

How Medical Students Can Protect Their Patients



TSM Guides

**Drs. Rajani Katta &
Samir Desai**

How Medical Students Can Protect Their Patients

Why did you become a doctor? There may be a number of reasons, but the most important one is the same across the board: to take care of patients. Everything that you learn, and everything that you practice, throughout four years of medical school, is all in the service of one mission. You are here to make each and every individual patient better.

It is an amazing privilege and responsibility to take care of patients. You can read about a disease all that you want, but to be able to speak to and examine a patient with that disease is an unsurpassed learning experience. It is an incredible responsibility as well. You will be asking patients the most intimate and intrusive types of questions. You will be asking patients to offer their arm for a needle and to disrobe for an exam. In return, you have a responsibility to heal the sick, and protect your patients from harm.

A respected surgeon recently published a startling account of his own commission of a major medical error: wrong-site surgery.¹ Dr. Ring, in the *New England Journal of Medicine*, stated "I realized I had performed the wrong procedure....I hope that none of you ever have to go through what my patient and I went through." The article breaks down the pathogenesis of this major error, and the conclusion is startling as well: small errors in the care of patients can lead to major consequences.

From ancient times onwards, medical practice has posed dangers to patients. In modern times, those dangers are shockingly common. Medical error is thought to be the third leading cause of death in the US.² Those errors include the unbelievable: one report described an average of 27 cases in one year, per New York hospital, of invasive procedures performed on the wrong patient.³ Those errors also include the shockingly common. Nosocomial infections have now become so commonplace that we consider them routine. When a patient develops a hospital-related infection, we document it as a nosocomial infection and treat the infection without questioning why it occurred. However, many of those infections are preventable, and should never have occurred at all.

Protecting patients is critical. Caring for patients is just as important. With all of the amazing advances in modern medicine, it's easy to overlook one basic fact: the best medical care involves caring for the patient, not just the illness. In 1927, Dr. Francis Peabody published his now-famous essay "The Care of the Patient."⁴ He reminds us that our patients are not cases. They are individuals.

SUCCESS ON THE WARDS

When a patient enters a hospital, one of the first things that commonly happens to him is that he loses his personal identity. He is generally referred to, not as Henry Jones, but as "that case of mitral stenosis in the second bed on the left." ...

The disease is treated, but Henry Jones, lying awake nights while he worries about his wife and children, represents a problem that is much more complex than the pathologic physiology of mitral stenosis...

In this chapter, our focus is on the patient. You are the team's expert on your own patients. From protecting your patients to healing them, medical students have great power to improve medical care. You will learn the steps that students can take, even at their level, to protect their patients from physical harm. You will also learn a number of strategies that you, as a student, can utilize to improve patient care and outcomes.

Rule # 13 "First, do no harm." —Hippocrates

Medical error is thought to be the third leading cause of death in the U.S.² Ask any practicing physician. The longer a patient stays in the hospital, the higher the chances of complications. Sometimes these complications are due to mistakes.

A report by the Institute of Medicine, widely described in the mainstream media, found that as many as 98,000 deaths occur yearly because of medical errors.³ Numbers like that are hard to fully comprehend, but other studies have found that medical errors are shockingly common. In response to the Institute of Medicine study, researchers surveyed practicing physicians and members of the public. They found that 35% of physicians and 42% of members of the public reported errors in their own or a family member's care.⁵

Medical care has great potential to harm patients, and the numbers support this fact. Patients have been alerted by the media to this fact. Dr. Richard Klein wrote a book directed to patients, in which the title itself is very striking: "Surviving your doctors: why the medical system is dangerous to your health and how to get through it alive."⁶

Even as a medical student, you can do great harm to your patients. You can directly harm your patient in many ways. You may transmit a nosocomial infection. You may write an illegible order that is misunderstood by the nursing staff. Your patient may then suffer a potentially fatal overdose. You may make a prescribing error, inadvertently substituting one medication for another that sounds similar, such as Toprol for Topamax (an antihypertensive for a migraine medication). You may fail to document your patient's medication allergy, thus bypassing all of the pharmacy's computerized safeguards.

You are the team's expert on your own patients, and therefore you have the ability to prevent and catch medical errors. Prevention begins with a thorough history and physical exam, a comprehensive

PATIENTS

problem list, a complete medication list, and an accurate list of drug allergies. These items alone can prevent many medical errors. Sound too obvious? Researchers at the University of Illinois looked at drug allergy documentation by physicians, nurses, and medical students, and found that 20% of individuals failed to document drug allergies in their admission notes.⁷

Recognize that your interns are inexperienced, overworked, and fatigued, and may not be able to catch all of your mistakes. Although you don't have ultimate responsibility for patient care decisions, you are on the front lines of patient care and therefore play a critical role in the prevention of medical errors.

Rule # 14 You will probably witness a medical error.

