson was sorry that he had not been present when Dr. Leigh rounded—he had gone to the cafeteria to pick up dinner. Now he "anxiously" wanted an update on his wife's status and the plan for her care.

Just before he left for the day Dr. Leigh had checked out his patients to the doctor on night float, a second-year resident whom he trusted. He knew that the resident was capable of managing any acute events, but he could not deny that, as the primary physician, he was the person who could best explain Mrs. Thompson's status and treatment plan to her husband. He also knew that, were he in Mr. Thompson's position, he would want to hear about his wife's condition from her doctor.

Nevertheless, Dr. Leigh was frustrated by the request to return to the floor. His contract stated that on non-call weeks, his clinical responsibilities ended when the night float resident arrived at 5:00 p.m. Moreover, these extra calls seemed to be happening more frequently—twice this month he had missed dinner because of them.

As he considered whether or not to return to talk to Mr. Thompson, his cell phone rang. He recognized his home number and was sure that his wife or one of his children wanted to know when he would be home.

Commentary
Dr. Leigh faces a number of interesting choices at multiple levels. Immediately, he faces a choice between his family and his patient. He has told his wife that he will be home by 5:30 p.m. and is already a half hour late. Any additional time at the

hospital, for whatever reason, will make him later still and leave even less time with his family. On the other hand, Dr. Leigh knows that, were he in the shoes of Mr. Thompson, he would very much appreciate the opportunity to speak with his wife's physician that evening.

Before examining the larger choices facing Dr. Leigh, it is worth noting that he might resolve the situation as it stands in several ways. First, he might call his wife, explain the situation, and see if she and their children would be willing to wait another hour or so for dinner. If he makes a habit of this, his family's patience will wear thin, but they are likely to understand if he is late for dinner once or twice a month. Alternatively, he could phone Mr. Thompson, explain the situation, answer any pressing questions, and offer to arrange a time to discuss matters further with him the next day. Then Dr. Leigh could offer to have his trusted resident stop by the room that evening to discuss the case. This would not only help Mr. Thompson but would also provide a good learning experience for the resident.

One course of action that Dr. Leigh should avoid is citing his contract as a basis for refusing to speak with Mr. Thompson. No one—not the patient, the patient's family, the physician, the physician's family, or the nurses and other physicians caring for the patient—should find such an argument persuasive. The overarching medical objective is to make sure that the patient is well cared for, not to ensure that contractual obligations are met. A contract represents the lowest common denominator of economic and legal conduct, not a full account of a physician's professional responsibilities. The key question is this: How would I want a colleague to care for my parent, sibling, or child in this situation? Trust and compassion are at stake here, and these fiduciary responsibilities trump any opportunity for a quick exit that the contract might seem to provide.

In a longer-term view and at a deeper level, this situation presents Dr. Leigh with a choice about how to organize his practice. The failure to plan is a major source of avoidable stress and consternation. What steps can he take to reduce the tension between his personal and professional responsibilities? In medicine, no amount of planning can prevent every missed commitment, but the increasing frequency of conflicts like this invites Dr. Leigh to address the issue at a systemic level. Could he, for example, ask nursing staff or an office assistant to schedule meetings each day as appropriate with hospitalized patients and their families? Might Mr. Thompson be asked to remain in his wife's hospital room between the hours of 4:00 p.m. and 6:00 p.m., during which time Dr. Leigh hopes to stop by and discuss his wife's care?

Dr. Leigh, like every member of the medical fraternity, is both a physician and a human being, with personal responsibilities such as parenthood, marriage, and friendship. A well-organized medical life is not one in which the physician races back and forth between two rooms, one professional and one personal, each time slamming shut the door and apologizing profusely. A well-organized medical life is a symphony, in which different sections each play their parts, sometimes separately and sometimes together, but always forming a harmonious whole. The personal and

professional parts of life should not be in conflict with one another. Instead they should work together and enrich one another. What could Dr. Leigh's family learn if he shared stories of his workday at the dinner table, and how would Mr. Thompson benefit by realizing that Dr. Leigh, too, goes home to wife and children?

In his *Nicomachean Ethics*, Aristotle states that human excellence involves balance [1]. Often mistranslated and misunderstood as a mean, as though excellence lay in being average or even mediocre, the Greek term, translated as "balance," testifies to the fact that human beings are composite creatures. Our nature is biological, but it is also moral and intellectual, and we must strike the appropriate balance in each sphere. If we do not eat, we die, yet eating too much can be bad for us. In the moral sphere as in the biological sphere, virtues such as courage and generosity require equilibrium. The courageous person is neither timid nor foolhardy, and the generous person is neither miserly nor prodigal. Each requires its own balance. So too does living excellently, which means balancing well the different parts of our nature and the different responsibilities we assume in life.

The greatest joy comes from leading a life that is firing on all cylinders. Life might be simpler if we bore only professional responsibilities and thus did not need to worry about family commitments. Similarly, it might be simpler if we could forget about professional life and focus all our energy on our families. Yet the simple life is not necessarily the best life, at least not for most of the people who pursue careers in medicine. More than a few people are able to strike the right balance between the personal and the professional, and to do so with genuine grace and aplomb. Such people are role models, and we would do well to learn from them. For them, life without family or profession would be less challenging, less rewarding, and ultimately less meaningful. Having both is not easy, because it requires the regular exercise of additional judgment and discretion, but when balanced appropriately, each enlivens and enriches the other.

