**From the Editor**

**Professionalism Begins in Medical School**
Deirdre Coyle Masterton, Margaret Horlick, and Chris Jones

---

**Case and Commentary**

**Offensive Music in the OR, Commentary 1**
Commentary by Rachel Sackrowitz

**Offensive Music in the OR, Commentary 2**
Commentary by Kenneth M. Sutin, MD

**Is There More to Medical School than Grades? Commentary 1**
Commentary by Gregory Lopez

**Is There More to Medical School than Grades? Commentary 2**
Commentary by Melvin G. Rosenfeld, PhD

**See One, Do One, Teach One: Competence versus Confidence in Performing Procedures, Commentary 1**
Commentary by Sanjay Yadla

**See One, Do One, Teach One: Competence versus Confidence in Performing Procedures, Commentary 2**
Commentary by Eileen Rattigan

**Student Role in Discussion of Diagnosis with Patients, Commentary 1**
Commentary by Mary Oliver

**Student Role in Discussion of Diagnosis with Patients, Commentary 2**
Commentary by Mary Ann Hopkins, MD

---

**In the Literature**

**Meaningful Assessment of Professional Competence in Medical School Curriculum**
Jaclyn Halpern, MD
**Health Law**

Limits to Peer Review Privilege  
Amy Young  

564

**State of the Art and Science**

Identifying an Impaired Physician  
Stephen Ross, MD  

568

**Policy Forum**

A Critical Review of Standardized Patient Examinations as Part of the USMLE  
Hillary Johnson  

572

**Medicine & Society**

Ari Laura Kreith  

577

**Personal Narrative**

I Knew Too Much  
Anne Bertkau  

580

**Viewpoint**

Can Professionalism Be Taught?  
David Stern, MD, PhD  

584

Can You Teach Professionalism?...and If You Can, How?  
Jeffrey T. Kullgren, MPH and Jerome Lowenstein, MD  

587

**Upcoming Issues of Virtual Mentor**

January: Physician Activism  
February: Paternalism in Medicine  
March: Patient Safety and Medical Error  
April: Medicine and the Social Contract
FROM THE EDITOR
Professionalism Begins in Medical School
Deirdre Coyle Masterton, Margaret Horlick, and Chris Jones

Every August, at medical schools across the country, fresh, enthusiastic "lay people" pack into orientation meetings eager to start learning how to think and act like doctors. First-year medical students arrive with a basic understanding of the attitudes and behaviors valued by the profession. They recognize the importance of knowledge, honesty, confidentiality, and respect for the patient. What is not as well understood at this earliest level of training is how these lofty ideals apply to the day-to-day life of a medical student.

We are 3 fourth-year medical students at New York University School of Medicine, who, with the help of a faculty mentor, Adina Kalet, MD, MPH, have created and instituted professional development programming for our peers. Our program, generated and executed by medical students, has challenged the age-old notion that students should learn professional values as passive observers of physician role models. In this first student-edited issue of Virtual Mentor we explore the teaching and assessment of medical students' professionalism. In keeping with the spirit of this issue, our case commentaries all lead off with student opinions. We assert that professional development training can and should be included in the medical school curriculum. The challenge is how, by whom, and to what end?

Jaclyn Halpern's selective review of the literature on teaching professionalism highlights some of the approaches employed to teach professional values to and assess the behaviors of medical students. Elements of the different methodologies discussed in this review are explored in the 2 Op-Ed articles. We asked 2 highly respected medical educators to reflect on the question, "Can you teach professionalism to medical students?" Interestingly, both support the central importance of role modeling in teaching students how to act as physicians, and both recognize that, at present, role modeling alone too often fails to produce altruistic, dedicated, interested doctors. However, these 2 opinion pieces diverge over how to strengthen the role-modeling teaching method. Jerome Lowenstein, MD, suggests that physicians must change what is modeled, while David Stern, MD, PhD, recommends that physicians refine their role-modeling methods.

Although professionalism is a prominent topic in deans' offices and at faculty luncheons, its importance in the minds of medical students is less apparent. In this issue, we highlight the voices of medical students who participated in developing the NYU program. We begin with student and faculty discussions of 4 case studies.
intended to depict situations that medical students may actually face in the classroom and on the wards. These cases highlight how the behaviors and decisions students make each day define their professional identities. This fundamental principle, that everyday decisions and actions influence professional growth, is the foundation for the curriculum we created at NYU. We offer student-facilitated workshops in the first and second years that promote discussion and reflection on how professional development is a lifelong process. We offer students a chance to think broadly about challenging situations and to hear each other's reactions, thoughts, and questions. A feedback skills workshop empowers students to effectively speak up and converse with peers and superiors on professionalism-related topics. We encourage VM readers interested in this to contact us by e-mail for more information about our workshops in professionalism.

Hillary Johnson, PhD and medical student, challenges the value of the USMLE Step II Clinical Skills Exam, a newly required licensing exam for the class of 2005. She critiques the exam's ability to ensure professional competence of medical school graduates and defends the role of individual medical schools to accomplish this end. This controversial clinical skills exam aims to evaluate medical students in scenarios with standardized patients (SPs). In a related essay, Ari Laura Kreith, an experienced SP, offers her unique perspective on teaching professionalism to medical students. She highlights the importance of providing a safe environment for students to reflect on their patient interactions and to mature in their understanding of the patient-doctor relationship.

Anne Bertkau's story exemplifies the self-awareness and openness to growth essential to becoming a reflective, responsive, effective physician. This level of introspection is an acquired skill for most people. Developing an awareness of our actions, our decisions, and the position we hold as physicians is what professionalism is all about. As proponents of formal professional development curriculum, we hope to introduce skills and structure to support students' reflection, discussion, and growth from the very beginning of their training. Ideally, with this background, students will walk away enriched and empowered from the inevitable challenges to their integrity, compassion, and confidence—challenges that they face each day of their professional lives.

The learning objectives for this issue are:

1. Understand the professional responsibilities of medical students.
2. Identify challenges to professional development in medical school.
3. Understand the national trend toward professionalism, and identify current methods used to assess professionalism in medical school.
4. Learn how to identify an impaired peer and how to intervene.
5. Understand how peer review protection laws impact self-regulation in the medical profession.
Deirdre Coyle Masterton is a fourth-year medical student at NYU and one of the founding members of the Professional Development Committee there. Deirdre graduated from Washington & Lee University with a biology degree in 2000 and looks forward to a career in obstetrics and gynecology.

Margaret Horlick is a fourth-year medical student at NYU School of Medicine and plans to pursue a career in internal medicine. She graduated from Oberlin College with a major in mathematics and a minor in history. Margaret is one of the co-founders of the Professional Development Committee at NYUSOM.

Chris Jones is a fourth-year medical student at NYU School of medicine and a founder of the NYU Professional Development Committee. He plans on pursuing a career in orthopaedic surgery.

The viewpoints expressed on this site are those of the authors and do not necessarily reflect the views and policies of the AMA.

Copyright 2003 American Medical Association. All rights reserved.
CASE AND COMMENTARY
Offensive Music in the OR, Commentary 1
Commentary by Rachel Sackrowitz

Case
As Priya, a third-year medical student, and the urology resident wait for the anesthesiologist to sedate the middle-aged patient scheduled for a prostatectomy that afternoon, the attending surgeon enters the operating room and announces that he has brought music to be played during the procedure. This is not atypical; many surgeons prefer to have some music playing in the room while they operate, and Priya expects to hear the classic rock or jazz that has accompanied other operations that she has seen.

She is startled when she hears police sirens and profanities being shouted from the CD player. As the bass line of a gangster rap song starts, the attending surgeon steps out to scrub. While Priya washes and prepares the patient, she is shocked by the liberal use of profanity and racial slurs in the lyrics of the song. She reads the reactions of other members of the operating team as they go about their work, shaking their heads or rolling their eyes. Priya decides that she is not the only one who finds the choice of music inappropriate and turns down the volume of the CD player. Priya would rather have turned the music off all together but hesitates to do so because this was the selection of the attending surgeon on the case.

When the attending surgeon returns to the room, he asks in a confrontational tone, "Who turned down my music? Does this offend someone? If you are offended, just stand up and say so, and I'll turn it off." He looks around at the anesthesiologist, the resident, the scrub nurse, and Priya, who all stand in silence. Priya finds it hard to believe that he cannot sense the discomfort sitting heavily in the room. She cannot believe that he really thinks this music is appropriate. But no one speaks up. No one asks that the music be changed. Seconds later, the surgeon asks the circulating nurse to restore the volume on the radio as he dresses for the procedure.

Commentary 1
Though the details of this clinical scenario are unique, the fundamental nature of this student's conflict is not. Priya believes that the attending surgeon has created an environment that is profoundly disrespectful to the patient and operating room team but is unsure how best to respond. As the person with the least experience and knowledge, Priya is expected to defer to the clinical expertise of more senior doctors. Because Priya is accustomed to this passive position, she feels uncomfortable questioning the judgment of an attending surgeon. Priya feels
pressure to accept his ethical standards and may even doubt the validity of her own reaction.

Initially, Priya turns down the volume of the gangster rap because it violates her professional values. The profanities and racial slurs are obviously destructive to the environment of mutual respect most conducive to team work and patient care. Members of the operating team, likely a diverse group, may feel demeaned, humiliated, or infuriated by the surgeon's choice of music. Some will interpret the lyrics as reflective of the surgeon's personal views. Priya worries that these emotions will interfere with the concentration and spirit of cooperation essential to a successful surgical procedure. Priya also understands that, by allowing an invasive surgical procedure to be performed on him, this patient has placed great trust in the surgeon and operating room team. The team should acknowledge this trust by maintaining a respectful, dignified environment, even while the patient is unconscious. Finally, Priya objects to the gangster rap on a personal level. She is offended by the lyrics and resents their negative influence on her learning environment.

Despite her sound ethical reasoning, Priya does not admit to turning down the music. Instead, she doubts the appropriateness of criticizing the antagonistic surgeon. If she chooses to assert her own professional standards she will overstep the clearly defined student's role characterized by unconditional deference to more senior professionals. Altruism is tempered by self-interest as fears of humiliation, punishment, and negative repercussions discourage Priya from voicing her disagreement. Though she suspects that similar fears underlie the anesthesiologist's, resident's, and scrub nurse's silence, the possibility remains that others do not find the music equally ethically objectionable. Furthermore Priya wonders if, by publicly confronting the surgeon, she will anger the more senior members of the operating team who deem Priya's reaction inappropriate for a medical student. Clearly, confrontation may not be in her best interest.

As the nurse restores the volume and the surgeon dresses, Priya has a final opportunity to consider possible courses of action. Each option strikes a different balance between respect, patient care, altruism, and self-interest. The path she ultimately chooses will be a reflection of her personal and professional values. A solution that would be tolerable to one person may be intolerable to another, and for any given person subtly different situations might call for radically different courses of action. Confronting the surgeon directly would be tantamount to accepting equal responsibility for the operating room environment. If Priya's personal ambitions require the support of this surgeon or the good opinion of the operating team, the cost of public confrontation may be too high. Priya might consider discussing her concerns with this surgeon or another faculty member privately. Such actions would permit Priya to protect her interests and partially defend her professional values. While this particular patient and team will not benefit, future improvements remain a possibility. Ultimately, Priya may decide to say nothing and follow the lead of the rest of the team.
Though the cost of confrontation is readily appreciated, the long-term price of silence is often overlooked. If moral and ethical integrity are traits highly valued by the medical community, then the development of professional values needs to be an important goal of medical education. Unfortunately the hierarchical structure of medical education, designed to tie responsibility to clinical knowledge, infantilizes its students. Though there is no relationship between moral reasoning and clinical knowledge, students do not feel empowered to confront more senior doctors about unprofessional behavior. Because deeply felt conviction requires a forum for expression, there should not be unconditional deference to medical hierarchy in the realm of professionalism and ethics. However, professional identity and ethical maturity will only become fully integrated when moral responsibility is fully assumed at the beginning of clinical training.

Rachel Sackrowitz is a fourth year medical student at NYU School of Medicine. She received a BA in psychology from Amherst College and plans to begin her training in internal medicine next year.
CASE AND COMMENTARY
Offensive Music in the OR, Commentary 2
Commentary by Kenneth M. Sutin, MD

Case
As Priya, a third-year medical student, and the urology resident wait for the anesthesiologist to sedate the middle-aged patient scheduled for a prostatectomy that afternoon, the attending surgeon enters the operating room and announces that he has brought music to be played during the procedure. This is not atypical; many surgeons prefer to have some music playing in the room while they operate, and Priya expects to hear the classic rock or jazz that has accompanied other operations that she has seen.