A newspaper report described a patient safety course taught by Dr. Sax, professor of surgery at Brown University. He asked a group of second-year students, about to begin clinical clerkships, the question "How many of you are scared to death that you're going to hurt or kill someone?" "Every hand in the room went up."⁸

As increasing attention is focused on medical errors, research is underway on prevention at all levels of training, including that of medical students. According to one study, 76% of medical students had observed a medical error.⁹ However, only about 50% of these students reported the error to the resident or attending physician.

Although you are likely to witness a medical error, you may or may not receive any official training in how to handle this situation. In recent years, a number of organizations have called upon medical schools to increase patient safety training during medical education. In a 2006 survey of internal medicine clerkship directors in the U.S. and Canada, researchers sought to determine the patient safety curricula in medical schools. Only 25% of schools had explicit patient safety curricula.¹⁰ However, some strides are being made in the education of medical students on topics of patient safety.

In his required course at Brown, Dr. Sax highlighted what medicine can learn from the aviation industry's strides in safety: "an emphasis on good communication, careful record-keeping, diligent use of checklists and, especially, an environment in which everyone feels free to speak up about any doubts and report their own errors without fear of retaliation."⁸

We outline in this chapter further measures that students can take to prevent or catch medical errors.

Rule # 15 Medical students have the power to protect patients.

The issue of medical errors is so vast and complex that it may appear insurmountable. However, every individual in health care has the power to protect patients. One inspiring success story is that of Dr. Ellison Pierce, and his contributions to anesthesia safety. In the book *Complications: A Surgeon's Notes on an Imperfect Science*, Dr. Atul Gawande

SUCCESS ON THE WARDS

presents this story. Dr. Pierce was committed to reducing errors in anesthesia, and was able to mobilize the American Society of Anesthesiology, as well as others, to attack the issue. He helped to increase research funding and brought in the expertise of many individuals, including engineers and anesthesia machine designers. In one decade, overall anesthesia death rates dropped to less than a twentieth of what they had been.¹¹

As a student, you may feel that your lack of clinical knowledge, relative inexperience, and lack of confidence would prevent you from identifying and preventing errors. However, because you have relatively fewer patients to follow, you may be able to devote extra time and greater attention to your patients, thus allowing you to pick up on errors that others on the team may miss. In a recent study, four real case histories of how students prevented or could have prevented harm were described.¹² Two are summarized below:

Case scenario # 1

An elderly patient with end stage Alzheimer's disease was admitted for placement of a percutaneous endoscopic gastrostomy tube. The patient's code status was "Do Not Resuscitate" (DNR). Following insertion of the tube, the patient went into cardiac arrest while in the PACU. A code was called. After resuscitation efforts commenced, the third year medical student following the patient arrived on the scene. The student knew that the patient was DNR but wasn't sure what to do, since resuscitation efforts had already started. The student didn't know that such efforts could be stopped. After several minutes had passed, the student decided there was no harm in reminding everyone of the patient's DNR status. After he spoke up, resuscitation efforts were ceased.

Event description	Contributing factors or problems	Role of medical student	Lessons learned
DNR order not followed	No system for alerting DNR orders to team. Student hesitant to communicate knowledge of DNR order	Communicated DNR order to team	Students encouraged to communicate with team members when there are questions about proper procedures
Seiden S, Galvan C, Lamm R. Role of medical students in preventing patient harm and enhancing patient safety. <i>Qual Saf Health Care</i> 2006; 15(4): 272-6.			

Case scenario # 2

During the first clerkship of her third year of medical school, a student was asked to follow a 21-year old male with ulcerative colitis. The patient

PATIENTS

was admitted for total abdominal colectomy. The first three postoperative days were uneventful. However, on day # 4 of the hospitalization, the patient developed vomiting and appeared quite ill. A plain abdominal x-ray showed free air under the diaphragm, raising concern for the possibility of perforation. The student's review of the patient chart revealed that the ordered postoperative famotidine (Pepcid) was not being administered to the patient because the order had never been transcribed to the medication administration record. Subsequent abdominal imaging showed no findings of perforation, and the free air was deemed to be residual from the surgery. Following nasogastric tube drainage and institution of famotidine therapy, the patient improved.

Event description	Contributing factors or problems	Role of medical student	Lessons learned
Drugs ordered but not administered	Drug order system requires transcription from hand written order to computer based medication administration record. No formal practice of confirming that ordered drugs are administered.	Drug administration was not confirmed	Students are in a position to follow the practice of confirming that orders are carried out and medications administered.
Seiden S, Galvan C, Lamm R. Role of medical students in preventing patient harm and enhancing patient safety. <i>Qual Saf Health Care</i> 2006; 15(4): 272-6.			