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Related Article

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Medical Education
Evidence—an Input, Not an Answer
Robert M. Centor, MD

Evidence-based medicine (EBM) has become a buzzword in medicine. Many authorities urge us to use EBM to make medical decisions. How can anyone oppose its logical and statistical guide to medical care?

As I read the EBM literature, I see a good idea taken to extremes. EBM should be treated as another tool in the toolbox that we use to make medical decisions—not the only and final word. As physicians, we must always interpret the data ourselves and consider it in the context of the patient. A few examples should illustrate what I mean.

A few years ago several retrospective analyses demonstrated that patients with pneumonia who received antibiotics within the first four hours of their hospital visit (starting from ER registration) had better outcomes than those whose antibiotics were delayed [1]. While this evidence does not come from a randomized controlled trial—such a trial would be unethical—it was considered to be the best available evidence. Thus, treating patients who had pneumonia within four hours of their arrival at the hospital became an "evidence-based" rule. Both the Joint Commission for the Accreditation of Healthcare Organizations (JCAHO) and the Centers for Medicare and Medicaid Services (CMS) adopted this rule as a performance measure and, subsequently, CMS endorsed it as a component of hospital pay-for-performance criteria.

Now consider this thought experiment. What would be likely to happen if hospitals began to receive incentives to increase the percentage of patients with pneumonia who received their first antibiotic dose within four hours?

Your conclusion and the real life results are the same: When you increase sensitivity, you decrease specificity. Said another way, in attempting to increase the percentage of true positives (accurate diagnoses of pneumonia) you will increase the percentage of false positives (those diagnosed and treated who did not have pneumonia).

Further research has explained the results of the study that inspired the "four-hour rule" [2, 3]. The patients who did not receive antibiotics within several hours of admission had atypical presentations; they had comorbidities that made their diagnoses less clear. The four-hour treatment guideline was based on a piece of

evidence that, by extrapolation, became a rule that may conflict with good clinical judgment.

Now some EBM devotees will cry foul, saying that JCAHO and CMS should never have endorsed the rule because the evidence did not meet clinical practice standards. I counter that, in fact, this *is* the problem with EBM: rather than analyzing the evidence in the context of a variety of clinical situations, JCAHO and CMS focused solely on the data. Too often evidence is invoked in this context-free way.

And the evidence changes, of course. For many years we routinely prescribed estrogens at menopause to prevent cardiovascular complications. We based this practice on the best evidence available at the time. Later, better evidence came along which showed that we were wrong.

Current EBM treatment guidelines for chronic atrial fibrillation come from randomized controlled trial (RCT) data [4]. First the guidelines state that all patients should receive oral anticoagulation medication. Next, they state that one should assess the risks of anticoagulation, and make appropriate decisions. Many recommendations and evidence-based proclamations like these come from RCT data. But what happens when our patients do not fit neatly into the RCT criteria? If our patient would not have entered or been eligible for the RCT, then how should we assess him? EBM gives us a reasonable starting point. It provides input and guidance to our decision making. But we must apply clinical judgment to understand the risks and benefits of prescribing anticoagulation medication to a specific patient.

Some advocate that evidence-based guidelines themselves list all the contraindications for use of, in this example, anti-coagulation drugs in an atrial fibulation patient. I prefer that we maintain the latitude to make such assessments ourselves, based on the individual patient's clinical picture.

The value of EBM comes from a careful, systematic review of the existing literature. As long as we put that information into context, it can help us make good patient care decisions. When EBM becomes distorted into a requirement for strict adherence to rules (which rarely consider clinical context) then we have a problem. Nietzsche said, "There are no facts, only interpretations" [5]. Too many EBM devotees forget the interpretation part.

EBM is a good start, but good clinicians do not believe that it is the final answer. It provides knowledge, but it does not provide wisdom. Caring for patients requires applying information with wisdom for the benefit of the patient. Osler's well known quote applies here: "The good physician treats the disease; the great physician treats the patient who has the disease" [6].

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Related Articles
Does Evidence-Based Medicine Offer Fair Benefits to All? December 2004
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Journal Discussion
Outside the (Pill)box: Can Physician Performance be Assessed by Objective Measures?
Sanjiv Bajaj, MD

Davis DA, Mazmanian PE, Fordis M, Van Harrison R, Thorpe KE, Perrier L. Accuracy of physician self-assessment compared with observed measures of competence: A Systematic Review. *JAMA*. 2006;296(9):1094-1102.

Physicians have long believed that self-learning and experience appropriately refine our patient care skills. We have been taught that we can analyze our own deficiencies and use these observations to guide future improvement. Our ongoing educational requirement thus consists largely of the unstructured and self-guided continuing medical education (CME) credit system. David A. Davis and colleagues challenge this belief in their *Journal of the American Medical Association* article, "Accuracy of Physician Self-assessment Compared With Observed Measures of Competence" [1].

The authors conducted a systematic review of studies that compared physician self-assessment with independent markers of physician competence. Because their inclusion criteria were so narrow, they found only 17 articles, three of which use two external comparisons each, resulting in a total of 20 comparisons between self- and external assessment [2]. Thirteen of these suggested either no relationship or an inverse one between the two forms of assessment; seven indicated a positive relationship. The authors concluded that physicians "have a limited ability to self assess," and that professional development "may need to focus more on external assessment" [3].