She is startled when she hears police sirens and profanities being shouted from the CD player. As the bass line of a gangster rap song starts, the attending surgeon steps out to scrub. While Priya washes and prepares the patient, she is shocked by the liberal use of profanity and racial slurs in the lyrics of the song. She reads the reactions of other members of the operating team as they go about their work, shaking their heads or rolling their eyes. Priya decides that she is not the only one who finds the choice of music inappropriate and turns down the volume of the CD player. Priya would rather have turned the music off all together but hesitates to do so because this was the selection of the attending surgeon on the case.

When the attending surgeon returns to the room, he asks in a confrontational tone, "Who turned down my music? Does this offend someone? If you are offended, just stand up and say so, and I'll turn it off." He looks around at the anesthesiologist, the resident, the scrub nurse, and Priya, who all stand in silence. Priya finds it hard to believe that he cannot sense the discomfort sitting heavily in the room. She cannot believe that he really thinks this music is appropriate. But no one speaks up. No one asks that the music be changed. Seconds later, the surgeon asks the circulating nurse to restore the volume on the radio as he dresses for the procedure.

Commentary 2
For the Truth is that we are kind for the same reason as we are cruel, in order that we may enhance the sense of our own Power.
-Aldous Huxley

I will share my impressions of this scenario from my perspective as an attending anesthesiologist at an academic medical center. In the operating room (OR), it is rare that a medical student would ever turn down a radio (unless specifically asked...
to do so); so the fact that Priya did turn down the radio tells me that she was offended by the music's content. Turning down the radio while the surgeon is out of the room is a passive response. It does not deal with the issue, and a better response would be for the student to ask the surgeon directly to please turn the radio off. Although the urology attending asked if anyone was offended by the music, he should have figured this out from the lowered volume when he returned from the scrub sink. He should have understood this cue to turn off the music. Also, the surgeon is clearly expressing some reservations regarding the music when he asks, "Who turned down my music? Is anyone offended by this?" Failure of the medical student to stand up to the surgeon does not necessarily imply passive approval. The surgeon is in a position of authority, and the student may fear retaliation. The failure of an earlier intervention on the part of the anesthesiologist (or nurse) put Priya in an awkward situation where she felt compelled to intercede. Finally, as a last resort, if the profane music persists, the student has the right to voluntarily excuse herself from the OR. Before leaving, she should explain to the attending why she is leaving and immediately report the incident to the Dean for Medical Student Affairs.

As the advocate for the patient, the surgeon, the nurses, the residents, and the medical students in the operating room, I consider it my personal responsibility and privilege to ensure that the OR environment is conducive to the safe conduct of surgery and anesthesia and to the education of all students. If the radio volume is too loud, it may impair the ability of the anesthesiologist to detect ventilator or monitor alarms that are designed to protect the patient. I always insist that the radio be turned off during critical parts of the anesthesia (eg, induction of general anesthesia). Clearly, it is in everyone's best interest to adjust the volume according to the circumstances. In fact, many hospitals do not permit radios in the OR.

Certainly, if the content of the material being broadcast were of a questionable nature, I would insist that it be changed. If an overbearing surgeon insists on playing offensive music, I would have no other recourse than to turn off the radio, despite any objections. It is my responsibility to ensure that the sanctity of the work environment is preserved. It is too easy for students to subjugate their individual rights to the freedom of expression implicitly demanded by an overbearing music enthusiast. I would not blame the student for not speaking up to the surgeon for fear of retribution. I would blame myself, however, if I did not have the insight to appreciate that situation. Music that contains potentially offensive content should never be played in the private community of the OR. Remember, an awake patient (eg, at the start of surgery or during the entire surgery) may also be offended by the music, and the patient (who may have an altered level of consciousness due to sedatives or opioids) has rights that must be protected. The proper function of the OR requires teamwork and the optimal functioning of all involved in patient care. If a caregiver with a vital role in patient care is distracted by the lyrical content, I must be concerned that his or her performance in the OR may be suboptimal and that there may be adverse consequences.
The atavistic legacy of abusive "indoctrination" to medicine is unacceptable by today's university, hospital, local, state, and federal standards.¹ When I was a resident in training in Philadelphia, I was subjected to abuse on a few occasions. I remember the situations quite clearly, and I recalled thinking that this cycle of abuse must stop, even though it seemed to be a rite of passage. Also, it was made very clear to me that if I said one word, my evaluation for the rotation would reflect my "inappropriate" complaint, rather than my clinical skills and hard work. It was wrong then, and it is wrong today.

Although medical student abuse is wrong, it does occur, albeit much less often than in prior years. According to the Association of American Medical Colleges' 2003 poll of graduating medical students at 125 US medical schools,² the most common form of medical student mistreatment is public humiliation or belittling; this was reported by 59.6 percent of respondents as occurring more than once. In contrast, only 11.6 percent of respondents reported being subjected to racially or ethnically offensive remarks or names directed at them personally on more than 1 occasion. The identified source of mistreatment was most often the clinical faculty (in the hospital) or the house staff. Fear of reprisal was the most common reason why an episode of mistreatment was not reported (47.2 percent). Acts of severe abuse are much less common now than a decade ago.³

So what has changed since the time I was a medical student? You can voice your complaint, expect it to be acted on, and not fear retaliation. Just as excessive resident work hours have been reformed, so has there been a significant change and redefinition of what is considered to be unacceptable behavior. Fortunately, I believe we are pretty far along in the process of reforming the culture of medicine that closed its eyes to abuse of subordinate students and junior colleagues.

References

Kenneth M. Sutin, MD completed his anesthesiology residency and critical care fellowship at NYU. He is a full-time anesthesiologist, specializing in neuroanesthesiology and critical care at Bellevue Hospital in New York City. He is the director of medical student education for anesthesiology and is actively involved in both medical student and resident education.
CASE AND COMMENTARY
Is There More to Medical School than Grades? Commentary 1
Commentary by Gregory Lopez

Case
Throughout college, Joshua got A's in classes by cramming for his exams. Now in his first semester of medical school, he finds this study strategy is still working reasonably well for him. In fact, he has scored close to the class average on all of his exams so far—anatomy, physiology, genetics, and cell biology. He makes it a point to attend every lecture so he can take notes on what he believes to be the "core concepts" the lecturer is trying to convey. He then studies from his notes in marathon, all-night study sessions starting 3 days before the exam. Consequently, his study strategy involves ignoring most of the smaller details since they'd be impossible to cram before the exam. He is a little concerned about skipping these details but figures "it's med school and I need to do whatever is necessary to survive." After all, his grades so far have proven to him that knowing the core concepts is enough to get by.

Despite his avid interest in lectures, Joshua does not like attending small group conferences where 10 to 12 students discuss case studies or basic science vignettes in an interactive, problem-solving format. He thinks the conferences are a waste of time since they don't focus on the "core concepts," and he usually forgets all of the minutiae discussed there by the week of the test anyway. He particularly dislikes the cell bio conferences, which he considers useless and impractical. He regularly complains to other students that "the bio conference is stupid. Why does a medical doctor need to know anything about signaling molecules or G-proteins? This won't ever help me care for my patients."

Joshua knows that the cell bio conference material constitutes only a small part of the final exam. If he skipped the conference, he thinks he could still pass the course without a problem. Still, he shows up for conferences since attendance is taken. He refuses to prepare for the case vignette discussion questions because it requires "a lot of work for little return." In conference, he constantly pretends to search through his notes to avoid eye contact and dodge being called on. The few times he was asked to contribute to the discussion, he joked his way out of having to provide an answer. And when the group discussion heads off on a tangent, he shows his disapproval and lack of interest by placing his head on the table. Other students avoid including him in the discussion since they know he never has anything to contribute and likes to make cynical comments under his breath about their interest in "boring details." Joshua's only pleasure comes from knowing that at the end of
Commentary 1

Higher learning can teach some strange lessons. As an undergraduate, I majored in biology. My college roommate, who is now a painter, majored in anthropology. We chose our majors because we found them to be interesting vehicles for developing our abilities to think about problems. But along the way to graduation, we lost sight of our noble goals. One night, after some heady dinner conversation, our stomachs knotted as we realized that we could have read a library of books on interesting, related topics, but the quantification of our "knowledge" would ultimately be summarized by 1 of 5 letters on a grade sheet outside the professor's office. The primacy of "key concepts" on our final evaluation was reinforced so many times that we became obsessed with them. By senior year, my peers would ask the professors in review sessions, "Will this be on the test?"

College students become experts at culling through large volumes of material, figuring out what is testable and discarding the rest. College students who become medical students are among of the best of them.

Joshua is obviously a very bright and talented student. With minimal effort he obtained A's on his college exams and, because the preclinical years resemble college, he is approaching them in a similar manner. Unfortunately for Joshua, medical training is very different from college coursework. The goal of medical school classes is not solely to develop an ability to think, but to apply that ability to a fund of knowledge and heal patients. Cramming is a horrible way to develop that fund of knowledge. A complete review of the literature on long-term recall is beyond the scope of this piece. But, aside from countless psychiatry and neurology texts and articles, a recent study using computer-timed, web-based teaching modules attempted to validate "the hypothesis that learning takes time" and succeeded. The bottom line: for lifelong learning, cramming is poor practice.

That said, Joshua may find himself in something of a bind. Between anatomy lab, lectures, and assigned reading, perhaps he just doesn't have time to adequately prepare for his conferences. Even Sir William Osler noted at the beginning of the last century, "The student needs more time for quiet study, fewer classes, fewer lectures, and above all, he needs the incubus of examinations lifted from his soul." Sadly, modern medical school has done seemingly the opposite. If we accept the "hypothesis" that learning takes time, just how much can Joshua learn in the preclinical years? The science, techniques, and skills that must be learned by young physicians today have grown tremendously in the past 20 years. Could we even have conceived of a DNA chip 20 years ago?

The Principles of Medical Ethics put forth by the American Medical Association in June 2001 call on the physician to, "continue to study, apply, and advance scientific knowledge." The Prayer of Maimonides pleads, "Let me be contented in
everything except the great science of my profession. Never allow the thought to arise in me that I have attained to sufficient knowledge… For art is great, but the mind of man is ever expanding.4 In the Islamic Code of Medical Ethics the physician swears, "to strive in the pursuit of knowledge and harnessing it for the benefit, but not the harm of mankind."5 For 310 years (the earliest written copies of the Prayer of Maimonides date back to 1793) we can find codified the idea that the practice of medicine is intimately entwined with an evolving body of scientific knowledge. Advances in the basic sciences virtually guarantee that standard-of-care today will not be standard-of-care tomorrow. Joshua's desire to grasp just the "core concepts" will be incompatible with the reality of his practice in the future.

A shift in Joshua's thinking must occur. He does not want to do a "lot of work for little return" because he knows that the test will not quantify his knowledge and skills. And he is right. But the medical classroom is not about preparing for the test, it is about preparing to join a profession. It is learning with application. Small groups, although they look like sections of large college lecture courses, have a greater goal. Virtually all the codes of ethics mentioned above emphasize learning from peers and sharing of knowledge as core values of the medical profession. Small group sessions are the medical students' first chances to develop the communication style and interpersonal skills to do so. Communication with peers will occur not just in the basic sciences; there will be tumor boards, consults, and journal clubs which, if performed with a love of learning, will enrich Joshua's medical practice and enhance the health of his patients. That will be the measure of his success.

Sir William Osler noted, "The hardest conviction to get into the mind of a beginner is that the education upon which he is engaged is not a college course, not a medical course, but a life course, for which the work of a few years under teachers is but a preparation."6 The second word of the title "medical student" lulls many young physicians into their old ways and motivations. Only when Joshua realizes that he must be a physician first and a student always, will he find satisfaction in his studies.

References
Gregory Lopez is a fourth-year medical student at the NYU School of Medicine. He attended Harvard University as an undergraduate and served 4 years in the US Army Medical Service Corps prior to entering medical school.
CASE AND COMMENTARY
Is There More to Medical School than Grades? Commentary 2
Commentary by Melvin G. Rosenfeld, PhD

Case
Throughout college, Joshua got A's in classes by cramming for his exams. Now in his first semester of medical school, he finds this study strategy is still working reasonably well for him. In fact, he has scored close to the class average on all of his exams so far—anatomy, physiology, genetics, and cell biology. He makes it a point to attend every lecture so he can take notes on what he believes to be the "core concepts" the lecturer is trying to convey. He then studies from his notes in marathon, all-night study sessions starting 3 days before the exam. Consequently, his study strategy involves ignoring most of the smaller details since they'd be impossible to cram before the exam. He is a little concerned about skipping these details but figures "it's med school and I need to do whatever is necessary to survive." After all, his grades so far have proven to him that knowing the core concepts is enough to get by.

Despite his avid interest in lectures, Joshua does not like attending small group conferences where 10 to 12 students discuss case studies or basic science vignettes in an interactive, problem-solving format. He thinks the conferences are a waste of time since they don't focus on the "core concepts," and he usually forgets all of the minutiae discussed there by the week of the test anyway. He particularly dislikes the cell bio conferences, which he considers useless and impractical. He regularly complains to other students that "the bio conference is stupid. Why does a medical doctor need to know anything about signaling molecules or G-proteins? This won't ever help me care for my patients."