As these cases indicate, students have the power to prevent or recognize medical errors. In the first scenario, the student initially hesitated to speak up, a common occurrence. As the authors state: "Our experience and that of others shows that students may feel hesitant and delay communicating a known error because of their junior or outsider status and the intimidation they feel from the medical hierarchy." Medical errors may be committed by any member of the health care team, including the attending physician. As a medical professional, it is your duty to speak up if you believe you have information that is critical to safe patient care. When speaking up, avoid confrontational statements or accusatory stances. You can just state your thoughts directly. "I was thinking about Mr. Burton's indwelling catheter and I wondered if..." You can also phrase your comments in the form of a question, or use defusing phrases such as "I may be mistaken but..." or "This might be a crazy question..."

SUCCESS ON THE WARDS

Rule # 16 Use every technique possible to protect your patients.

A young mother, a pillar of the community, died last year following a routine outpatient surgery. She was a teacher, a Girl Scout leader, and a mother of two young children, and she had undergone a routine orthopedic procedure. The night of her procedure, she woke up at home with shortness of breath, and then died of a pulmonary embolism.

As you progress in your training, you will sadly witness outcomes like this. In some cases, these tragedies are preventable.

In 2009, the National Quality Forum published a set of 34 safe practices to reduce the risk of patient errors. Some of these practices are listed on the next page, including ways in which medical students can make an impact.

PATIENTS

Ways in which medical students can enhance patient safety	
What you can do?	Why
Do your part to create a healthcare culture of safety	As a member of the healthcare team, you have the opportunity and obligation to “contribute to the quality and safety of patient care.” ⁹
Use only standardized abbreviations	While medical abbreviations are time savers for busy clinicians, research has demonstrated that certain abbreviations frequently contribute to errors in patient care. In 2004, the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) issued its National Patient Safety Goals. Among the new requirements were recommendations to standardize abbreviations and acronyms and creation of a list of abbreviations not to be used. As you rotate through your school’s affiliated healthcare institutions, obtain their list of acceptable abbreviations, and adhere to these guidelines.
Stay up to date with vaccinations	All healthcare workers are at risk for exposure to influenza, and can be vectors in the transmission of influenza to patients. In one survey of physicians and nurses at a major teaching hospital, the overall influenza vaccination rate was only 73%. ¹³
Wash hands before and after each patient encounter.	Decontaminate hands with either a hygienic hand rub or by washing with a disinfectant soap prior to and after direct contact with the patient or objects immediately around the patient.
Ensure patients that need venous thromboembolism (VTE) prophylaxis receive it.	In one study of nearly 200,000 discharges from over 200 hospitals, the appropriate VTE prophylaxis rate was only 33.9%, highlighting the low rate of prophylaxis in U.S. acute care hospitals. ¹⁴ With every newly admitted patient, assess the need for VTE prophylaxis, and ensure that all eligible patients receive appropriate prophylaxis.
Ensure that written documentation of the patient’s preference for life-sustaining treatments is prominently displayed in his or her chart.	In a recent survey of nursing executive members representing academic health centers, researchers learned of how institutions identified DNR orders: 56% only use paper documentation 16% use electronic health records 25% use color-coded wristband in addition to either paper or electronic documentation. Of note, over 70% reported “situations when confusion around a DNR order led to problems in patient care.” ¹⁵

SUCCESS ON THE WARDS

Evaluate your patient upon admission and regularly thereafter for the risk of developing pressure ulcers. This evaluation should be repeated at regular intervals during care.	The incidence of pressure ulcers in hospitalized patients is approximately 10%, with most ulcers occurring early in the hospitalization period. A commonly used scale to determine pressure ulcer risk is the Braden scale. ¹⁶ Once patients at risk are identified, institute measures to prevent pressure ulcer development. These measures include repositioning the patient at regular intervals, use of pressure reduction devices, and maintaining head of the bed at the lowest degree of elevation possible.
Communicate changes in patient status and new diagnostic information to team in a timely and clearly understandable manner	Ineffective communication can lead to suboptimal patient care and medical errors. In an observational study of nearly 50 surgeries, communication failures were common, occurring in approximately 30% of exchanges. ¹⁷
Collaborate with pharmacist colleagues	Physicians often underutilize pharmacist colleagues. Pharmacists are able to actively participate in the medication-use process, including being available for consultation with prescribers on medication ordering, review of medication orders, preparation of medications, dispensing of medications, and administration and monitoring of medications.
Some information above adapted from The National Quality Forum Safe Practices for Better Healthcare: a consensus report. 2009 update. Report available at www.qualityforum.org .	

Rule # 17 Identify patients who are at risk for the hazards of hospitalization.

The elderly Mr. K was admitted to the hospital with pneumonia. As many elderly individuals do, he often had trouble sleeping, and hospitalization, with its beeping machines and vitals in the middle of the night, only worsened his sleep deprivation. The next day, sleep-deprived, he was shaky on his feet and fell.