The external measures of competence used in the studies that Davis et al. analyzed were: objective, structured clinical exams (OSCEs); reports of encounters with standardized patients; performance on simulation training and in other exams; chart audits (one study); and ability to explain concepts of evidence-based medicine to a blinded interviewer. Many of these measures are less than ideal. OSCEs and standardized patients, as many of us who have experienced them would attest, are often painfully artificial encounters, even for medical students. We develop strategies for maximizing our performance on these tests that we would never employ in practice. The authors' claim that "training may reduce the variation between self- and external assessments by encouraging the internalization of objective measurements or benchmarks of performance" [4] supports the conclusion that performance on these tests relies largely on test-taking strategies. We must question whether test-taking ability is a valid pursuit for doctors. Why should we

care about these objective measures if they have no bearing on clinical performance? Unfortunately, only one study looked at clinical outcomes.

Objective measurement nevertheless surrounds physicians from the time they enter medical school. Multiple-choice tests have gained a following in medical school because of their perceived objectivity and the ease of grading them. But they test knowledge at the most basic levels of connections. Graded essays on medical topics would be more appropriate and would force students to synthesize and apply information.

Objective versus Subjective Assessment

Of much greater concern is whether we desire the objectification of all aspects of medicine. Most of our field concerns subjective patient complaints. The experience and judgments physicians bring to the clinical encounter are likewise subjective. How, then, can objective measures accurately assess our performance? If we wish to determine the quality of the physician and his self-assessment, perhaps we should choose a more subjective measure.

Subjective phenomena abound in medicine. The placebo effect undoubtedly exists. It proves perplexing to many because it often leads to resolution of objective as well as subjective symptoms. That it has a greater effect on the latter, however, implies that our minds control the way we experience symptoms. If subjective experience mediates all symptoms, and patients are the ultimate judge of their conditions, how can we judge physician performance solely on objective measures [5]? By focusing on the objective, we neglect the "art of medicine."

A complete objectification of medicine would obviate the need for physicians. It would allow for design of a computer algorithm patients could use instead of visiting doctors. This program would provide perfect evidence-based recommendations in response to patient input. But we know that physicians serve an important role in filtering patient complaints, organizing them into a meaningful framework, and tailoring treatment to the patient. Moreover, effective clinicians can alleviate suffering with their words and actions. A disproportionate focus on objective measures risks losing these critical aspects of our field (and putting us out of a job).

In fact, the very studies on which we rely for data—randomized controlled trials—contain critical flaws. This type of research intuitively seems ideal for teasing out relations, but we must realize that almost nothing in medicine applies to 100 percent of patients. The fact that treatment A positively impacts 80 percent of the subjects, while treatment B helps 50 percent of the participants, does not make A superior to B for a given individual, despite the evidence. What's to say that experience couldn't teach a physician which patients would respond better to the "less effective" treatment? Furthermore, every study carries a quantifiable statistical probability of incorrectness. Our "objective" data, therefore, cannot attain the status of "universally true."

One medical school professor during my second year said, “Half of what we teach you will be wrong by the time you finish residency.” Every year we uncover new mechanisms that shed light on disease and invalidate old concepts, many of which appeared incontrovertible at the time. While the professor’s prediction may have been an overstatement, the principle behind it holds—we cannot be sure of anything we currently believe.

I do not mean to denigrate objective measures as devoid of value. They advance our understanding and provide us with a basis for development—but they are nothing more than a basis. We must not allow the allure of easy black-and-white comparisons to cover the haziness behind our numbers. We must not relegate the subjective to the waste bin of medicine.

Davis et al. pursue a laudable goal in evaluating physician self-assessment. Perhaps they are correct when they suggest that our current measures need more development to provide accurate data. We must design evaluation methods that account for objective and subjective measures, while allowing for differences in physician techniques. Above all, such measures should gather information about the subjective experience of the patient. This data might not be easily quantified in a study, but it might facilitate physician-guided improvement in medical practice. Perhaps we should de-emphasize objective external quantification of physician prowess and instead devote our energies to creating better methods of facilitating practitioner improvement.

Notes and References

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Clinical Pearl
Diagnosis and Treatment of Viral Meningitis
Alexandra Leigh, MD

Viral meningitis is inflammation of the leptomeniges due to a viral agent. It is the most common cause of meningitis, with an annual incidence of 10 to 11 people per 100,000. Viral meningitis occurs most commonly in those under the age of 30, with a predominance in neonates and children. The disease is usually self-limiting, rarely requires hospitalization, and symptoms typically resolve in 7-10 days. Enterovirus is the most common etiologic agent and is responsible for 85 percent of viral meningitis cases. The peak season for enterovirus is during the summer months when it is hypothesized that warm weather aids in its spread [1].

The symptoms of viral meningitis are indistinguishable from those of bacterial meningitis or aseptic causes of meningitis. Classic symptoms are fever, headache, and neck stiffness (nuchal rigidity). Young children or infants may simply present with fever and irritability. Other symptoms include photophobia, myalgias, nausea and vomiting, diarrhea, lethargy, and even upper respiratory symptoms (which may precede or occur concomitantly with the classic symptoms) [2].

Evaluating Meningitis
Physical exam maneuvers for nuchal rigidity include the Kernig and Brudzinski signs. Kernig's is performed by having the supine patient, with hips and knees flexed, extend the leg passively. The test is positive if the leg extension causes pain. The Brudzinski's sign is positive when passive forward flexion of the neck causes the patient to involuntarily raise his knees or hips in flexion. Despite their historical significance, a positive result from either test has not been shown to be reliable indicators of meningitis.

It is critical to distinguish between bacterial and viral etiologies because the course of bacterial meningitis is rapid and potentially deadly. History and physical exam alone are not sufficient to confirm the diagnosis, especially in young children or infants. Meningitis is definitively diagnosed with a lumbar puncture, which in viral meningitis typically reveals clear cerebral spinal fluid (CSF) with elevated white blood cell counts predominated by lymphocytes, in contrast to the PMNs (polymorphonuclear leukocytes) that typify bacterial etiologies. CSF glucose levels are characteristically normal; protein may be normal or slightly elevated.