Joshua knows that the cell bio conference material constitutes only a small part of the final exam. If he skipped the conference, he thinks he could still pass the course without a problem. Still, he shows up for conferences since attendance is taken. He refuses to prepare for the case vignette discussion questions because it requires "a lot of work for little return." In conference, he constantly pretends to search through his notes to avoid eye contact and dodge being called on. The few times he was asked to contribute to the discussion, he joked his way out of having to provide an answer. And when the group discussion heads off on a tangent, he shows his disapproval and lack of interest by placing his head on the table. Other students avoid including him in the discussion since they know he never has anything to contribute and likes to make cynical comments under his breath about their interest in "boring details." Joshua's only pleasure comes from knowing that at the end of
the semester he will have an opportunity to critique the cell bio conference thoroughly so future students won't have to suffer through it like he did.

Commentary 2
As a faculty member and frequent facilitator of small group conferences across the curriculum, reading this case puts me in the moment: I have just finished 17 grueling weeks of lab, lecture, conference, and small groups, in anatomy, and it is finally over. The faculty is really beat. I know students think it's easy for us. But, trust me, we are just as exhausted as they are, and we're older with a longer refractory period. I remember what it was like being a student taking anatomy, biochemistry, etc, and teaching is so much harder.

In any event, it's January and I move from the anatomy lab to my role as a small group leader for the cell biology course. Even though I am a member of the Cell Biology Department, today's case study is "outside" my area of research expertise. In an effort to prepare, I review a large loose-leaf binder filled with review articles, clinical information, and basic science data. After mastering the core material, our faculty meets for a few hours to discuss the case in detail and decide on the key concepts that we want our students to understand. It takes a few days for me to prepare for this small group encounter, but I make sure that I am ready before facing the students.

I look forward to these small group conferences because they allow me to engage very intelligent students in a way that is impossible in a large lecture hall or on a multiple-choice exam. I can actually get my students to "think" about a problem instead of just regurgitating information they have memorized from a textbook or lecture notes. Critical thinking is, after all, what medical school is about, integrating what appears to be disparate information into a testable hypothesis. One of my medical school professors once told me that half of the information I was learning would be wrong in 10 years. While not exactly correct, the point was well taken. We can't teach our students everything they will have to know in order to practice medicine. But what defines us as successful educators is teaching our students how to become lifelong learners. So, with donuts in hand (food never hurts) I eagerly head off to my small group conference room anticipating an intellectually exciting experience.

Every conference starts with a review of a clinical case written to highlight the role of basic science in day-to-day medical practice. I encourage participation from all group members, and when I ask Joshua a question, it is clear that he has not bothered to prepare for this conference. While the rest of the group has worked hard to prepare for our encounter, Joshua blew it off. With his head down to avoid eye contact, he tries to evade being called upon. And when he is questioned, he tries to "escape" with a joke. Coming unprepared to conference upsets me because of all the time and effort I put in to "learn" the material.
Joshua feels he does not need to know anything about signaling molecules or G proteins. He is correct—if he is going to practice 19th century medicine. Now he is in the 21st century, and the molecular biology revolution is about to pass him by. While it would be very easy for me to embarrass Joshua, what would that really accomplish? Joshua has let the "team" down!

The whole concept behind small group exercises is to have the students work together, just as they will in their clinical clerkships. They are part of a team whether in a basic science course or on the wards. Ideally, after the conference, Joshua's classmates will have a chat with him, which will have greater effect and will be taken more seriously than my berating him in front of his peers.

I think it appropriate for his classmates to emphasize how disappointed they are in him, how they had worked hard to prepare for the case presentation, that this is medical school, and here we all work together to help and support each other, whether in an academic exercise, such as this, or to comfort each other when our first patient passes away.

Students like Joshua have some growing up to do. Contrary to what Joshua may think, he is not in the best position to "know" what will or will not be important for him to learn in order to practice medicine. The faculty spends hundreds of hours revamping the curriculum so that it will prepare him both to practice medicine in the 21st century and to become a lifelong learner.

Despite Joshua's behavior, I thoroughly enjoyed my small group experience. I made my students excited about basic science and how relevant it is to the disease process. They made me think; I made them think. What more could a teacher ask of his students?

Melvin G. Rosenfeld, PhD has been a faculty member at NYU School of Medicine for almost 20 years. He teaches gross anatomy, embryology, and cell biology and is director of the histology course for first-year medical students. He has a PhD in cell biology from the State University of New York.

*The people and events in this case are fictional. Resemblance to real events or to names of people, living or dead, is entirely coincidental. The viewpoints expressed on this site are those of the authors and do not necessarily reflect the views and policies of the AMA.*

Copyright 2003 American Medical Association. All rights reserved.
CASE AND COMMENTARY
See One, Do One, Teach One: Competence versus Confidence in Performing Procedures, Commentary 1
Commentary by Sanjay Yadla

Case
Melanie is in her second week of the medicine clerkship, the first clinical rotation of her third year. She has been assigned to the busy internal medicine service at the city hospital and is excited to finally be interacting with and following patients. She is also excited, yet a bit anxious, to be assigned to the public hospital because everyone says that students get to do a lot more there. In particular, she is skeptical of her abilities to do things like draw blood and place catheters since she received little formal instruction on how to perform these procedures.

Melanie's only experience performing clinical procedures came during a 1-day seminar offered by her medical school to all of the rising third-year students entitled "The ABCs of Performing Basic Medical Procedures." During the seminar, Melanie had the opportunity to practice drawing blood from a mannequin arm. Her hand shaking from nervousness, she had some difficulty tapping the fake vein the first few tries but eventually hit it on her fifth attempt. She wondered if the veins of the mannequin were similar to those of a real patient and worried about how the patient would react if she missed.

Putting her fears aside, Melanie made a conscious effort to get involved in patient care. She explicitly asked her supervising resident to include her any time he was performing a procedure. During the first week, she watched him place a central line, insert 2 Foley catheters, and start a number of IVs. In fact, on 2 occasions, her resident walked her through all the steps as he started an IV—from choosing the equipment in the supply closet to tricks on protecting the patient's bed sheets from blood spots. He provided thorough explanations to Melanie's questions concerning how to know if the line is placed correctly and how to avoid potential pitfalls.

One day when the service was particularly busy, the resident asked Melanie to start an IV on a new patient while he went to the ER to get an H&P on a patient with chest pain. This was the first time that Melanie had been asked to perform a procedure on a patient. She became very nervous and was not sure that she remembered all of the steps of the procedure. Fears of creating an air embolism or a huge blood clot flooded her mind. What if she really hurt this patient? Melanie decided that she did not want to disappoint her resident and headed off to the patient's room to try.
Commentary 1

The case addresses several issues that are important in the setting of medical education and the student's role in the provision of medical care. Members of the medical community are ethically obligated to place interest in the patient's welfare above their own interests and those of third parties. Students are no exception to this rule but have an additional obligation to their own education. In this case, the student must balance her concern for the patient's interests (ie, potential harm or pain), with her own interest in learning, and her resident's interest in having her complete the procedure.

It is generally accepted that students will impose some degree of relative risk, albeit low absolute risk, on patients in the name of education. Melanie has just begun her time on the wards and lacks experience with most procedures. Placement of an IV by a medical professional carries minimal risk. Inexperienced students, however, may have a higher relative risk of harming the patient. This additional risk to the patient is usually within acceptable limits to the student, the supervising resident, and the patient; this understanding is the basis for allowing students to perform procedures of gradually increasing risk as they gain more experience.

At university-affiliated hospitals, medical students are expected to participate in certain aspects of patient care. The level of involvement varies with the student's interest and abilities and the willingness of the resident to allow the student to participate. A student must make every effort to learn the required skills. Melanie appears to have made such efforts but is still doubtful of her abilities.

In Melanie's situation, there are several available options: she can decide not to perform the procedure, she can attempt it on her own, or she can request additional support as she attempts it. Should she decide not to perform the procedure and report back to her resident, it may be considered a failure of nerve, but she may have saved the patient from unnecessary harm. Should she resolve to calm herself and attempt the procedure, she will either be successful in placing the line without inflicting harm to the patient or will have to reevaluate the situation after several failed attempts. The likelihood for major injury remains small, but the relationship between Melanie and the patient will have changed. After repeated sticks, Melanie will be nervous, the patient will be nervous, and the likelihood of successful IV placement will diminish. Perhaps the best resolution for Melanie is to ask another student or a nurse to accompany her during the procedure. She may appreciate the added comfort of having someone with her during the procedure, while also gaining confidence from having successfully performed the procedure herself.

Melanie feels she was offered little formal instruction. I would argue that a seminar and in-depth resident teaching on 2 occasions are typically sufficient instruction on performing a basic procedure. It would therefore seem that the student is allowing her own emotions overwhelm her.
Placement of an intravenous catheter is a skill that can trouble both students and residents. Most medical schools offer some type of formal education on the performance of basic procedures before students begin clinical clerkships. Such formal education must include remediation for students who cannot perform skills at an adequate level and for students who remain uncomfortable with those skills. Melanie has received such education but still feels unprepared. She would have benefited from more practice on a mannequin or more formal instruction after the introductory seminar. Students' perceived competency is correlated with frequency of performance of basic procedures. After several successful attempts on the mannequin Melanie may have felt ready to perform the procedure on a patient with confidence.

As a student new to the wards myself, I must admit to approaching each new experience with a great deal of curiosity and some measure of trepidation. If I were to let fear override my interest in learning and acquiring new skills, I would not live up to my responsibilities as a medical student and as someone expected to be proficient in those skills when I complete my studies.

References

Sanjay Yadla is a third-year medical student at NYUSOM. He completed his undergraduate studies at George Washington University in 1999 and did an MPH at Yale University School of Public Health before enrolling in medical school.

The people and events in this case are fictional. Resemblance to real events or to names of people, living or dead, is entirely coincidental. The viewpoints expressed on this site are those of the authors and do not necessarily reflect the views and policies of the AMA.

Copyright 2003 American Medical Association. All rights reserved.
CASE AND COMMENTARY
See One, Do One, Teach One: Competence versus Confidence in Performing Procedures, Commentary 2
Commentary by Eileen Rattigan

Case
Melanie is in her second week of the medicine clerkship, the first clinical rotation of her third year. She has been assigned to the busy internal medicine service at the city hospital and is excited to finally be interacting with and following patients. She is also excited, yet a bit anxious, to be assigned to the public hospital because everyone says that students get to do a lot more there. In particular, she is skeptical of her abilities to do things like draw blood and place catheters since she received little formal instruction on how to perform these procedures.

Melanie's only experience performing clinical procedures came during a 1-day seminar offered by her medical school to all of the rising third-year students entitled "The ABCs of Performing Basic Medical Procedures." During the seminar, Melanie had the opportunity to practice drawing blood from a mannequin arm. Her hand shaking from nervousness, she had some difficulty tapping the fake vein the first few tries but eventually hit it on her fifth attempt. She wondered if the veins of the mannequin were similar to those of a real patient and worried about how the patient would react if she missed.

Putting her fears aside, Melanie made a conscious effort to get involved in patient care. She explicitly asked her supervising resident to include her any time he was performing a procedure. During the first week, she watched him place a central line, insert 2 Foley catheters, and start a number of IVs. In fact, on 2 occasions, her resident walked her through all the steps as he started an IV—from choosing the equipment in the supply closet to tricks on protecting the patient's bed sheets from blood spots. He provided thorough explanations to Melanie's questions concerning how to know if the line is placed correctly and how to avoid potential pitfalls.

One day when the service was particularly busy, the resident asked Melanie to start an IV on a new patient while he went to the ER to get an H&P on a patient with chest pain. This was the first time that Melanie had been asked to perform a procedure on a patient. She became very nervous and was not sure that she remembered all of the steps of the procedure. Fears of creating an air embolism or a huge blood clot flooded her mind. What if she really hurt this patient? Melanie decided that she did not want to disappoint her resident and headed off to the patient's room to try.
Commentary 2
This vignette is familiar to all physicians, young and old. The setting is July, the ritual time of upheaval in the medical world. New medical graduates become interns; interns become residents. Junior residents become senior residents. Second-year medical students are finally liberated from the classroom and ready to jump into action. All are brimming with excitement, and anxiety, as they assume their new roles and responsibilities. All are sent out onto the clinical wards to practice medicine.

The phrase "practicing medicine" holds different meanings to those at different levels of training. For the senior residents, to "practice" means to refine skills, expand the knowledge base and teach those more junior. For the medical students, to "practice medicine" literally means just that—to practice. This brings me to Melanie.