Patients are admitted to hospitals to get better. Unfortunately, many patients develop iatrogenic complications that are unrelated to their primary diagnosis. They come in with one problem, and then they develop a new one. These complications, which are sometimes referred to as "haz-ards of hospitalization," include malnutrition, depression, delirium, pres-sure ulcers, urinary incontinence, falls, restraint use, infection, adverse drug events, and functional decline.¹⁸ Older patients are at particular risk for the development of these problems, and they make up over 1/3 of all new hospital admissions in the U.S. The table on the following pages shows some of the risk factors for these problems.

PATIENTS

As a student, you can work closely with your medical team to identify risk factors in your patients. The literature has shown that, for some hazards, treatment of risk factors or institution of preventive measures can reduce the incidence of these hazards.

Currently, this facet of patient care is suboptimal. Medical professionals often just don't think about these risk factors, and they certainly don't institute preventive measures as often as required. One example is the use of indwelling urethral catheters, which places patients at an increased risk for infection. In one study of physicians and medical students caring for patients at four university-affiliated hospitals, researchers presented participants with a list of patients they were following. For each patient, the provider was asked, "As of yesterday afternoon, did this patient have an indwelling urethral catheter?" Answers were compared to the findings on examination of the patient. The unawareness rate for medical students was 21%, 22% for interns, and 27% for residents. Even more problematic, catheter use was found to be inappropriate in 31% of the 117 patients with a catheter.¹⁹

Did you know ...

An excellent guide to medical errors and patient safety was published by the Department of Family Medicine at the New York Medical College. It is available at <http://www.nymc.edu/fammed/medicalerrors.pdf>.

SUCCESS ON THE W ARDS

Hospital-acquired risk factor	Hazards
Sleep impairment	Delirium, falls, physical restraints, mortality
Hearing impairment	Delirium
Vision impairment	Delirium, falls, functional decline
Balance, gait, or mobility impairment	Falls, physical restraints, urinary incontinence, pressure ulcers, functional decline
Depression	Delirium, functional decline, mortality
Pain	Delirium, adverse drug events
Cognitive impairment	Delirium, functional decline, falls, pressure ulcers, urinary incontinence, physical restraints. mortality
Malnutrition	Mortality
Urinary or fecal incontinence	Infection, pressure ulcers, functional decline
Bladder or catheter use	Falls, physical restraints
Pressure ulcers	Infection
Physical restraint use	Falls, mortality
Medications	Adverse drug events, delirium, falls, urinary incontinence, physical restraints
Lack of medical continuity	Adverse drug events
Fernandez H, Callahan K, Likourezos A, Leipzig R. House staff member awareness of older inpatients' risks for hazards of hospitalization. <i>Arch Intern Med</i> 2008; 168(4): 390-6.	

Rule # 18 Prevent medication errors.

Actor Dennis Quaid publicized his family's experience with an entirely preventable medical error that almost killed his twin babies. The babies were supposed to receive Hep-Lock to flush the IV; instead they were given heparin, "the same medication but a thousand times stronger."²⁰

PATIENTS

They received this overdose twice, and therefore almost hemorrhaged to death, due to events that the hospital later explained were a series of preventable errors.

This type of error has been reported by other hospitals, and in fact many had called for the replacement of Hep-lock IV flushes with saline flushes. Many other types of medication errors occur regularly. The medical team may administer the wrong medication, or the wrong dose. They may administer the right medication to the wrong patient, or the right medication in the wrong way.

In a chapter entitled "Don't let a hospital kill you," author Elizabeth Cohen reports what the actor now teaches patients to ask: is this medication for the right patient, is it the right drug, is it the right dose, is it the right route, and is it the right time.²⁰ These are the same questions that all medical professionals should routinely ask.

Rule # 19 Don't transmit a nosocomial infection.

According to the CDC, 1.7 million people developed nosocomial infections in 2002, leading to the deaths of nearly 100,000. How are antibiotic-resistant pathogens most frequently spread from one patient to another in healthcare settings? Via the contaminated hands of clinical staff. That means you.²¹

Hand hygiene is described as "the simplest, most effective measure for preventing nosocomial infections", and yet a review of studies that looked at average compliance rates found that most studies estimated compliance rates to be less than 50%.²² The title of a *Washington Post* article summarized this sad statistic well: "Medicine's dirty little secret: hospitals promote doctors to wash their hands."²³ There are numerous studies that examine how best to encourage compliance among health care professionals, and can be summarized by saying that no one method is uniformly successful.

Hand hygiene is probably the one area in medicine in which I encourage you to teach yourself. Many medical students learn their practices by observing their interns, residents, and attendings. Unfortunately, as studies have demonstrated, these physicians may or may not be compliant with the best practices to avoid nosocomial infections. Lankford and colleagues found that "health-care workers in a room with a senior (e.g. higher ranking) medical staff person or peer who did not wash hands were significantly less likely to wash their own hands."²⁴

Your mission is to protect your patients. Cleanse hands between every single patient encounter, even if you were wearing gloves, even if you only shook hands for a second, and even if no one else does so. Hand hygiene may include handwashing with soap and water, hand disinfection with disinfectants and water, or the use of alcohol-based hand rubs.