CSF analysis should include a gram stain, acid-fast stain, and culture to further aid in diagnosis. If available, polymerase chain reaction (PCR) for presence of genomic

material from likely viral pathogens can quickly assist in determining whether a patient's meningitis is bacterial or viral. PCR tests are currently available for enterovirus, cytomegalovirus, herpes simplex virus, and HIV pathogens. A positive PCR test for enterovirus in the emergency room can save a patient with mild symptoms from an unnecessary hospital admission, assuming proper support and provisions at home. Keep in mind that mild meningeal symptoms in the setting of prior antibiotic use may mask a fulminant cause. As with any potentially infectious picture, it is important to clarify immune status, inasmuch as mycobacterial and fungal causes are more likely in those with compromised immune systems.

Treating Viral Meningitis

Treatment for viral meningitis is primarily supportive, especially in the case of enterovirus. Some patients require hospitalization for fluid administration and pain relief, while others can be safely treated at home. Exceptions include varicella and herpes simplex virus meningitis, which, if severe, are treated with antiviral agents such as acyclovir.

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Related Article

In Search of Obscure Diagnoses: *House*, March 2007

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Health Law
State Medical Board Attempts to Censure Physician Communication Styles
Garrett Kerr

"You should purchase a gun and end your suffering, rather than live with extensive brain injuries," he said to one patient [1]. "You need to lose weight. …If your husband were to die tomorrow who would want you?" he said to another [1]. These statements were made by Terry Bennett, a New Hampshire physician, to patients who were under his care. Hurt by their doctor's insensitive comments, the patients reported his behavior to the New Hampshire State Medical Board. Determining that Dr. Bennett was in violation of their code of professional ethics, the board informed him that they would hold an adjudicatory hearing to evaluate whether his comments were so unprofessional as to warrant the suspension of his license to practice medicine.

Was this a commendably swift action by a medical board to deter unprofessional action, or was the board overstepping its relatively limited scope of authority? This article will discuss the authority and role of state medical boards and will attempt to discern how boards may best serve the medical community and the general public. Its scope will be behaviors that, while they violate standards of ethics and professionalism demanded of physicians, fall short of criminal acts.

In response to the action taken by the New Hampshire State Medical Board, Dr. Bennett filed a claim against the board, contending that his comments were a form of speech or activity that could not be policed by the board. Dr. Bennett argued to the Superior Court of New Hampshire that simply being a member of a licensed profession did not strip him of his First Amendment right to free speech, and he successfully petitioned for an injunction against the board. Specifically, the injunction forbade the board from further pursuing an investigation that could result in the suspension of his medical license. The court sided with Dr. Bennett, ruling that, although a physician subjects himself to the regulations and responsibilities set by that particular licensing board, the acceptance of this license does not abridge his right to speak freely [1].

Like many other states, New Hampshire has adopted the American Medical Association's Principles of Medical Ethics. The 160-year-old principles are a comprehensive guide to the ethical situations and dilemmas that medical professionals may encounter from the start of medical school to their final days of practice. The most basic role of the physician is summed up in Principle I, "A physician shall be dedicated to providing competent medical care, with compassion

and respect for human rights" [2]. This edict comports with what we have come to expect from a physician, but is it enforceable? And, if so, by whom?

Dr. Bennett certainly did not demonstrate the compassion that is essential in quality medical care. The medical board's intervention was stopped by the Superior Court of New Hampshire, however, because the principle under which the board wished to punish the physician was unconstitutionally vague. In our system of jurisprudence, a rule that seeks to limit an area of protected speech—that is, speech that is free to be spoken by all—must be narrowly tailored to fit a reasonable state objective. The court stated that the principle provided no details as to what speech actually violates the dignity and human rights of the patients. Furthermore, the court was uneasy with the subjective evaluation it had to make regarding the sensitivity of listeners when assessing whether their dignity had been offended (the court generally prefers an objective "reasonable person" standard) [1]. Even though the court felt the AMA's medical ethics principle was not narrow enough, it did concede that it would be unreasonable to expect the AMA or any other group to exhaustively define every utterance that was a violation of human dignity. Nevertheless, the court overruled the medical licensing board's claim of authority to police its members, and granted Dr. Bennett's injunction.

It appears that the only forum a patient has for redress of an excessively insensitive (and unethical) physician is state court. If the court system decides to make the ethical guidelines written or adopted by its state boards toothless, they implicitly invite all requested reparations for wrongs at the hands of their doctors to be heard at the bench. As demonstrated in the Bennett case, the superior court used a constitutional right to strike down the impending action of the state medical board, thus substantially decreasing the board's authority to police physicians who behave in a rude, poor, or otherwise unprofessional manner toward their patients.

Another constitutional concept, however, may lessen the load of the court's already burdened docket and return some authority to the state medical boards. The Seventh Amendment to the Constitution provides that in suits involving more than $20, the defendant is guaranteed a trial by a jury of his peers. This provision forces us to ask, who *are* the physician's peers—the state medical boards, a state or federal judge, or 12 randomly selected laymen? The most obvious answer is the state medical boards. Who better than the board of physicians in charge of licensing guidelines to determine whether a physician has breached one of the ethical regulations of which they are custodians? The board's serving as the judiciary when a physician was accused of violating an ethical principle would ensure that the rule was interpreted as the board had intended and would provide the physician with a jury of true peers—fellow physicians familiar with the standards of practice and codes of ethics.