Melanie, the protagonist of this scenario, is an enthusiastic and interested student like all fresh third-year clerks. She is eager to learn and to participate in all aspects of patient care. She also wants to be an asset to the team. And, to the student, this value is inextricably linked to and largely misplaced in his or her ability to draw blood and place IVs. For many a medical student, an initial failure in these minor procedures is inversely related to confidence and, to some extent, self-esteem. I know this was true for me.

When I read about Melanie, I was transported back to my first clerkship, surgery. I recall one of the most terrifying, yet most eye-opening experiences of my early career. On a busy call day, I, too, was asked to place an IV in one of the patients. I had seen IV placement done a number of times; I had my checklist of all the required supplies, and I even had my diagram of the general assembly. I remember trotting off, perhaps a little overconfidently, to place my first IV, alone. The patient was morbidly obese with no clearly identifiable or easily palpable superficial veins. These obstacles were not present in the other patients where I had witnessed IV placement. I did hesitate for a minute or 2. But rather than ask for help, I gave it the "old college try." I failed. I actually failed 3 times. And, even now, when I think back to that day, my palms sweat, and the patient's screaming reverberates in my head. Despite this trauma, I was fortunate that the only injury I incurred was to my pride and that the only injury I inflicted on the patient was an ecchymosis or 2 or 3. I relay this story, not to humiliate myself, but rather to suggest the universality of the dilemma faced by Melanie.

The predicament in our scenario occurs all too frequently. Inexperienced and experienced residents, alike, often ask medical students to complete tasks independently that they may be willing to do, even if they are ill-prepared. Residents often forget that tasks they regard as simple, like IV placement or phlebotomy, are not trivial to a new trainee. So why did Melanie or I attempt to do a procedure independently for the very first time when both of us were faced with questions and fear? I suggest that this action is the product a widely accepted form
of a maladaptive behavior entrenched in medical tradition and training. "See One, Do One, Teach One" is the axiom often quoted in this context. It implies that after minimal exposure and the completion of a procedure once (just once!), you will have mastered the skill and will be capable of teaching the next novice. In the minds of many of the uninitiated, any deviation from this streamlined pattern of training is unacceptable and is equivalent to failure. The more seasoned trainees recognize this as a severely flawed design, but they fail to convey a more realistic view to junior colleagues. Having fallen victim to this notion as a student, I have endorsed a modified scheme to my students during my residency: see many, do many, teach one.

**See Many, Do Many, Teach One**

See Many…Observation is an important first step. It provides a topographical map, but many of the important details required to reach your final destination are missing. At this stage your teacher guides you on the subtle intricacies of the gathering and assembly of the required equipment. At the bedside you closely observe the execution of every maneuver required to complete the task. With intensity and focus you subconsciously mimic each move made by the teacher until you, too, have completed your imagined procedure. Although this step is vital in the learning process, it minimally prepares you for the manual dexterity required to perform a procedure. Technical observations do, however, inspire us and move us to action. Once you are mentally prepared, you graduate to the next step: learn by doing.

Do Many…The successful execution of an invasive procedure of any sort requires patience, skill, and practice. Of course, there will always be a first time for everyone, but the first attempt at any procedure should never be unsupervised. And supervision should be the norm until a trainee is comfortable with the procedure. Many minimize this prerequisite in training. Medical students have the right to demand guidance from experienced seniors, no matter how trivial the assigned task. Supervision is invaluable in multiple ways. First, you are provided with the active, step-by-step instruction necessary to complete a task. This setting also allows you to establish appropriate and safe operating techniques. Direct supervision also provides the appropriate forum for immediate feedback and constructive criticism, both important in learning and refining accrued skills. Finally, this set-up provides a safe haven for both the operator and the patient in the event of a mishap or failure. With each subsequent attempt at a similar procedure, you become more comfortable, proficient, and confident.

Teach One…Once you have mastered a technique, you will naturally progress to supervising the technique for the next neophyte. Effectively teaching a procedure is not solely based in the execution of that task. Those who teach procedures must share their experiences with the students. From shared anecdotes of both procedural successes and disappointments, learners will develop a healthy level of anxiety and respect for techniques and will not be paralyzed by their own fears and failures.
Because of my own early ineptitude, I learned to recognize my limitations and the need to ask for help more freely. Melanie is a universal character who lives beyond the pages of our case. She is representative of all past, present, and future trainees at all levels and on all clinical services in hospitals across the nation. I challenge current students to examine their own behaviors and to modify them accordingly for the safe practice of medicine. Experienced hands are clearly an asset for any physician in training when procedures need to be done, especially when they need to be done emergently. However, competence and confidence in performing these procedures is a slow, stepwise process. And, oftentimes, you will need a helping hand.

Eileen Rattigan received a BA in biochemistry at Wellesley College before earning an MS in Biochemistry and an MD from NYU School of Medicine. She completed her residency training in internal medicine at NYU Medical Center/ Bellevue Hospital Center in 2003 and is currently the chief medical resident responsible for medical student education at NYU. Next July, she will begin a cardiology fellowship at Columbia University College of Physicians and Surgeons.

The people and events in this case are fictional. Resemblance to real events or to names of people, living or dead, is entirely coincidental. The viewpoints expressed on this site are those of the authors and do not necessarily reflect the views and policies of the AMA.

Copyright 2003 American Medical Association. All rights reserved.
Case
Neil is a fourth-year student completing his surgery subinternship at a private teaching hospital. He has been on the service nearly a month and follows 6 patients, visiting and examining them in the mornings and writing their daily progress notes. One of his patients this week is a retired lab technician named Alan, who had a bowel resection for colon cancer 2 years earlier performed by one of the attending surgeons on Neil's surgery team. Alan's lymph nodes had been negative at the time of surgery, and he was told that he was essentially "cured" of the colon cancer. He has felt well since recovering from surgery, except for some shortness of breath over the last month or so. Two days ago, Alan developed a fever and worsening shortness of breath, so he came to the emergency room and was admitted for what looked like pneumonia on a chest x-ray. Alan was pleasant and chatty with Neil during Neil's visits to his hospital room and often expressed his desire to "get over this cold and get back out on the golf course."

One morning, as Neil was writing his notes and looking up lab results, he read that Alan's chest CT showed multiple soft tissue masses in the right and left lung consistent with metastatic colon cancer. Neil's heart sank as he reviewed the CT report, knowing that the prognosis was going to be grim for Alan.

After finishing with his responsibilities on the floor, Neil generally joined the surgeons and residents in the operating room downstairs and discussed any abnormal lab findings or new pathology or radiology reports. As Neil approached the elevator, Alan stepped out of his room and said, "Um, excuse me Doc, I just spoke to a buddy of mine down in radiology, and he said that the reading was in on my chest CT from last night—what's the word on this pneumonia of mine?"

Commentary 1
This scenario, in which a student is asked by a patient to disclose complex diagnostic and prognostic information, is not uncommon in teaching hospitals. In this case, it seems that Neil has gotten to know Alan well, perhaps better than the residents on the team. Students often have ample time to spend getting to know their patients, as clinical clerkship hours are generously allocated to promote extensive patient-student interaction. During sessions with patients discussing their concerns, hearing their stories, and joking about the terrible hospital food, positive rapport readily develops. This relationship is a valuable asset to the medical team.
Medical students are often the first to be aware of changes in the patient's condition or work-up either by prorounding, seeing a patient throughout the day, or checking labs and imaging reports. Conveying this information to the rest of the team can facilitate the implementation of appropriate changes in the patient's treatment plan.

The role of a student as a conduit for information from patient to attending physician is clearly defined and easy to execute. Conversely, the role that a student should play in communicating complex information to patients about the mechanism of a disease or the intricacies of a treatment regimen is less clear. Students may be able to provide answers to simple questions with confidence. On the other hand, how they should respond when asked more difficult questions is unclear. Students' lack of knowledge or experience and their doubts about whether withholding information from a patient violates the standard of honesty expected in patient-physician interactions may cloud the issue.

A brief review of some key principles of ethical decision making provides insight in determining a student's role in discussions about diagnosis and treatment. Consider a central tenet of medical ethics; "a physician must recognize responsibility to patients first and foremost." As part of this responsibility, "physicians must be honest with their patients and empower them to make informed decisions about their treatment." Physicians are compelled to provide accurate and honest information to patients, enabling patients to exercise their rights to autonomy.

Consistent with this central dogma of medical ethics, a student's actions should be guided by the patient's best interest. Reflecting on the scenario involving Neil and Alan, recall that the CT scan was consistent with metastatic colon cancer. Neil correctly recognizes that this is a much worse prognosis than an uncomplicated pneumonia, but he has not yet discussed the results with the rest of his team. Assuming that Neil has not had previous training in colorectal cancer, it is unlikely that he would be able to provide the patient with extensive information about the implications of this diagnosis or be able to discuss details about further diagnostic work-up, therapeutic options, and prognosis. It is the student's responsibility to confirm that the information he provides to his patient is both accurate and complete. For this reason, it is imperative that the case first be discussed with senior members of the team before Neil speaks with the patient, so that complete and correct information can be compiled to share with the patient.

In this clinical case, there are additional factors that support a decision by the student to postpone revealing the imaging results. The psychological implications of the diagnosis are significant. Out of respect and compassion for the patient, one must identify an appropriate environment in which to deliver bad news. This type of conversation should not occur in a hallway, where there is little control over the privacy of the exchange. Also, an ample amount of time should be allotted for the discussion. It would be cruel to report a devastating diagnosis to a patient and then step onto an elevator, leaving him without emotional support. Another important factor for a student to consider is the perspective of the attending physician treating
the patient. A relationship exists between the physician and the patient that must be respected. The attending assumes the ultimate responsibility for the patient's care; students and residents working with the attending physician should be aware of their disclosure of sensitive information to their patients.

Two major points support the decision of a student to withhold information from a patient: lack of knowledge and experience and an inappropriate environment. This does not resolve, however, the troubling issue of one's responsibility to be honest. Honesty implies integrity, truthfulness, and freedom from deceit. Given that Neil should not engage in a discussion about diagnosis with Alan for the reasons previously mentioned, can Neil be honest with Alan in response to a direct question? Does Neil have to lie about his awareness of the test results? By acknowledging that the information requested is available and explaining to the patient the reason for momentarily withholding the information (ie, it must be first discussed with the attending for interpretation), it is possible to uphold the standard of honesty. Concurrently, the student is maintaining the patient's right to receive the news in its entirety in a compassionate and meaningful manner. The student can assume the responsibility for following up with the attending and advocating for a timely discussion between attending, patient, and student, in which the relevant information is disclosed to the patient.

As students and physicians, we must bear in mind our primary responsibility to our patients, specifically that decisions should be based on what serves the patient's best interests. When a patient addresses a question to a student, it is the student's responsibility to consider his or her ability to provide complete information to the patient regarding the patient's disease, treatment, and prognosis. A student should not provide incomplete or dubious information that could lead to confusion or misunderstanding or compromise the patient's care. Instead, the student—Neil—should address the issue with a senior member of the team. After Alan has been properly informed by his physician, Neil can follow up, answering Alan's questions consistent with his (Neil's) own knowledge and benefiting from the opportunity to learn from the exchange between the senior physician and the patient.

References

Mary Oliver completed her undergraduate education as a psychology major and studio art minor at the University of Arizona in Tucson, Arizona. She is currently a fourth-year medical student at New York University School of Medicine and plans to pursue a career in obstetrics and gynecology.
The people and events in this case are fictional. Resemblance to real events or to names of people, living or dead, is entirely coincidental. The viewpoints expressed on this site are those of the authors and do not necessarily reflect the views and policies of the AMA.

Copyright 2003 American Medical Association. All rights reserved.
CASE AND COMMENTARY
Student Role in Discussion of Diagnosis with Patients, Commentary 2
Commentary by Mary Ann Hopkins, MD

Case

Neil is a fourth-year student completing his surgery subinternship at a private teaching hospital. He has been on the service nearly a month and follows 6 patients, visiting and examining them in the mornings and writing their daily progress notes. One of his patients this week is a retired lab technician named Alan, who had a bowel resection for colon cancer 2 years earlier performed by one of the attending surgeons on Neil's surgery team. Alan's lymph nodes had been negative at the time of surgery, and he was told that he was essentially "cured" of the colon cancer. He has felt well since recovering from surgery, except for some shortness of breath over the last month or so. Two days ago, Alan developed a fever and worsening shortness of breath, so he came to the emergency room and was admitted for what looked like pneumonia on a chest x-ray. Alan was pleasant and chatty with Neil during Neil's visits to his hospital room and often expressed his desire to "get over this cold and get back out on the golf course."

One morning, as Neil was writing his notes and looking up lab results, he read that Alan's chest CT showed multiple soft tissue masses in the right and left lung consistent with metastatic colon cancer. Neil's heart sank as he reviewed the CT report, knowing that the prognosis was going to be grim for Alan.