When I was an intern, my infectious disease attending watched me as I washed my hands, and then turned off the water using my bare hands. He drilled in me the lesson that once your hands are clean, you don't touch anything that could re-contaminate them. If you wash your hands, use your paper towel to turn off the faucet and open the door.

SUCCESS ON THE WARDS

Patients can and do die from nosocomial infections. Recognize that effective prevention of transmission begins with your own personal commitment.

Rule # 20 Your clothing may transmit infections. Change it or wash it.

To investigate if white coats may be a vector for transmission of nosocomial pathogens, University of Maryland researchers cultured the lapels, pockets, and cuffs of medical and surgical grand rounds attendees. Twenty-three percent of the attendees' white coats were contaminated with *S. aureus*. Eighteen percent of the *S. aureus* contaminated coats were methicillin-resistant (MRSA). Prevalence of contamination was greater in those working in inpatient settings, and those who saw an inpatient that day.²⁵

In a separate study of the white coats of medical students, researchers found that certain parts of the white coat, including the sleeves and pocket, were more likely to be contaminated. The authors also found that "the cleanliness of the coat as perceived by the student was correlated with bacteriological contamination, yet despite this, a significant proportion of students only laundered their coats occasionally."²⁶

Like white coats, neckties have been found to be contaminated with a variety of bacteria, including methicillin-resistant *S. aureus*.²⁷ Unlike white coats, however, which are laundered, neckties are rarely cleaned. This has led some infectious disease specialists to recommend forgoing the necktie when a clinician is involved in direct patient care.²⁸ One suggestion to reduce the risk of bacterial contamination is to clip the necktie to the shirt.

In 2007, after reviewing the literature in this area, the British National Health System implemented a hospital dress code described as "bare below the elbow."²⁹ The clothing and accessory items that were banned include the white coat, long sleeves, neckties, and hand and wrist jewelry. In the U.S., the American Medical Association is considering adoption of Resolution 720.³⁰ The resolution, introduced in 2009 by the organization's Medical Student Section (AMA-MSS) and discussed at the 2009 Annual Conference, involves "adoption of hospital guidelines for dress codes that minimize transmission of nosocomial infections." As of yet, no official recommendations have been made.

Rule # 21 You and your accessories and equipment are just one big potential fomite. Disinfect them, change them, or just don't use them.

Stethoscopes, other medical equipment, pagers, artificial nails, computer keyboards, as well as neckties, clothing, and lab coats, are all potential modes of transmission of nosocomial infections.^{31, 32, 33} Most medical students recognize this fact. Many don't do enough about this fact.

PATIENTS

In 2008, over 1700 medical students having daily patient contact completed a questionnaire about their hygiene practices regarding frequency of white coat replacement and stethoscope disinfection.³⁴

Frequency of white coat replacement and stethoscope disinfection (percentage)						
	After every contact	Daily	At least weekly	At least monthly	Less than monthly	Never
White coat	----- -	5	63	30	1	0
Stethoscope	6	13	26	28	15	10
Melenhorst W, Poos H, Meesen N. Medical students need more education on hygiene behavior. <i>Am J Infect Control</i> 2009; 37(10): 868-9.						

What can you do? Wash or disinfect your hands. Wash or disinfect your stethoscopes. Disinfect your pagers. Wash your hands after handling potential fomites, such as computer keyboards. Wash your clothing. Don't let patients contact items that aren't typically washed, such as neckties. Don't use artificial nails at all.

In one study, *Staphylococcus aureus* was isolated from 38% of stethoscopes.³⁵ According to a number of studies, rubbing alcohol pads on stethoscope diaphragms reduces bacterial colonization. In a prospective, randomized, double-blind study of 100 stethoscopes, researchers found that immediate cleaning led to a drop in the rate of contamination from 90% to 28%.³⁶

Another strategy is simultaneous cleansing of the hands and stethoscope using an alcohol-based hand foam. In one study, in which stethoscope heads were imprinted onto a chocolate agar plate, bacterial counts were significantly reduced in the post-wash plates.³⁷

**Rule # 22 The golden rule applies in medicine as well.
Treat patients as you would wish to be treated.**

What would you seek from your physician if you were the one lying in the hospital bed? In an interesting study done at UCLA, researchers hospitalized nine medical student volunteers who were at the end of their second year of medical school.³⁸ The goal was to expose students to hospitalization from the viewpoint of a patient. To make the hospitalization experience as realistic as possible, only the Director of Hospital Admissions, the Director of Nursing, and the attending physician on whose service the

SUCCESS ON THE W ARDS

student was admitted were aware of the student's actual non-patient status. Residents and interns caring for the student patient were kept in the dark. Of the nine student patients, none had ever been hospitalized. Prior to hospitalization, students were coached to present with one of three complaints:

- Severe lower back pain, left lower leg weakness and numbness following a motor vehicle accident
- Dehydration from nausea, vomiting, and diarrhea in an HIV-positive patient
- Loss of consciousness following head trauma secondary to a fall from a ladder

Once admitted, each student patient was evaluated by a house officer team, who performed the history and physical exam. Tests were ordered following the initial evaluation if the team deemed them necessary. Student patients were gowned in typical patient attire, placed in standard hospital beds, given hospital food, and were counseled to follow the team's orders, including "strict bed rest" and "nothing by mouth." Following a one-day hospitalization, students met with faculty members to discuss their experience.