But who can patients turn to if their doctor commits an ethical breach? The answer may be more complex than simply deciding on a forum to hear the allegation. It is the state legislature that adopts a format for ethical regulations for the professions, usually codified as state medical practice acts. The state may choose to create its own

standards or to adopt in part or in whole the ethical guides written by large bodies such as the AMA. Using the example of Dr. Bennett again, state law clearly sets forth that rudeness and poor bedside manner may not be addressed by the board unless accompanied by another, more dire complaint [3]. States that have adopted a structure like New Hampshire's for hearing grievances essentially don't allow the board to handle complaints against rude physicians who tarnish the professional image.

What is one to conclude? There are at least two somewhat conflicting views. The first would have us believe that the system is fine as-is and needs no change. The proponent of this view would state that rude, unprofessional behavior is a self-limiting characteristic. The laws of the market demonstrate that, if someone is bad at what he does, his business will suffer for it. Not unlike the millions of dollars corporate America spends on advertising, the compassionate care physicians provide to their patients is the currency that buys them the word-of-mouth recommendations that result in patient referrals and a successful practice. If word gets around that a doctor is rude, condescending, and insensitive, an action by the state medical board will be unnecessary because that physician's practice will eventually dwindle.

The alternate view recognizes the shortage of medical care and the growing number of Americans who need it. As the population grays and more regular medical attention becomes necessary, patients may not have as much choice in selecting their physicians. They may be forced to remain with humiliating, rude physicians who get away with ignoring their patients' dignity solely because of the demand on a stressed field. This view demands changes in the current level of authority vested in state medical boards. Acting on this interpretation would require state legislatures to revisit their application of ethical standards and grant greater latitude to state medical boards to police their members. The boards must be given an authority that wields genuine power, or else their decisions will not be respected, and their role in enforcing ethics will remain weak.

Granting state medical boards the authority to police not only severe violations of ethical standards but also minor violations, will provide patients an adequate forum for redress of their grievances, while at the same time lessening the burden on an already full state court docket. Allowing the board latitude to exercise its role as the ethical custodian for the medical profession will maintain the luster associated with the respected role of compassionate healer, kind physician, and trusted doctor.

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Related Article
The Role of State Medical Boards, April 2005

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Policy Forum
Accountability via Chart Audits
Abraham P. Schwab, PhD

In this short article, I will make a case for physician accountability via audit that moves away from some traditional conceptions of accountability. On my view, to hold some individual or organization accountable is to attempt to identify areas where improved performance is needed. I will start with some reasonable targets for medical practice and then discuss some strategies that can improve our aim. Of course, to identify the best strategies, we will have to take account of the current state of medicine.

My conception of accountability will not require an individual or organization to answer for past actions, and it will not threaten physicians with punitive or disciplinary responses for failure to act. My decision to move away from conceptions of accountability that do so is informed by social and cognitive psychology, which has shown that requiring justification or threatening punishment does not always mold behavior; indeed, in many cases, it entrenches confidence that what was done was correct [1].

Confession
Waiting patiently in an exam room, I always want the same things: accurate information and reliable predictions. Post-EKG, I want to hear that I don't have any clogged arteries—but only if I don't have any clogged arteries. When I'm told about my treatment options for taking care of my clogged arteries, I want the effectiveness and the odds of complications from an angioplasty or a stent placement to be reliable. If I'm going to get angioplasty, I want to be told how likely it is to keep me from having a heart attack. If I'm going to get a bare metal stent (BMS), I want to be told the chance of restenosis, and if I'm going to get a drug-eluting stent (DES), I want to be told that it requires longer antiplatelet therapy and includes a higher risk of late stent thrombosis. And again, I want *all* of these predictions to be reliable. Moreover, I want this same accuracy and reliability every time I'm in the doctor's office whether for a prescription, surgery, or the use of a medical device.

Obviously I am an involved patient-decision maker, and I recognize that other patients may not want all this information and all these predictions. Many patients don't want to be bothered with the details of the decision-making process and trust their internist or cardiologist or pediatrician to make good decisions for them. These patients also want the physician to be able to make a reliable prediction about the chances of restenosis and late stent thrombosis, even if she's not sharing the

information with them. What I'm trying to say is that accurate information and reliable predictions are cornerstones of patient autonomy *and* professional judgment. At present, however, the structure of medical research and medical bookkeeping hampers the accuracy of information and the reliability of predictions. Specifically, the failure to adequately audit patient medical records regarding treatment effectiveness and a particular physicians' skills and judgment limits the reliability and accuracy of claims made in the medical encounter. Electronic medical records (EMRs), although not necessary, would be useful to address this oversight.

The Limits of Research

Randomized clinical trials (RCTs) are the gold standard for producing reliable predictions about treatment success. Several factors contribute to this status: (1) RCTs include large numbers of research subjects that (2) are followed for a specified time with constrained treatment alternatives, and (3) have built-in audits—the data is gathered specifically so that it can be analyzed. These features of RCTs give their conclusions more reliability than the judgments of any individual practitioner. Auditing multiple RCTs produces more reliable conclusions because it includes an even larger patient pool. Hence, meta-analyses of RCTs are more reliable than individual clinical trials. And yet, reliance on RCTs as the foundational unit of medical research limits the reliability, complexity, and speed of the conclusions. These limits arise from the prospective nature and the limited patient pool.