After finishing with his responsibilities on the floor, Neil generally joined the surgeons and residents in the operating room downstairs and discussed any abnormal lab findings or new pathology or radiology reports. As Neil approached the elevator, Alan stepped out of his room and said, "Um, excuse me Doc, I just spoke to a buddy of mine down in radiology, and he said that the reading was in on my chest CT from last night—what's the word on this pneumonia of mine?"

Commentary 2

Medical students often develop special bonds and close relationships with the patients they follow. This can benefit both the educational experience of the students and the care of the patients. In fact, one of the most exciting and important aspects of the clinical years is the development of the communication skills that will make students more effective physicians.¹ ²

That said, there is no role for the student in discussing new findings or results with their patients. This discussion is one that the patient and his or her physician should
have together at the appropriate time and in the appropriate place. The student may have a role to play after this initial discussion has occurred, but under no circumstance should he or she try to intervene prior to that for several reasons.

Neil and Alan seem to have developed a strong relationship. As a medical student, Neil cannot understand all the ramifications of the CT findings and how they might influence treatment plans and prognosis. Is the CT scan 100 percent diagnostic for metastatic cancer, or could it represent a benign disease process? What is the differential diagnosis of these multiple soft tissue nodules? If this is metastatic cancer, what are the treatment options and what is the prognosis? There are many nuances that need to be reviewed, some specific to the disease itself and some specific to the patient. Although it may seem helpful initially to alleviate the patient's anxiety, discussing test results could potentially have damaging repercussions.

Secondly, the hallway is clearly an inappropriate spot to have any conversation about treatment options. The temptation, if a test is negative, is to let the patient know as soon as you see him or her, either by saying "great news on your test" or giving a thumbs-up sign. However, doing this will only bring attention to the reverse situation; that is to say, not giving a sign will imply that the news is bad. It is always a good policy to give news in person and in a safe and comfortable place. Giving news over the telephone, in the hospital lobby, or cafeteria is a bad policy—you won't be able to give proper comfort to a patient in these circumstances if it is needed.

Yet Neil does not want to lie to Alan nor should he. The best way for a student to address this problem is to be honest and state that, as a student, it is not his or her role to discuss any findings with the patient, since he is not the patient's doctor. Neil can say that he will try to find the attending physician and see if he or she has the test results. If it is at all possible, Neil should try to avoid acknowledging that the results are in the computer; the attending physician may be tied up until later that day and unable to get to the patient. This information could cause unnecessary and perhaps unbearable waiting for the patient.

The relationships that students develop with their patients are unique and privileged. A student is often able to sit and talk with a patient for long periods of time, so that he or she can understand the story and chronology of that patient's disease. The patient may look on the student as a friend and ally in an often frightening time and place. The student may also communicate some of the patient's questions and anxieties to the attending physician. The student can and should explain some complicated principles about anatomy or basic medical principles (although, again, a student should not discuss treatment options and prognosis with a patient). The third and fourth years of medical school provide medical students with rich and wonderful experiences. Through this process, they learn valuable communication skills that will make them well-rounded physicians.
In summary, medical students should never discuss findings or results with a patient. This must be left to the patient's doctor. This is not to say that the student should never discuss medical issues with a patient; there are appropriate issues to explain to the patient, and a good and healthy relationship should develop between them. In fact, feeling the anxiety that the patient is experiencing will help the student understand patients' feelings better when he or she becomes a doctor.

References

Mary Ann Hopkins, MD is an attending surgeon at New York University Medical Center. She is also the director of the surgery clerkship. Her major educational interests include the use of multimedia to educate future physicians, how students acquire the ability to reason through a problem, and how to teach students to become compassionate caring physicians. She has also worked with Doctors Without Borders.
IN THE LITERATURE
Meaningful Assessment of Professional Competence in Medical School Curriculum
Jaclyn Halpern, MD

Medical student professionalism has always been valued, but recently this topic has emerged as a separate and central theme in medical education. It has been increasingly discussed by academic organizations and in the literature. In their article, "Defining and Assessing Professional Competence," physician medical educators Robert M. Epstein and Edward M. Hundert propose that "professional competence is the habitual and judicious use of communication, knowledge, technical skills, clinical reasoning, emotions, values, and reflection in daily practice for the benefit of the individual and community being served." While descriptions and definitions of professional competence are generally agreed upon, the meaningful evaluation and assessment of professionalism continues to be a challenge. This review highlights some of the literature that discusses the methods and effectiveness of such an assessment.

A discussion of evaluation and assessment necessarily begins with teaching. No single method of teaching professional behaviors to doctors-in-training is universally accepted by the medical community. Traditionally, educators relied on role modeling, concluding that professional behaviors will be learned from attending physicians, residents, and fellow students in the clinical setting. In "Teaching Approaches That Reflect Professionalism," Charles Hatem supports this modeling approach and describes 2 complementary teaching methods that he and his colleagues developed and implemented at Mt Auburn Hospital. The 2 initiatives focus on the idea that models of professional values and mentoring displayed in the clinical environment will be absorbed by student and resident observers and incorporated into their own patient care. He argues that "modeling…is the most effective teaching strategy to achieve the curricular goal of enhancing professionalism in training and practice," and therefore the benefit of teaching at the bedside is its ability to promote a "template for professional conduct."

Another school of thought argues that professional development cannot depend on role modeling alone. It must incorporate other modes of teaching that allow individuals to explicitly discuss what is modeled, to actively determine what is positive and negative about what is modeled, and to collaboratively reason about what a better decision or behavior would be. Shipra Ginsburg et al, from Mt Sinai Hospital in Toronto, have reviewed the literature of medical professionalism during...
the past 20 years and argue that educators may avoid evaluation of students' personality by focusing teaching methods on explicit behaviors rather than "a set of stable traits" (eg, integrity, honesty, respect) that describe professionalism. They stress the importance of not only concentrating on behaviors but also being aware of the context in which the behaviors are exhibited. Equally important is discussing the student's process of resolving a conflict so that a behavior is not judged in isolation. "If we do not include conflict, context, and the process of resolution in our evaluation methods, we might not be able to conduct the most reliable, valid, and appropriate evaluation of these behaviors." These authors also endorse the increasingly accepted concept that evaluation by several members of the health care team including faculty, nurses, students, and residents contributes to students' education since all "see different aspects of professionalism in students." Finally, they emphasize self-assessment as an integral part of professional development. This approach provides the opportunity to use evaluation for the purposes of assessment as well as teaching.

By assessing professionalism, schools may identify unprofessional behavior, offer remediation, and protect society from those who do not alter their behaviors by denying them graduation. Epstein and Hundert state, "the outcomes of assessment should foster learning, inspire confidence in the learner, enhance the learner's ability to self-monitor, and drive institutional self-assessment and curricular change." In a thought piece published in *Medical Education*, Amanda Howe recognizes that, "as with all core components, assessment of the attributes gained must be valid and high profile, both to ensure competency and to motivate learning."

Currently, medical educators struggle with the practical aspects of developing meaningful methods to assess students' professionalism. The proposed means of assessment come in many forms, including subjective supervisor evaluations, multiple-choice exams, written work, and standardized patients. Unfortunately, each of these, in isolation, can overlook and insufficiently evaluate professional competence. Epstein and Hundert propose a multi-dimensional approach to assessing professionalism that would be more comprehensive and ultimately improve the quality of medical practice and education.

As part of a study at The Uniformed Services University of the Health Sciences, Hemmer et al describe a top-down method of assessment that relies heavily on evaluation by clinical instructors and was successful in recognizing professional deficiencies in students. They used 3 evaluation methods to assess student professionalism on the wards and in clinics during their internal medicine clerkship. One method was a checklist composed of a 5-point rating scale for 15 different performance categories. Instructors were also given space for evaluation in the form for written comments. Thirdly, all instructors including interns, residents, attending physicians, and preceptors, participated in formal evaluation discussion sessions. After these sessions, students met privately with an attending physician mentor and received specific feedback based on these evaluations. Hemmer et al found that
"instructors were twice as likely to identify students with deficiencies in professionalism during the ward rotations as during the ambulatory care rotation."\textsuperscript{10} One of the proposed explanations for this was an inability to develop close student-physician relationships in the stressful environment of inpatient services.\textsuperscript{11} Interestingly, students in the ambulatory setting worked exclusively with attending physicians, while on the wards they worked closely with house staff also, and the authors note, "it is entirely possible that students behave differently when they spend the majority of their time with attending physicians."\textsuperscript{10} This study showed that longitudinal evaluation with feedback and discussion not only reveals deficiencies in student professional behavior but has the "additional advantage in allowing feedback, intervention, and continued observation," each of which is important for progressive professional development.\textsuperscript{12}

Yedidia et al used a 10-station Objective Structured Clinical Examination (OSCE) with standardized patients (SPs) to quantify improvement or deterioration in communication skills after a group of students participated in formal teaching sessions that focused on these skills.\textsuperscript{13} The SPs detected significant enhancement and refinement of communication skills in students exposed to the teaching interventions when compared with a control cohort. While in this paper the OSCE served as a tool for evaluating a given program in communication skills training, the authors suggest that the OSCE may be a reliable tool for broad assessment of medical students' communication skills.

Perhaps the most important element of developing and implementing a curriculum to promote professional development is the conceptual framework underlying the program. Howe offers such a framework based on several tenets. She states that "professional development curricula are likely to be successful only if based on different tutoring styles and learning methods from more factually oriented teaching."\textsuperscript{14} She recognizes the importance and utility of self-reflection in this type of exercise, explaining that "students will need support in understanding the rationale for exploration of personal ideas and experiences, which might otherwise appear intrusive."\textsuperscript{14} Howe, like the Ginsburg group, recognizes the importance of "using the students' lived experiences as a basis for learning."\textsuperscript{14} Real academic or clinical experiences promote the application of professional values and underscore their immediate relevance.

The value that medical educators put on the professional competence of medical school graduates is not unwarranted and continues to be in the forefront of developing curricula. The best approach to teaching and evaluating professionalism, however, remains controversial and unresolved. Although few methods have been scientifically proven, it seems that a successful curriculum must be multi-dimensional and encompass evaluation, by faculty, other members of the health care team, peers, and the student. It should allow opportunity for self-reflection, feedback, guidance, and remediation, inasmuch as these are key elements in generating well-prepared, thoughtful, and self-regulating physicians.
References

3. Hatem, 709.
5. Ginsburg et al, S6
6. Ginsburg et al, S9
7. Epstein and Hundert, 231.

Jaclyn Halpern, MD is a third-year medical student at NYU School of Medicine. She earned a BA from the University of Pennsylvania where she majored in biological basis of behavior. Subsequently, she worked for 2 years on curriculum development and educational programming at NYUSOM, where she developed an interest in promoting professional development training during medical school.

*The viewpoints expressed on this site are those of the authors and do not necessarily reflect the views and policies of the AMA.*

Copyright 2003 American Medical Association. All rights reserved.
Dr. Mikalla, an international medical graduate, was admitted to a surgery residency program at a large urban medical center. After completing the program, Dr. Mikalla was offered staff privileges at the hospital and stayed on performing general surgery. He never felt entirely comfortable at the hospital and even after several years did not perceive that he shared the esteem of either his colleagues in surgery or his division chief.

In performing a laparoscopic procedure, Dr. Mikalla inadvertently punctured the iliac artery of the patient, causing loss of blood and a life-threatening emergency. He repaired the puncture, and the patient recovered. The incident was discussed at a subsequent M & M at which Dr. Mikalla explained the occurrence and its resolution.

About 5 months later, Dr. Mikalla received notice that the hospital's peer review committee had suspended his staff membership and clinical privileges pending further investigation of the incident. After a full hearing, the hospital's medical board voted to terminate Dr. Mikalla's medical staff privileges. Dr. Mikalla saw this as out-and-out discrimination on the basis of his race and ethnicity—a violation of his civil rights. Dr. Mikalla brought a suit for discrimination against the hospital, alleging that his peers would not have suspended the surgery privileges of an American-born surgeon under the same circumstances. To demonstrate his point, Dr. Mikalla solicited the records of the hospital's peer review committee meetings for the last 20 years, up to and including his own. The hospital denied his request for the records by pointing to state legislation that protects the privacy of peer review committee records. The trial court disagreed with the hospital's reading of the state's peer review privilege statute and ordered the hospital to turn over its peer review committee documents. The hospital lost its appeal and eventually produced more than 40,000 peer review documents for use as evidence in a jury trial to determine whether Dr. Mikalla's termination was discriminatory in relation to American-born surgeons.