PATIENTS

Domain	Representative comments/thoughts
Comfort	Student patients expressed discomfort with having to share a room with another patient and were frequently interrupted from sleep by hospital technology, TVs, noise from hallways, and other patients. Particularly distressing was not knowing what would happen next as well as the slow pace at which things seemed to move.
Interactions	Ratings of nursing staff were highest with students stating that nurses were caring, attentive, and professional. Four of the nine students reported that physicians were distant and cold. One student remarked, "The residents tended to stand far away from me, at the foot of the bed, talk rapidly and walk toward the door even before they finished speaking." Another said "I was ignored by the doctors while the nurses seemed to really care."
Privacy	Several students described feeling awkward when residents came in to round on them. "It felt so intimidating to have them all examining me at once; all trying to feel my abdomen. I felt invaded."
Impact of the experience	One student said that "I think communication is the key. Be compassionate and attentive to possible patient concerns. Patients need to be told what doctors are doing and when delays occur, you need to tell patients why the delays are occurring." Another commented "Communication is important. So is respect. I would tell them when I would drop by and then make sure I keep to that schedule. I would use 'please' and 'may I' a lot more than they do."
Adapted from Wilkes M, Milgrom E, Hoffman J. Towards more empathic medical students: a medical student hospitalization experience. <i>Med Educ</i> 2002; 36: 528-33.	

Participants felt that the experience of having been a patient would lead them to be far more empathetic than they would have been had they never been hospitalized.

Rule # 23 Introduce yourself correctly.

When meeting a patient for the first time, you must introduce yourself properly. The patient should know exactly who you are as well as your specific role in his care.

Hello, I'm Shawn Patterson. I'm a third year medical student who is part of the team that will be taking care of you while

SUCCESS ON THE W ARDS

you are here in the hospital. With your permission, I would like to ask you questions related to your medical history.

Did you know ...

In a videotaped analysis of histories performed by senior medical students, 30% of all students did not introduce themselves by name.³⁹ 44% neglected to mention that they were medical students.

Rule # 24 It is unethical for patients to believe you are a doctor.

Since you haven't yet received your M.D. degree, you should never introduce yourself as "Doctor."

Did you know...

At the Medical and Public Health Law Site, the LSU Law Center writes that "the practice of introducing a medical student to patients as 'doctor,' 'young doctor,' or a 'student doctor' is fraud. A reasonable person introduced to a doctor in a medical setting assumes that this term denotes a licensed physician with a doctoral degree in medicine."⁴⁰

Not long after you start clerkships, you'll notice that other healthcare professionals will, at times, introduce you as a "student doctor" or "student physician." While these individuals are well-intentioned, this tendency can be deceptive to patients. The danger with attaching the word "doctor" or "physician" to "student" is that the patient may assume that you have the qualifications and responsibilities of a doctor.

Did you know...

In one study of preclinical and clinical students at five Philadelphia area medical schools, researchers found that most preclinical students felt that it was important to introduce themselves as medical students and to request patient's permission before proceeding with the encounter.⁴¹ However, clinical students attached less importance to informing patients of their student status.

If a team member introduces you as a "doctor," clarify your position and role to the patient at the appropriate time. Do so in a way that avoids embarrassment. Even though no harm was meant, patients should have no misunderstandings about the healthcare professionals participating in

PATIENTS

their care. Once informed, patients are usually receptive to having a medical student involved in their care. For those who aren't, their wishes must be respected.

Making your student status clear preserves the patient's right to refuse your participation in their care. You'll probably find, though, that most patients will readily agree to your participation. Patients often enjoy taking an active role in educating tomorrow's doctors and gain considerable satisfaction through these interactions.

Did you know...

In one study, over 100 adult emergency patients undergoing procedures (sutures, intravenous access, splinting) were surveyed to determine if they would allow first-year medical students to perform the procedure after being told of their relative inexperience.⁴² Ninety percent of patients allowed students to perform the procedure.

Rule # 25 The patient-physician relationship begins with the first words spoken. Greet patients properly in order to establish trust and rapport.

What do you say to a patient when you meet them for the first time? Are you supposed to shake hands, wave, or just smile? What do patients themselves expect from their doctors?