RCTs have a prospective nature because someone must decide on a hypothesis first. Only after a hypothesis has been produced is information gathered. Also, even though the size of the subject (patient) population in an RCT gives it an advantage over an individual physician's judgment, it is still limited by the funds available for the study, the exclusion criteria of the protocol, and the size of the patient population at that time.

Some moves have already been made to increase the size of the subject pool and the value of the information gathered. Take, for example, the PREMIER registry [2]. Starting in January 2003, this registry followed 2,500 patients from 19 states for one year after they suffered heart attacks. After the registry concluded in June 2004, analysis of the data illustrated that the 500 patients who had drug-eluting stents placed after their heart attacks were at greater risk for late stent thrombosis than had been previously thought. It appears that this risk can be attenuated through longer antiplatelet therapy, but this conclusion remains tentative. What makes this conclusion so exciting is that there was no need to design a study to look specifically for late stent thrombosis. Without this registry, who knows how many patients would have suffered significant harm from late stent thrombosis that neither patient nor physician could have reasonably known was a risk. In addition, the information collected by the registry can also be used to evaluate or produce other hypotheses—the information was not gathered solely to test a single hypothesis.

Still, registries are a slower method for producing accurate information and reliable predictions than an audit of electronic medical records (EMRs) would be. As with a

registry, a researcher with a database of EMRs could access existing information, and his or her use of the database would not preclude others from doing so simultaneously. The widespread use of EMRs would provide an important opportunity to audit, and thus hold accountable, the medical establishment. Imagine if the conclusions of medical research were not limited by the number of research subjects but only by the accuracy of our statistical analysis. Rather than taking 1-1/2 years to follow registered patients, the researchers involved in the PREMIER registry could have simply looked back over existing records. Moreover, the use of EMRs would do more than increase the speed with which these conclusions could be reached; it would also increase the complexity of the conclusions that could be drawn. If *all* patient records were stored electronically, information could be gathered to identify a number of conclusions about the risk of late stent thrombosis from DESs (e.g., which other patient factors—age, complicating diseases, etc.—increase or decrease this risk).

The Limits of Skill and Judgment

EMRs will also be a valuable tool in auditing individual physicians' practices (though paper records could be used). Let's begin with the assumption that no physician is perfect and that the competence for particular tasks, measured across groups of physicians, is uneven. Some are better at some things while others are better at other things. The nature of these uneven skills is most easily imagined in areas requiring technical skill, like surgery and the use of medical devices. For example, there are a number of ways a cardiologist can increase (or decrease) the risk of complications from stent placement. If his estimates of stent length or diameter are inaccurate, patients are more likely to suffer complications. Hence, when I'm making a judgment about a therapy involving stent placement by my cardiologist, it would be very helpful for me (and the cardiologist) to know that the *average* rate of restenosis for BMS is 25 percent, but that for this particular cardiologist, the rate is somewhat higher or lower. Patients are in a better position to make good decisions about particular treatments if they have a grip on the physician's specific skill set. Physicians are in a better position to make good decisions about the best way to care for patients and their needs for continuing education if they are aware of their skill set.

Physicians could also be audited regarding their judgment. Just as technical skill is distributed unevenly across individuals, so is excellence in judgment. By evaluating a physician's record, specific areas where his or her judgment is lacking can be identified and addressed. Cognitive and social psychology have reached robust conclusions illustrating that judgment can be easily biased [3-9], but which physicians are subject to which biases at what frequency cannot be known *a priori*; it must be evaluated through the analysis of practice.

A Thin Line

Whether or not they involve the use of EMRs, audits that analyze technical skill and judgment will blur the line between medical practice and medical research. Every clinical encounter produces information that can be used to produce broad

conclusions (e.g., the risk of late stent thrombosis from DES) and narrow descriptions (e.g., *this* physician's skill at diagnosing pneumonia). Should patients be offered the opportunity to opt out of such studies? Should they be included only if they opt in? Does this kind of research require institutional review board (IRB) approval? These are difficult practical questions that need sorting out, but they are not insurmountable. The case for analyzing physicians' technical skill and judgment and producing more robust conclusions is a strong one, and concerns about patients as research subjects are minimal in this case.

There is less reason to be concerned about this type of research than about other types because these analyses avoid the conflict produced by RCTs. RCTs aim to produce generalizable knowledge through strict adherence to a protocol of unknown effectiveness. This necessarily compromises individualized (and so presumably, optimal) patient care. Audits do not require physicians to adhere to strict protocols, but allow them to practice the best medicine they can. After they have cared for their patients, the research begins. Hence, there is no conflict between a particular physician's judgment about what is best for a patient and a research protocol.

There is also some precedent for limiting patient autonomy regarding participation in this research. In a parallel case, demanding patients' participation in medical education is grounded in the need to maintain a pool of trained physicians. Only if patients continue to be involved in medical education will this pool continue. Along these same lines, Rosamond Rhodes has endorsed a legal requirement that all individuals participate in medical research once every 10 years [10]. Importantly, the research she is discussing is research that is or is similar to RCTs. In both of these cases, patients are at risk for harm. When patients are involved in the medical education process, they risk harms through mistakes made because the physicians are less qualified. When patients become research subjects in RCTs, their care can be compromised by rigid protocols. Both sets of risks are absent in the process of accountability through auditing that I am suggesting.

The serious risk introduced by auditing is the potential loss of confidentiality—larger numbers of individuals will see patient records. It is worth noting, however, that the use of records (electronic or otherwise) that require confidentiality is already widespread. Consider, for example, the fact that prescription information is available at all Walgreens pharmacies, regardless of which Walgreens pharmacy originally filled the prescription (disclosure: my spouse works for Walgreens). Given this widespread use of electronic records in RCTs, nonmedical government programs, and businesses in general, it seems that maintaining confidentiality is simply a question of resource allocation.