Legal Analysis
The above facts are adapted from Virmani v Novant Health, Inc in which the US Court of Appeals for the Fourth Circuit considered the extent of peer review confidentiality privileges. While medical peer review practices date back at least 50 years, legal issues surrounding privacy protections for the peer review process
did not materialize until the late 1980s. In 1986, Congress responded to national concerns regarding physician competence by passing the Health Care Quality Improvement Act (HCQIA) to establish a central data collection service, known as the National Practitioner Data Bank, to monitor the credentialing of physicians by hospitals and states. Prior to the HCQIA, each state's Board of Medicine acted as the repository of information concerning physicians, but it was well known that states were not successful at disseminating such information; physicians whose privileges or licenses were revoked in one state often went to another state to practice. The National Practitioner Data Bank accomplished Congress's central purpose of putting teeth into the peer review process but incidentally caused physician reluctance to serve on peer review committees. Congress addressed the issue by providing immunity from liability under certain federal laws (such as antitrust) for physicians who serve on peer review committees. Congress did not, however, recognize the absolute confidentiality of peer review records in passing the HCQIA. In other words, physicians who serve on peer review committees may not be personally sued for their testimony under federal law, but there are no federal privacy protections for their peer review records.

Statements made by reviewers in peer review documents could strengthen discrimination cases brought against the review board by the physician under review. Evidence in peer review documents that reflected poorly on the physician being reviewed might also be used by patients in cases against that physician or by HMOs and other health care providers in suits against the physician under review. The possibility that physicians who serve on peer review committees may be exposing themselves to future claims and actions made some physicians reluctant to participate in peer review. To overcome physician disincentives to serve on peer review committees, states enacted legislation to protect the absolute confidentiality of the peer review process.

Currently, 50 states and the District of Columbia have enacted peer review privilege statutes. While each state's statute varies in scope and description, all offer immunity to those who participate in peer review. State courts consistently apply their state privilege statutes to protect the integrity and confidentiality of the peer review process, yet federal court enforcement remains inconsistent.

State statutes that protect the confidentiality of the peer review process serve to assure physicians that records and statements made during peer review committee meetings cannot be used as evidence against them during litigation. For example, physician negligence is a matter of state law, and, thus, malpractice suits brought by injured patients against physicians are heard in state courts. A state's peer review privilege statute binds the state court in such actions; peer review records remain confidential in malpractice suits and cannot be used as evidence either for or against a defendant physician.

Federal law, however, creates an exception from standard state protections for peer review records when such records are sought in civil rights cases, eg, cases alleging
discrimination based on sex, race, ethnicity, religion, or national origin.\textsuperscript{7} In the Virmani case, the court rejected the hospital's argument that its committee's peer review records were privileged—first, the state law privileges do not apply in federal cases; and second, the controlling federal law expressly created an exception to the state's immunity provisions in matters relating to civil rights.

Once the Virmani court rejected the state law privilege, the defending hospital argued for the creation of a parallel federal privilege that would apply in all federal cases. The Virmani court acknowledged that the issue before it was "whether the interest in promoting candor in medical peer review proceedings outweighs the need for probative evidence in a discrimination case."\textsuperscript{8} The hospital maintained that "confidentiality is essential to the effectiveness of medical peer review committees," that without confidentiality physicians would be less apt to serve on such committees, evaluations would be less candid, and in consequence, health care quality would suffer.\textsuperscript{9} After acknowledging the important of the hospital's concerns for confidentiality and health care quality, however, the court sided with Dr. Virmani, reasoning that the documents would not be used for any other purpose than the immediate case and that the national interest in eradicating discrimination outweighed the interest of promoting candor in the medical peer review process.

The hospital decided not to appeal the Fourth Circuit's decision about the peer review protection to the Supreme Court and will soon go to trial where a jury will determine whether the hospital's dismissal of Dr. Virmani was discriminatory.\textsuperscript{10} Thus, to date, peer review documents remain privileged under state laws for medical malpractice purposes. In federal cases alleging discrimination, however, peer review records are not confidential and may have to be turned over to the courts as evidence.

References

2. 42 USC sec 11101 et seq.
3. 42 USC sec 1111(a)(1).
5. New York, for example, provides that individuals serving on peer review committees shall not be liable for damages to any person for any action or recommendations made, provided that the individual acted reasonably and without malice. NY CLS Educ § 6527(2003).
7. 42 USC sec 11111(a)(1).
8. 42 USC sec 11111(a)(1).
Amy Young is a third-year law student at DePaul University College of Law. She also works in the Health Care Practice Group at Vedder, Price, Kaufman & Kammholz, PC.
The misuse of drugs and alcohol by physicians is compounded by their critical role as caregivers. Historically, addicted physicians either went unnoticed or were treated punitively. In 1973, the American Medical Association recommended, in a landmark report entitled "The Sick Physician," that state medical societies establish programs to identify and treat impaired physicians. But considering the degree of responsibility entrusted in doctors, this significant number of impaired physicians is cause for concern. Patterns of use vary but, in general, alcohol is most commonly misused, followed by opioids and cocaine. Anesthesiologists and emergency room doctors are 3 times more likely to abuse substances than the general population of physicians. Both fields entail high-risk situations and performance under pressure. Hence, both tend to attract physicians who are more likely to engage in high-risk behaviors in their personal lives. Some specialists give in to temptation from easy access to addictive pharmaceuticals.

Signs and Symptoms
Substance use disorders (SUDs) commonly affect several domains in the impaired physician's life, especially his or her ability to function at work and at home. Detection of the addicted physician tends to be delayed because job performance is often the last dimension to suffer. The following are potential signs of an increased problem with a substance use disorder (SUD).

Work-related symptoms:

- Late to appointments; increased absences; unknown whereabouts
- Unusual rounding times, either very early or very late
- Increase in patient complaints
- Increased secrecy
- Decrease in quality of care; careless medical decisions
- Incorrect charting or writing of prescriptions
- Decrease in productivity or efficiency
• Increased conflicts with colleagues
• Increased irritability and aggression
• Smell of alcohol; overt intoxication; needle marks
• Erratic job history

Problems at home:

• Withdrawal from family, friends, and community
• Legal trouble (ie, driving while under the influence)
• Increase in accidents
• Increase in medical problems and number of doctor's visits
• Increased aggression, agitation, and overt conflict
• Financial difficulties
• Deterioration of personal hygiene
• Emotional disturbances such as depression, anxiety, and mood instability

**Intervention and the Role of Physician Health Programs**

If a colleague is concerned that a physician has an SUD that is impairing his or her functioning, it is that colleague's ethical duty to act immediately to intervene. The best approach is usually to contact a Physicians Health Program (PHP), rather than the state medical board, and to report the suspected addicted physician. Contacting a PHP can be done anonymously and is usually better than trying to confront the individual directly since most addicted physicians have high levels of denial and are usually not receptive to interventions from colleagues. However difficult it might be to report a colleague, impaired physicians cannot be allowed to continue to put the lives of their patients at risk through negligence, misconduct, or avoidable harm. After initial contact is made, the PHP arranges for a comprehensive assessment with the suspected impaired physician to establish a definitive diagnosis of an SUD or any other significant psychiatric or medical illnesses. If necessary, the PHP can help arrange for an intervention by facilitating the selection of a team including family members, peers, friends, supervisors, or clergy to confront the physician. The goal of an intervention is to break through the addicted physician's denial and arrange for treatment.

All states now have PHPs, which are usually sponsored by state medical societies. They were developed to help identify impaired physicians and then to be intimately involved in evaluation, treatment, and monitoring. They also serve to protect the public from impaired physicians as well as to help the impaired physician achieve sobriety. If an impaired physician voluntarily seeks treatment and monitoring, the PHP can then advocate for the physician before the state medical board. If, however, physicians are initially reported to the state medical board before any involvement with a PHP, they are then required to have a formal disciplinary relationship with the board and are in greater danger of license suspension and revocation.
Treatment
Abstinence is always the final goal if the physician hopes to return to practicing medicine. No other option is suitable in light of the physician's level of responsibility for the lives of his or her patients. Once evaluated, physicians are given the level of care that matches their need—either an inpatient residential setting or an outpatient program. Given the severity of a majority of SUD cases reported, most physicians require the inpatient residential setting. Treatment of an impaired physician might consist of any or all of the following options:

- *Detoxification/medical stabilization:* This is for patients in active withdrawal or who have concurrent medical issues.
- *Inpatient residential setting:* These programs typically specialize in treating impaired physicians. Maximum confidentiality and privacy are the standards.
- *Rehabilitation:* This occurs in an outpatient setting. Ongoing treatment includes group psychotherapy, individual psychotherapy, 12-step programs such as Alcoholics Anonymous (AA) or Narcotics Anonymous (NA), relapse prevention, psychotropic stabilization, and alternative therapies such as yoga, meditation, relaxation training, and exercise.

Follow-Up
Most PHPs monitor addicted physicians for 5 years, which includes the monitoring of bodily fluids (ie, toxicology screens), ongoing treatment, and their performance when they return to practicing medicine. Many programs have demonstrated recovery rates of up to 90 percent, which is likely due to close monitoring and also to highly motivated physicians who have a tremendous amount to lose professionally and personally if they relapse. Although many physicians are grateful for assistance with their SUD, they may feel intense guilt and shame. Others might resist treatment, despite the need, and will feel enraged that their right to practice medicine has been suspended or revoked.

In summary, alcohol and drug use among physicians is a significant problem that can lead to impairments in the ability of physicians to function both at work and at home. Early detection and aggressive treatment are key aspects to dealing with this serious problem. PHPs, available in every state, play a vital role in the advocacy and treatment of impaired physicians.

References


Stephen Ross, MD is clinical assistant professor of psychiatry at NYU School of Medicine, and director, Bellevue Dual Diagnosis Training Unit. He is associate director for addiction fellowship training, Division of Alcoholism and Substance Abuse. His areas of interest include dual diagnosis, personality disorders, impaired physicians, psychiatry residency and Addiction Fellowship addiction training.

The viewpoints expressed on this site are those of the authors and do not necessarily reflect the views and policies of the AMA.

Copyright 2003 American Medical Association. All rights reserved.
Evidence that the poor communication skills of some older physicians contribute to medical malpractice lawsuits has led some groups to advocate for standardized clinical skills testing of all graduating US medical students. A new national exam for medical licensure plans to assess clinical skills using standardized patient exams. This is not an evidence-based intervention, however, because it targets the wrong population, and its efficacy has not been empirically validated. In the 1980s, an independent nonprofit corporation, the National Board of Medical Examiners (NBME), developed a standardized patient exam for certification of international medical graduates (IMGs) who wished to practice medicine in the United States. This was, in part, to prevent nonnative English speakers with poor communication skills from practicing in the United States. The exam became a requirement for IMGs in 1998 and cost $1200.

In recent years, the NBME has driven the call for a national exam assessing the clinical skills of US medical graduates for the purpose of medical licensure. According to the NBME, "the test will protect patient safety. A large body of literature has shown that poor communication skills and interpersonal and general clinical skills are related to a higher incidence of malpractice suits, lower treatment compliance by patients, and decreased patient satisfaction." The NBME and its sponsoring organization, the Federation of State Medical Boards (FSMB), jointly own and administer the standardized examinations that states require for medical licensure, the USMLE. Together, these organizations will begin requiring US medical school graduates to take the USMLE Step II CS (with a clinical skills component like that formerly given to IMGs) at 1 of 5 testing centers for a fee of $950. The test's format is similar to the standardized patient assessments currently being performed at most medical schools. It assesses competent data gathering, interpersonal skills, and patient notes. Passing the USMLE Step II CS will be a necessary step for all medical students in the class of 2005 and beyond to receive medical licensure.

The NBME's citation of the association of poor communication and interpersonal skills with a higher incidence of malpractice suits is accurate in part. Those physicians who are sued most often are frequently sued for perceived lapses in their communication skills or their perceived attitude rather than their proclivity for medical errors. But the NBME's claims that examining the clinical and
communication skills of medical students in their final year will reduce errors and improve physicians' communication skills and patient safety are based on speculation. There is strong evidence that most poor outcomes in medicine are the result of systemic errors rather than an individual's errors.\textsuperscript{6-8} When clinical incompetence is the root of the error, often the physician is impaired or has been practice for more than 10 years and failed to continue his or her clinical training.\textsuperscript{9} Review of the American Medical Association (AMA) MasterFile physician database indicates that not 1 physician had been sanctioned by a medical board for communication skills within the first 5 years of clinical practice.\textsuperscript{10} Finally, while there is data in the literature regarding poor medical student and resident communication skills, there is no outcome data showing this exam will effectively screen these candidates from the physician pool.

In the process of medical licensing policy reform, medical student involvement is minimal to nonexistent. It is rare for state medical licensing boards to entertain a medical student presence. Although medical students are the NBME's largest customer base, they fill only 2 seats on the NBME's 80-member board. The 2 students are appointed by the American Medical Student Association and the Student National Medical Association. The NBME convenes a "reference group" once a year that may include broader representation from medical schools and student organizations. Many past members of this group report, however, that their collective concerns have not been seriously addressed.