In a study by Northwestern University researcher Dr. Gregory Makoul, patients reported that healthcare professionals often do not introduce themselves properly or clarify their roles.⁴³

Over 400 patients were surveyed regarding preferences for shaking hands and the use of patient and physician names during the initial part of the encounter. Researchers also videotaped patient visits to learn about patterns of greeting behavior demonstrated by physicians.

SUCCESS ON THE W ARDS

Patient preferences regarding physician greeting behavior

	What do patients prefer?	What do physicians do?
Handshake	Majority of patients wanted the physician to shake hands with them; only 18% did not.	Only 9 of 19 physicians shook hands with every patient.
Use of patient name	Over half of patients wanted physicians to use their first name, 17% wanted their last name, and 24% wanted both first and last names to be used.	In over 50% of encounters, physicians did not mention patient names at all. When patient names were used, there was a tendency to only use the last name.
Use of physician name	Most patients prefer that physicians introduce themselves using their first and last names. Thirty-three percent expect physicians to only use their last name. Seven percent prefer that physicians use their first name only.	Most physicians use both their first and last names and, when doing so, generally leave out the title "Dr." Thirty percent only used their last name, prefacing it with "Dr." Of note, 11% did not introduce themselves at all.

Data from Makoul G, Zick M, Green M. An evidence-based perspective on greetings in medical encounters. *Arch Intern Med* 2007; 167 (11): 1172-6.

Based upon the study's findings, researchers recommended that physicians shake hands with patients. Remain sensitive to the patient's body language, however, since nearly 20% of patients did not want the physician to shake hands. The authors also suggest using the patient's first and last names initially, along with their own first and last names, when introducing themselves.

Survey participants were also allowed to comment on other aspects of the greeting. Patients preferred that their physicians be smiling, personable, and respectful. Eye contact was important, as was making the patient feel like a priority.

Tip # 12

A successful medical interview requires that you first pay attention to your environment. Make adjustments to the physical arrangements when needed.

Turn off the television, close the door, slide the bed curtain for maximum privacy if you are in a two-patient room, and arrange seating to allow for easy and level eye contact. The seated position allows both the physician and patient to be on equal footing. It also reinforces that the physician is ready and able to give their full attention to the patient.

PATIENTS

Rule # 26 Your attire can impact your patient's trust and confidence in you as a physician.

On the first day of medical school, Dr. Wilson, dean of the School of Medicine at the University of North Dakota, reminds students that they are junior colleagues of the faculty. "I think it's easy for medical students to see medical school as an extension of their general education, at least for the first couple years. Our students see patients right away, and they learn doctoring skills right away. They need to start behaving like doctors right now..."⁴⁴

For students who will be meeting and examining patients, it is of obvious importance to look like a doctor. Most studies have shown that patients prefer physicians to be well dressed in formal attire. In a study from the Medical University of South Carolina, patients were surveyed to assess whether formal attire influenced the development of trust and confidence in physicians.⁴⁵ Patients viewed pictures of physicians in four different dress styles, and were then asked to complete a written survey. These styles were:

- Business attire (suit and neck tie for male physicians, tailored trouser or skirt for female physicians)
- Professional attire (same as business attire but also included white coat)
- Surgical scrubs
- Casual attire (jeans and T-shirt for male physicians, jeans or short skirt for female physicians)

Study participants were asked about their preferences, as well as their trust, and confidence in discussing sensitive issues with the physician in each picture. Respondents overwhelmingly favored "physicians in professional attire with a white coat." They were much more likely to share sensitive personal information, including sexual and psychological problems, with professionally dressed physicians.

Rule # 27 Plan your initial interactions with a patient.

In your physical diagnosis course, it was all much more clear-cut. You entered with the attending, he or she introduced you, and then you got started. In rotations, you are typically assigned a patient. You are then expected to locate the patient and get started. There's usually no attending to help you get started or to introduce you. Below is a sample script of how a typical medical student exam might begin:

Beginning the student-patient encounter	
Step	Script

SUCCESS ON THE W ARDS

Step 1: Ask for permission to enter the patient's room. Confirm the patient's identity.	Good afternoon, are you Mr. Larry Jones? May I come in?
Step 2: Introduce yourself properly, leaving no ambiguity about who you are and what you will be doing.	My name is Katie Litton. I'm a third-year medical student here at _____ and a member of the team that will be taking care of you while you are in the hospital. I believe that Dr. Ran, my resident, informed you that I would be stopping by.
Step 3: Express appreciation for the patient's participation and request permission to proceed.	I really want to thank you for letting me participate in your medical care. Is this a good time for us to talk?
Step 4: Inform the patient that he or she is not obligated to participate.	Mr. Jones, I would like to take your history and then follow that with the physical exam. If there are any parts of the history or physical exam that you would rather not do, please feel free to tell me at any time. Also, if at any point you want to stop, that's perfectly fine too.
Step 5: Inquire about patient's comfort or needs before beginning the interview	Before we start, are there any questions that I can answer for you? Is there anything you need before we start?