Finally, some may be concerned that physician-specific information will simply shuttle the poorest and most vulnerable patients to the worst physicians. Two responses allay this worry: (1) this happens already, so this is not a valid criticism of the recommendations here, but of the system on the whole, and (2) even though it may seem comforting to have everyone play the lottery (and not know how good or

bad any particular physician is), the best means to improve health care generally is to improve the care provided by every individual medical practitioner. The most effective way to do this is through audits that identify areas in need of improvement.

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Medicine and Society
Sharing the Pain: A Moral Sketch
James Gordon, MD, FRCPC

In the old days, anyone who wanted to go into medicine had to be prepared for a life of exhaustion. Before laws and regulations prohibited one-in-two call, we were rapidly conditioned to accept the idea that the life of a doctor was not only one of service, but a kind of servitude. One learned to accept being chronically sleep-deprived, called at all hours even when one was not on call, and interrupted in the middle of the night, at dinner, at the theatre, at a child's piano recital. Before the proliferation of cell-phones and Treos and BlackBerries, before drug dealers and computer repair techs routinely carried the tools of the healer, young doctors, singularly, learned to wince at the sound of anything that beeped, to grab instinctively at the belt in response to any brief, high-pitched noise. The sound didn't even have to be repetitive: we recoiled before we had time to think.

Some things have changed now. Responding to a few publicized deaths, a Harvard study, an Institute of Medicine report, and the advent of the "patient safety" movement, legislatures, regulatory agencies, and professional organizations have mandated that on-call hours be curtailed, and appropriately so. Both our lives and those of our patients are improved by the change.

Why, then, does it irk me so when a colleague organizes his practice to eliminate such intrusions completely? And perhaps more to the point, is there anything wrong—anything unethical—about refusing to go to the emergency department?

A literature search does not help with this question. Nothing is written about the subject. An online query of experts is equally unhelpful. When I put the issue to a bioethics listserv, the answers almost invariably addressed ways to induce reluctant physicians to go to the emergency department via reimbursement, regulations, and assertion of the rights of patients.

As a practical matter, doctors demand payment from the hospital to be on call for hospital emergencies, and they get it. Regulatory agencies, insurers, and malpractice carriers require that physicians provide coverage for their patients when they are not personally available, and the doctors who refuse to take ER call still do so for their practices. Medical staff regulations require members to take call until they reach a certain age or position, and members comply as long as they choose to retain their privileges.

These procedural responses miss the point. The issue, for most doctors, is not how much charity care they must give. My untested impression is that all but the most venal physicians in my own community accept that, as a matter of both professional obligation and common decency, they will sometimes be compelled to serve without pay. Nor is it the staff membership obligation, because the people who refuse to go to the emergency department skirt this problem simply by resigning from hospital staff.

In my experience, there are two reasons why doctors stop going to the emergency department. The first has to do with financial survival. Doctors in practice aren't fully reimbursed for the cost of going to the ER. Either they have to leave their office and disrupt their existing schedule—often having to cancel or reschedule other patients, which risks harming, antagonizing, or even "losing" them to other doctors—or they must leave anticipatory gaps in their schedules, which may well never be filled. This is far from trivial when expenses run well over 50 percent. Even hospital reimbursement, when it occurs, rarely makes up the difference. The second reason is intensely personal. Exhausted after years at the beck and call of those who would demand their undivided attention on what often seems to be a whim, physicians burn out or, being on the verge, feel as if they have to drop out before they do.

One might be tempted to dismiss these problems as artifacts of the unconscionable American business of medicine, but the fact is that analogous problems occur in universal, government-funded systems in both Canada and the United Kingdom. Such concerns simply cannot be dismissed without thoughtful consideration. And if those concerns are usually serious and often legitimate, why do those of us who persevere in slogging to the hospital feel so hard done by? Is it we who are the fools? And even if we are not, why should we expect others to behave like us?

The usual sort of bioethical analysis seems at first to fail: Nonmaleficence? Patients aren't hurt as long as they get the coverage and care they need, and who says doctors don't have an obligation not to harm themselves and their own families, anyway? Beneficence? Patients do get care, even if it's not from the doctor they might have preferred. Autonomy? Appropriately informed patients in an otherwise well-served community are free to go elsewhere if they don't like their particular doctor's arrangement. Justice? No problem, as long as a specific group of patients isn't singled out. So if there's no harm done to patients and no obligation abnegated, what's wrong with refusing to take ER call?

The problem with this kind of analysis is that it focuses exclusively on the patient-physician relationship, when—almost perversely, from a medical ethics standpoint—the real issue has to do with what it means to be a physician, not only in society at large, but in a community with other physicians. In the first year of residency, the fledgling doctor learns never to leave work for anyone else at the end of the day. Regardless whether you had been up all night, you did not leave loose ends for your colleagues. Two consequences ensued. First, your interdependence as physicians

became obvious and central to the organization of your life, in and out of work. Second, you became more efficient, because efficiency was necessary for survival in that environment. The upside was that you and your patients got to know each other well. The downside was that you fell asleep every time you sat down; you made not infrequent, usually harmless mistakes; and every bit of your life outside the hospital suffered immeasurably until you figured out how to create some sort of so-called "balance"—which some of us never did.