The NBME's plan to implement the USMLE Step II CS has undergone massive changes over the past 5 years. For example, a few years ago, the NBME considered administering the exam in at least 45 medical schools rather than at independent testing centers, and there were no known plans to require the exam for medical licensure. According to the medical student liaisons to the NBME, the NBME disclosed in September 2001 that they were cutting back to 5 test sites and charging $1000 per student. In response, the students expressed concerns regarding equitable access to test sites and the financial burdens related to fees and travel. According to a liaison from the AMA student section, the NBME denied that the exam would be included in the USMLE Step II at a special meeting with the NBME in 2002.\textsuperscript{13} The student liaisons complained that the NBME's communication about the exam "has been inadequate."\textsuperscript{14} Frustrated, the AMA's Medical Student Section organized a grassroots campaign in 2002 encouraging medical students to take up these concerns with their state medical licensing boards. This campaign became one of the many driving forces shaping AMA policy regarding this exam.

Curricular enhancements for assessing clinical skills have received widespread support throughout medical education.\textsuperscript{15} However, some prominent organizations have expressed sincere concern regarding the implementation of the USMLE Step II CS and its use for the purpose of medical licensure. The American Association for Medical Colleges (AAMC) in 2002 called for a delay in the implementation of the exam until alternative funding sources could be identified to alleviate the financial burden for students. Last year, the AMA declared that the assessment of
clinical skills is "best performed using a rigorous and consistent examination administered by the medical school" and "should not be used in evaluation for licensure of graduates of LCME- and AOA-accredited medical schools."16

The AMA's concerns are 2-fold: (1) the USMLE Step II CS may not allow remediation before residency for medical students who fail the test, and (2) the USMLE Step II CS should not be used for medical licensure because it does not accomplish its stated goal—adequately protecting the public from harm. The NBME has failed to provide evidence that their exam will improve clinical skills or patient safety beyond the level of current medical school-based assessments.17, 18 Studies of the similar exam used for IMGs demonstrate that the test effectively assessed only the use of spoken English.19 For the sake of patient safety, the AMA argues that remediation for medical students with clinical skill deficiencies is best accomplished before those students take on additional patient care responsibility. Medical students who fail the exam may not have an opportunity for reexamination before starting residency. There is limited capacity available at the 5 testing centers that will service both US graduates and IMGs. Students who must repeat the exam may leave residency positions unfilled or take time away traveling to test centers, creating deficiencies in training and patient care.

While the NBME and FSMB leadership have heard the AMA's concerns, they have not taken meaningful measures to address them. The inability of the AMA, AAMC, and medical student groups to influence medical licensing reform has raised fears that professional organizations dealing with medical education have lost their ability to self-regulate as the pace of health care systemic change quickens. At the same time, the medical education system is under pressure to adjust rapidly to these challenges as the public demands greater accountability for health care quality. The primary goal of the formal evaluation of clinical skills throughout medical education is to augment clinical competence. Implementing a national exam for medical licensure intended to assess clinical skills using standardized patients may address the surface issues of communication skills and establishing patient rapport. Only reinforcing professional behaviors and ethical decision-making throughout formal medical education, however, will realistically reduce the number of physicians cited for licensure infractions.

References


13. McCall, Chad. AMA Medical Student Section Liaison, NBME Medical Student Liaison Committee, March, 2002. Personal communication.


15. Liaison Committee on Medical Education. Function & Structure of a Medical School, 1990 accreditation standards. current.


17. Scoles, Peter, NBME Senior Vice President for Assessment. Communication to the AMA Medical Student section meeting. June, 2001.


Hillary Johnson has a PhD in immunology and will be graduating from medical school at Washington University in St Louis in May 2004. She plans to pursue a future career as an academic dermatologist. She is currently the vice-chair the American Medical Association's Medical Student Section.

*The viewpoints expressed on this site are those of the authors and do not necessarily reflect the views and policies of the AMA.*

Copyright 2003 American Medical Association. All rights reserved.
MEDICINE AND SOCIETY
Ari Laura Kreith

I have worked as a simulated patient (SP) and SP trainer for the past 7 years. Like many theater artists, I was drawn to SP work as a clear and direct outgrowth of my goals in the arts. As an actor, director, and writer, one of my primary aims is to facilitate communication and understanding between people.

Many medical students embrace this interaction wholeheartedly. Because I am not a faculty member or physician, students feel comfortable asking questions they might be too uncomfortable to bring up in an academic context. Common areas of students' concern are what it feels like as a patient when a doctor says he doesn't know an answer to a question, whether it is okay to cry with a patient or family, and how much of one's own history or experience it is appropriate to share. I have had students burst into tears during SP encounters, usually out of fear of asking the wrong questions or being too invasive. In such instances, I stop the interview and ask the student to imagine how it feels to be the patient. Sometimes, we reverse roles for a minute or 2, so he or she can truly understand the patient's perspective. Then, I remind the student that, as a physician, it is his right and responsibility to ask or discuss anything that will help treat the patient more effectively.

Occasionally, medical students can be so intent on getting the "right" answer that they miss the point of the SP exercise. It is understandable that students might perceive the interaction this way; we are all the products of an educational system that prizes getting the right answer. However, as an SP, I am not merely a diagnostic puzzle but a teaching tool. If a student discovers that I am an asthmatic who has been smoking on the sly, he or she has defined the problem. If the student then berates me for smoking and feels that he or she has done the right thing, I have failed. My job is to elucidate the difference between the scientific "right" and the human "right" answers, so that eventually the student realizes that they are one and the same. One philosophy-major-turned-physician commented that he had always assumed that he would have an easy time talking to and identifying with patients, but that during his first 2 years of medical school he felt such pressure to prove himself academically that he forgot how to access the parts of himself that had wanted to become a doctor in the first place. He viewed SP encounters as a chance to explore and rediscover the humanitarian part of himself and to be validated for it.
SP encounters can help students confront and deal with specific fears. One student entering his third year of medical school described an encounter in his first-year clinic in which a patient had stormed out. The experience had so shamed him that he was considering a specialty in which he could avoid having much patient contact. To address this, we restaged the encounter with a SP, and he had a chance to explore ways to handle the situation and rebuild his confidence.

My experiences as an SP have changed my own behavior as a patient, as well as my expectations of medical professionals. I have a clearer sense of what is acceptable, and, if I feel bullied or disregarded by a physician, I now feel comfortable asserting my needs as a patient. Indeed, I feel it is almost my responsibility as an educated patient to continue my SP role with any physician I encounter. I am also more aware of the pressures on physicians and am more patient with bureaucratic aspects of health care that are beyond their control. Perhaps most important, I appreciate the limitations of medical science and understand my responsibility in the diagnostic and treatment process. In the past, I expected physicians to be almost oracular, able to divine my illness simply by being in the same room. Now I understand and embrace the fact that our relationship is a partnership.

Several years ago, I received a phone call from a physician friend who wanted advice. Throughout our friendship, he had been rather dismissive of SP work and had often teased me, in a gentle but pointed way, about distracting students from learning about medicine. Two weeks before our conversation, he had been diagnosed with cancer and had turned to his colleagues for advice and treatment. His experiences left him frustrated and despairing. "I thought it would help to know I'm seeking the best opinions," he said, "but it really doesn't. No one seems to listen enough to help me make a choice. How do you make them really talk to you? This is what you teach people to do, isn't it?" I felt that my experiences as an SP had come full circle, as I helped the physician learn to be an effective patient. It dismayed us both to realize that his friends and colleagues were doing their best to be compassionate and helpful, but they lacked the skills to address his feelings. Their discomfort had a clear cost to him as the patient, but there was another, subtler cost to the treating physicians, who felt inadequate and helpless because they sensed they were failing to meet his needs.

As an SP, I am reminded that medicine and theater derive from a common origin: the shamanic healer. In traditional societies today, shamans still take on character roles and perform rituals in order to heal the sick. Actors and physicians share the goals of bringing comfort and assuaging pain. Physical healing is relatively new to the practice of medicine; physicians today are fortunate to have so many tools at their disposal. But throughout the ages, physicians have always been able to listen and care and dispense comfort. This is what I, as an SP, endeavor to help physicians remember and practice.
Ari Laura Kreith is a New York-based theater director specializing in contemporary drama and new music theater. She earned a BA from Yale University and a MFA from the University of California at Davis. She recruits and trains SPs for the NYU School of Medicine and works as a drama therapist and arts educator.

The viewpoints expressed on this site are those of the authors and do not necessarily reflect the views and policies of the AMA.

Copyright 2003 American Medical Association. All rights reserved.
PERSONAL NARRATIVE
I Knew Too Much
Anne Bertkau

My friend Alex was on the phone. "Sara's in the hospital at NYU. We took her to the ER on Saturday night. They still don't really know what is going on."

"What? What happened?" I asked.

"She started bleeding on Saturday night—bleeding a lot—so she called and we took a cab to the ER."

It was a Wednesday night. I had just seen Sara the Friday before. She had showed me her swollen stomach in the cab between dinner and the bar. She said she had been to her internist, who ran a bunch of tests and was sending her to get a CT Scan on Monday morning. I had no idea what could be causing the swelling. I contented myself with knowing that she was seeing a physician who would take care of her.

Now, all I could think was put your white coat on. I needed to find out her room number. As a second-year student I didn't even know how to go about this. Better to look professional.

When I found her, she and her family had little information, aside from the fact that she had some sort of cancer. Sara told me the whole story: how the resident in the emergency room had had a look of shock and fear on his face when he examined her. How she had been sitting in the hospital for 4 days since then and still nobody would tell her exactly what was happening to her body. She told me that she did not see the doctors very often; and when she did, they just made vague comments and said that they had to wait for the biopsy results. She looked very scared and small.

"What can I do to help?" Sara and her family had questions that I could help answer. I could be more than a friend to Sara. I could be a resourceful second-year medical student. The next morning, I ran around looking up information on various Web sites and reporting back to Sara and her grateful family. "You are going to be such a good doctor," they said each time I returned to their room.

When preliminary biopsy results reported an "undifferentiated" tumor the family asked me, "What does that mean?" This stumped me. What should I say? Should I tell them that lack of differentiation indicates a more aggressive tumor? That it is a "poor prognostic sign"? Before I answered, they asked, "Does it mean that the cells
will eventually differentiate?" Relief. A question I could answer, and I did, knowing I was not adding anything to their understanding. Now I had chosen to tell less than the whole truth.

There were more questions with the final pathology report; Sara had an extremely rare untreatable tumor. It was then that it occurred to me to contact my mentor, recognizing that I needed help. It was early afternoon. I hadn't eaten all day, and as I sat in her office explaining what was happening, while both wolfing down a sandwich and fighting back my tears, I came to understand my role better as a professional in this situation. Through this and subsequent conversations, I was able to grasp the extent of Sara's illness, understand my role in her care, and cope with her eventual death.

At the advice of my mentor, I offered to sit in with Sara while she talked with her oncologist to help her make sure she remembered to ask questions and to help her clarify the answers—an idea both Sara and her family liked. Things went well until the oncologist said that the tumor was "not curable" and Sara and her family nodded as if they understood. But I had no idea what not curable signified. I knew she would never be fully rid of the cancer, but could she hold the cancer at bay indefinitely by taking this medication? I quickly followed the oncologist out of the room. I had more questions. I stopped him as he was walked down the hall and showed him an article that the chief medical resident had helped me find. "Is this what I should read?" I asked. He stopped and paused, looking at me standing in my white coat, eyes wide. "Yes, that is the article to read. And you will find out when you read the article that this is a terminal illness your friend has. She will eventually die. You can do what you want, but I would not tell her or show her this article. She will find out for herself in her own time."

So then I knew. I slowly walked back to Sara's room where her family waited. I remember clearly that her brother stopped me outside of her room, "Do you know what not curable means?" he whispered.

I shook my head. "No," I said, "I think you have to ask the doctor."

Later, when Sara's lip began to tremble and her eyes welled at the thought of her treatment, I told her that everything was going to be okay. Her pink sock was poking out from under the hospital blankets, and I rubbed her foot and said that it would be okay when I knew it would not. That night, I couldn't sleep. I kept hearing the words of the oncologist and seeing Sara's face. I knew I did not have enough knowledge of the disease to have a discussion with Sara about her prognosis. But I did know that she was going to die.

I saw her for the last time when she was discharged from the hospital. At first, I called her every other day to check in. Once, I even worked up the courage to let her know that I could listen to her if she did not want to burden her family with her thoughts and fears. She paused, and there was silence on the line, but after a few
moments I filled in with more offers of help. In that moment I was more concerned with my ability to handle her confessions than I was for her. Our conversations became shorter and shorter—she became more and more tired and weak, and I had trouble making small talk. There was nothing I could do to make her better. There was nothing anybody could do. I sent her things in the mail—a Valentine's Day package, Sex and the City DVDs—because it was easier than talking.

Over the next month Sara was admitted to other hospitals for additional biopsies and a chest tube placement. Each time my mentor helped me understand the significance of these admissions; her disease was progressing rapidly. But I was still stunned when I received the call that Sara had died. She had decided not to be intubated and said goodbye to her mother and brother, only 5 weeks after her first admission.