In the end, most of us embraced the pain, which made us a fraternity (now gender-blind, thankfully), of which we intended to remain members for life. For the privilege and rewards of being a physician—for the social status, the financial recompense, the extraordinary opportunity to engage others intimately for the purpose of helping them, to mention only a few—we agreed tacitly that we would equitably share the burdens that fell upon us, like it or not.

From this perspective, we can understand physicians not only as objects of moral scrutiny, but as objects of moral regard. Standards and principles like nonmaleficence, beneficence, and justice (and virtue and care and others) really do apply to the problem of physicians' refusal to go to the ER—but not with respect to their impact on the physician-patient relationship. Rather, the relevant matter is the physician-physician relationship, where, for the sake of survival, the refusenik breaks the cardinal rule of reciprocity learned in the first week of internship: you don't dump work on a colleague. Under the rubric of autonomy—false autonomy at that, for who among us would be where we are if not for the help of our colleagues over the years—the physician who stops doing his or her fair share asserts tacitly that his or her needs are more important than those of colleagues. Sharing call is ultimately not just a matter of being a good "service-provider" (that odious term) in the era of modern medicine. It's a matter of respect for those without whose collaboration we would never have been able to provide much of anything: to ourselves, to our patients, or to those with whom we create our private lives.

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Op-Ed

The Lifestyle Influence: "Do As I Say, Not As I Do"

Katherine O'Brien, MHS

During a recent visit with my primary care physician, I was asked a series of personal health questions, such as how much salt I eat on a daily basis, how often I exercise, and whether or not I take a daily vitamin. These are valuable questions for evaluating a patient's lifestyle. But the physician who asked me about this regimen was overweight, out of breath, and sweating from his walk to the exam room; he asked the questions with no greater interest or concern than I would use in asking a stranger about the weather. I do not doubt that he knew why a multivitamin might be a useful addition to my diet or why I shouldn't be ingesting more than 2,400 mg of sodium per day. But as I sat on the exam table, I was struck by the thought that he didn't seem to apply these guidelines to his own life. And as a result of his appearance, I questioned his credibility. Was this fair? Should physicians be expected to set an example of good health for patients?

The patient-physician interaction can be a powerful vehicle for change. What occurs during a clinical encounter can have a significant impact on patient behavior and outcomes. The patient's goal is best achieved by trusting and following the physician's advice. But what if the medical encounter does not promote this trust?

Data have shown that, despite their busy schedules, physicians have better health practices than the population at large. But balancing clinical, administrative, and research duties with social and family life can leave physicians with little time for taking care of themselves [1-4]. Andrew Weil, MD, founder of the Program in Integrative Medicine at the University of Arizona, considers the less-than-healthy physician lifestyle to be a byproduct of medical training: "Conventional medical education denies you of sleep. It feeds you junk food. It gives you no time to exercise. It teaches you nothing about stress reduction; instead, it demands that you stuff your emotions" [5]. A doctor, he says, should be a model of health. "Showing, rather than just telling how to live a healthy life is one of the most valuable services a doctor can give" [5].

It has been shown in a variety of clinical situations that it is not simply the physician's message that best determines patient compliance, but rather the way in which the information is delivered [6-8]. Moreover, by discussing their own health habits with patients, physicians enhance their ability to motivate patients to adopt those routines [9]. Physicians with health-promoting lifestyles not only have been found to counsel their patients more frequently about disease prevention, but also to

foster a more confident attitude in patients who are seeking health counseling and treatment of illness [1].

Interestingly, patients do not hold all physicians to the same standards. This makes the healthy physician's influence difficult to define and almost unfair to expect. The family practitioner, for example, has a hand in treating most ailments from bee sting to heart attack. Perhaps because of the family practitioner's "whole person" approach, we assume that he or she should be a model for "whole body" health, that is, he should appear fit, eat nutritious foods, and suggest that patients do the same. Often we don't expect the same from, say, podiatrists or urologists. Have you ever thought about your ophthalmologist's appearance and what that says about his diet and exercise habits? Yet this physician, who may have more years of medical training under his belt than a family practitioner and is probably compensated more than a family practitioner, seems to get a "free pass."

Finally, the effect of a physician's fitness or lack thereof can differ from patient to patient. One patient may respond better to a physician who has less-than-perfect health habits to whom he or she can relate and be put-off by one who does everything exactly right, just as some individuals avoid working with a personal trainer in tip-top shape, for fear that they would be discouraged. Conversely, there may be individuals who are motivated by seeing the "final product," and who would benefit from the role model. Regardless of patient learning style, is it not better for physicians to set a consistent, reliable example than to ignore the potential effects of their influence altogether? After all, doesn't the slightest smell of cigarette smoke emanating from a physician's crisp, white lab coat, or a happenstance run-in with your cardiologist at a local burger joint, condone our own less-than-healthful behaviors (at least to some extent)? The more physicians practice good health, the more patients will be able to observe and begin a dialogue with them during office visits and form an intent to emulate those behaviors.

One way to achieve this is by making personal lifestyle more central in the medical school curriculum. Medical students should be given (and should make an effort to use) time to employ health-promoting habits, both in the classroom and in the exam room. Encouraging frequent exercise and maintaining a nutritious diet in medical school and residency, and throughout one's career, can lower stress, improve learning retention, and ultimately improve the long-term health of patients. Physicians should not be expected to be perfect—they are human too, and busier than most—but perhaps it is fair to expect that health-promoting lifestyles become more evident in the clinical encounter, both physically and verbally. Discussions of lifestyle can help improve the patient-physician rapport by facilitating dialogue, and, potentially, opportunities for counseling and referral.

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