I was able to sit down with my mentor soon after her funeral. I wanted to explain how scared I was. My parents were going to die one day. This pain was going to happen all over again. I was having recurrent "day-mares" of my friends or my sister discovering a breast lump. Breast cancer is the most common cancer among women, and if Sara could develop a rare tumor, then my friends and family could easily be stricken with something common. I turned to my mentor again to help me deal with these feelings of helplessness. In her presence I was able to come up with a plan that gave me some direction and focus. I needed to make a contribution in a way that mattered.

I am now in my third year and was able to find a basic science-based breast cancer research project, which gives me a sense of hope. I know I am unlikely to find a cure or make a real difference in the short run. But maybe I can chip away at a problem that matters to me, in honor of Sara and what she taught me about my role as a professional and a friend.

It took me much longer to ask my mentor the harder questions. I wanted to know if I had acted professionally—if I had been compassionate and altruistic and honest enough. Was I a professional in every sense of the word? And most importantly, did I do right by my friend? I had my doubts. She heard me out, urged me to be proud of my own professional development, and encouraged me to have compassion for and understanding of my own limits. This professional development, including a new consciousness of my limits as a health provider was a gift from Sara, given to me when she allowed me the privilege of trying to help her with her illness.

Anne Bertkau graduated from Amherst College in 1999. She worked as an analyst at McKinsey and Co for 2 years before starting medical school at NYU. Currently a third-year medical student, Anne is considering a career in an oncology-related field.
The viewpoints expressed on this site are those of the authors and do not necessarily reflect the views and policies of the AMA.

Copyright 2003 American Medical Association. All rights reserved.
VIEWPOINT
Can Professionalism Be Taught?
David Stern, MD, PhD

My pager went off. It was 1:30 AM. My next admission as night float resident was a renal transplant patient with a bump in her creatinine, hyperkalemia, and hypoglycemia. After a detailed interview about her current and recent medications, I learned that she had discontinued an oral hypoglycemic about 3 days ago, and the combination of a slow half-life and renal failure was extending its effect. The attending physician I was assigned to that month was the associate chief of medicine and happened to be her primary care nephrologist, so I called him with the case. We talked for a few minutes, agreed on a plan, and I went back to work. This case would not have been particularly memorable, were it not for the surprise I got at 2:30 AM. My attending arrived. He had driven in from his suburban home to see one of his primary care patients, even though she was medically stable.

It was from this and many other experiences over the years that I learned professional values—a process that continues long after my medical school and residency years have passed. And while I firmly believe that professionalism can be learned, I'm often asked about whether or not it can be taught. Teaching and learning are 2 entirely different processes. The brightest teacher can teach a course using the best pedagogical skill, and students can still fail to learn. We don't think too much about this in the world of teaching medical knowledge and skills, but when teaching professionalism, it becomes critical.

When asked, "How did you learn to act like a doctor?" most physicians will not think back to some lecture they had on professional values. Instead, they talk, as I did above, about role models and mentors—of residents and faculty and peers and patients who taught them something about what it means to be a physician. The problem, of course, is that those individuals who are seen as mentors may not realize they are mentoring, and those not seen as mentors may believe that they are always teaching professional values. Teaching and learning are very different propositions.

An example: with my usual entourage of residents and medical students on rounds, we dutifully file into the patients room, I interview the patient, then wash my hands before the examination. What do students learn from my example of washing my hands? Is he afraid of catching some disease? Is he worried about the infection control nurse who monitors our team on random occasions? Is he worried about bringing those hospital germs home to his family? Or, does he wash his hands
because it is a sign of respect for the patient? As a teacher, if my only action is role modeling, without explanation, I have no idea which of these lessons I have taught.

Also important to note is that these "role-modeling" events don't happen at specified times in the curriculum. There is good evidence that professional values are taught primarily late at night, during on-call periods—in the interstices of the curriculum: in the hallways, elevators, cafeterias, and conference rooms of the hospital. These are the places where professional values (both positive and negative) are forcefully taught—and learned by medical students.  

The hidden curriculum was first identified in the late 1960s by Philip Jackson observing teachers in elementary school classrooms. He found that the "hidden curriculum can also be represented as the three R's, but not the familiar ones of reading, 'riting, and 'rithmetic. It is, instead, the rules, regulations, and routines, of things teachers and students must learn if they are to make their way with minimum pain in the social institution called the school." Medical students learn professional behaviors by observing and imitating peers, residents, and faculty in the hallways, the cafeteria, and the elevator. Not just during lectures, but late at night, on-call in the hospital. The values of the profession may be idealized in lectures, but they are demonstrated and reinforced in the real-life setting of the hospital.

At 2:30 AM, when I was a night float resident, I learned what it meant to be a primary care physician. That lesson has directly affected how I have cared for hundreds of patients over the years. Was this something that my attending had consciously planned to teach? What would I have learned had he not made his middle-of-the-night trek?

Imagine yourself as a faculty member for a moment, actively trying to teach in the hidden curriculum. Of course, then it wouldn't be so hidden. But that, I believe, is the key to teaching professionalism: attending physicians must be consciously aware of the teaching that they do in the hidden curriculum. They must do this in such a way that they actively engage students and thus increase the concordance of teaching and learning. Role modeling alone is insufficient—since, as with my hand washing, there is no way to know what students are actually learning. Imagine what might happen if I walked out of the patient's room, and then asked my students why I washed my hands. The ensuing discussion might bring up a number of rationales, and I could guide the discussion in such a way as to ensure that my intended role modeling was pulled from the hidden to the explicit curriculum. While attending physicians routinely talk about the differential diagnosis of dyspnea, or the anatomy of the brachial plexus, we rarely open the discussion to why we took a patient's pulse when the nurse just did it 10 minutes ago (to establish rapport and start the examination in a nonthreatening way), or why we wear white coats (as a reflection of respect and a physical representation of our professional code).

Professionalism can, indeed, be taught. It has been for centuries. But not in the classroom, and not by role modeling alone. Professionalism can be taught in the
hidden curriculum by encouraging and allowing faculty, residents, and medical students to have conversations about real-life events that challenge ideas of what it means to be a doctor. This need not be a lecture on responsibility to patients as a fundamental principle of professionalism; rather, just one faculty member demonstrating his professional commitment to patients, or one group of students and residents talking about behaviors of an attending or colleague they think demonstrated a lapse in professional behavior. The negative role models may be even more potent than the positive ones. It is as much a challenge for students to recognize these negative role models and learn from their mistakes as it is to find positive role models and emulate their behaviors. The greatest challenge for students today is to make the transition from passive to active learners—to recognize events that reflect professional behavior, to talk with others about them, and to then become their own teachers of professionalism.

References


David Stern, MD, PhD is an associate professor of internal medicine and medical education at the University of Michigan in the Division of General Medicine, while working in the VA Ann Arbor Healthcare System. Dr. Stern earned his bachelor's degree in anthropology from Harvard University and his medical degree from Vanderbilt Medical School. He received his PhD in curriculum and teacher education from Stanford University School of Education. He is currently on sabbatical in New York as a fellow of the Arnold P. Gold Foundation and the China Medical Board.

The viewpoints expressed on this site are those of the authors and do not necessarily reflect the views and policies of the AMA.

Copyright 2003 American Medical Association. All rights reserved.
VIEWPOINT
Can You Teach Professionalism?...and If You Can, How?
Jeffrey T. Kullgren, MPH and Jerome Lowenstein, MD

Before any attempt to answer the question "Can you teach professionalism?" I think professionalism requires some form of definition. It is striking how many papers and essays deal with aspects of this question without any real definition of the term. Professionalism is more easily appreciated than defined. Michael LaCombe, writing on professionalism, said, "I knew a doctor once who was honest, but gentle with his honesty, and was loving, but careful with his love, who was disciplined without being rigid, and right without the stain of arrogance, who was self-questioning without self-doubt, introspective and reflective and in the same moment, decisive, who was strong, hard, adamantly, but all these things laced with tenderness and understanding, a doctor who worshipped his calling without worshipping himself, who was busy beyond belief, but who had time—time to smile, to chat, to touch the shoulder and take the hand, and who had time enough for death as well as life. Now there was a professional."¹ In a more formal way, some terms that have been employed to define professionalism are respect, competence, and empathy. Kenneth Ludmerer listed 3 characteristics of professionalism: "expert knowledge, self-regulation, and a fiduciary responsibility to place the needs of the client ahead of the self-interest of the practitioner."² Though it will not be my main focus, I cannot help but comment on the question of why the issue of teaching professionalism has become such a "hot topic" in recent years. Perhaps it is because today serious barriers exist for the attainment of each of the 3 qualities of professionalism listed by Ludmerer.

The explosion of information and the ability to access the latest data coming from treatment trials and research laboratories, all very positive developments, challenge the age-old image of physicians as possessing expert knowledge. Many of our patients know more about their diseases than do their physicians; surely they know more about their illnesses. More importantly, there has been a steady erosion of the ability of the medical profession to regulate itself. Witness the recently enacted regulations limiting resident work hours;³ there are rumors that some training programs are monitoring the activities of residents during off-duty time. If these regulations, instituted in the name of reducing physician error, are implemented for physicians in training, what is to prevent another regulatory body from deciding that all physicians are susceptible to fatigue? Are we to be chastised if we devote too much time to the care of our patients? Most pernicious has been the intrusion of business strategies and ethics into the practice of medicine, seen so clearly in the acceptance of the concept of direct marketing of medical care, hospitals, medical
treatments, and medications to patients. Is the striving for "cost containment and conservation of vital resources" easily reconciled with Ludmerer's "fiduciary responsibility"? And does the shift from the descriptive term "patients under my care" to "persons in my panel" not reflect a fundamental change in the nature of the relationship between patients and physicians?

Although I am more than a little disturbed by the barriers which have played a role in eroding the sense of professionalism among medical students and physicians, I would still answer the question "Can you teach professionalism?" in the same way that I have answered the question "Can you teach compassion?" The question is not whether we can teach professionalism but rather whether we will teach professionalism or its opposite. By its opposite I mean the careful apportioning of time and resources to insure adequate financial return for investors in managed care entities or physician groups; compliance with policies designed to assure that physicians will not be overworked and to prevent any possibility that care might be subject to some omission which could result in a malpractice award; or the assumption that in giving reassurance the physician might be guilty of giving "false hope."

Clearly, medicine has a responsibility to its students and to its practitioners to teach professionalism. Again, although we may differ in our definitions, most of us, like Michael LaCombe, know professionalism when we see it. So how should we teach professionalism? I think that we have a time-honored tradition in medicine. Whether one looks back to the days when medicine was dominated by unproven theories and untested treatments or examines medical education in today's climate of scientifically based medicine, medical education has always rested on a blending of didactic teaching and mentoring. But this oversimplifies the solution. Ludmerer concluded that 'attitudes are shaped by the totality of students' interactions with faculty, house officers, patients, hospital staff, and one another in laboratories, classrooms, wards and clinics.' He went on to say, "The greatest challenge in improving the teaching of professionalism is to modify the internal culture of the academic health center so that it better reinforces the values that medical educators wish to impart."

One aspect of the internal culture of the academic health center that is in need of repair is communication. Many of us, particularly those with gray or thinning hair, recall when hospitals served a "midnight meal" for residents who worked through the night. Though the fare consisted only of that day's leftovers, the midnight meal provided a fine opportunity to communicate with colleagues about many of the day's "medical leftovers." Today, hospitals do not serve a late night repast, and residents are usually too busy to have a meal with their colleagues. The challenge, today, is to identify and preserve, or recapture, the critical components of relationships in medicine, between colleagues and between physicians and patients, which we need to preserve. In the belief that creating a sanctioned time and place to encourage communication among medical students, residents, and attending physicians might foster and sustain some of the qualities we recognize as
"professional," we established the Humanistic Aspects of Medical Education program at NYU School of Medicine 25 years ago. The meetings bring together students or residents who work closely together but often have no time to share their thoughts. Though the meetings take place at mid-day or early afternoon and the menu usually features cookies, carrots, or pizza, the content is remarkably similar to that which occupied the "midnight meals."

It may not be only the internal culture of the academic medical center that must be addressed. It seems to me that these times call for the academic community to be more forthright in confronting the commercial and governmental barriers that render professionals a threatened species.

References
5. Ludmerer, 882.

Jeffrey T. Kullgren, MPH was a theme issue editor for the January 2004 issue of *Virtual Mentor.*

Jerome Lowenstein, MD has been on the faculty of the NYU School of Medicine for 40 years. He is a professor of medicine and chief of the Edward C. Franklin Firm, 1 of 8 firms which make up the teaching service of the NYU Department of Medicine. Twenty-five years ago he developed the program for Humanistic Aspects of Medical Education, which he directs today and which involves all third-year students during their clerkship in medicine and all medical house staff.