Rule # 28 Your patient is not a disease. Do not refer to them as such.

In 1927, Dr. Francis Peabody published his now-famous essay "The Care of the Patient."⁴⁶ He reminds us that our patients are not cases. They are individuals. [JAMA 88; 1927 The care of the patient Francis Peabody 877-882]

When a patient enters a hospital, one of the first things that commonly happens to him is that he loses his personal identity. He is generally referred to, not as Henry Jones, but as "that case of mitral stenosis in the second bed on the left." There are plenty of reasons why this is so, and the point is, in itself, relatively unimportant; but the trouble is that it leads, more or less directly, to the patient being treated as a case of mitral stenosis, and not as a sick man. The disease is treated, but Henry Jones, lying awake nights while he worries about his wife and children, represents a problem that is much more complex than the pathologic physiology of mitral stenosis, and he is apt to improve very

PATIENTS

slowly unless a discerning intern happens to discover why it is that even large doses of digitalis fail to slow his heart rate. Henry happens to have heart disease, but he is not disturbed so much by dyspnea as he is by anxiety for the future, and a talk with an understanding physician who tries to make the situation clear to him, and then gets the social service worker to find a suitable occupation, does more to straighten him out than a book full of drugs and diets. Henry has an excellent example of a certain type of heart disease, and he is glad that all the staff find him interesting, for it makes him feel that they will do the best they can to cure him; but just because he is an interesting case he does not cease to be a human being with very human hopes and fears.

Rule # 29 The cafeteria, the elevator, the hallway: all are public places, and should be treated as such.

Have you noticed the signs in many hospital elevators? "We respect patient confidentiality." There's a reason these signs have become so widespread. Physicians and other healthcare professionals used to discuss cases on elevators and in other public locales, as if they were the only individuals in the vicinity. Obviously, though, you aren't alone in these locations, and your conversations are frequently overheard.

According to the AMA's Principles of Medical Ethics, medical students and physicians "shall respect the rights of patients including the right to confidentiality, and shall safeguard patient confidences within the constraints of the law."⁴⁷ While students understand the importance of maintaining patient confidentiality, adhering to the rules can be challenging and often requires strict vigilance to avoid inadvertent disclosure. In an article published in the *British Medical Journal*, the authors wrote that most breaches of confidentiality occur "in settings such as ward rounds in cubicles with multiple beds and overheard 'discussions management' in corridors."⁴⁸

Elevators are another hot spot. In a report published in the *American Journal of Medicine*, researchers described breaches of confidentiality that occurred in hospital elevators.⁴⁹ As the researchers repeatedly went up and down in elevators, they listened to the conversations of hospital staff. Analysis of 259 elevator trips revealed that in 14% of trips inappropriate comments were overheard. The most common violations were breaches of patient confidentiality. In one case, a team of physicians entered the elevator discussing a patient's test results.

Another study observed medical personnel behavior in a large emergency department. Observers documented privacy and confidentiality breaches in various patient care areas.⁵⁰ Breaches in the triage/waiting area were common, affecting over 53% of patients. Breaches near the physician/nursing station were also frequent, ranging from 3 to 24 per hour. The authors wrote that "all members of the health care team committed confidentiality and privacy breaches."

SUCCESS ON THE WARDS

Some breaches are intentional. In 2008, 25 employees of the UCLA Health System, including six physicians, faced possible disciplinary action for accessing the electronic health record of Britney Spears while she was involuntarily hospitalized.⁵¹

Confidentiality can also be breached through the Internet. When student affairs deans at U.S. medical schools were asked about their experiences with online posting of unprofessional content by students, 13% of deans reported violations of patient confidentiality.⁵² Blogging about a patient encounter with a level of detail that could lead to patient identification was cited as a real life example.

Regardless of whether the breach is inadvertent or intentional, the end result is the same – violation of the patient's privacy and a breach of your ethical responsibility to your patients.

Rule # 30 You are in a position to put your team at risk for a lawsuit. Do not do so.

Why do patients sue their physicians? With so much money at stake, there are numerous studies devoted to answering this question. Why do some patients sue their doctors when there hasn't been a negative outcome? Why would some sue over a tiny scar? Why do some patients, on the other hand, truly experience medical negligence, and then decide not to sue? While physicians may expect that medical errors would be most likely to trigger a lawsuit, several findings point to communication, or rather miscommunication, as the major factor.

For those just starting out in patient care, this can be surprising. Ask any malpractice lawyer. Lawsuits aren't filed due to poor patient care alone. They are filed due to poor patient outcomes and poor communication, even when the medical care provided was entirely within the standard of care. "Poor communication is the leading reason physicians get sued" states Dr. Michota, director of academic affairs for the department of hospital medicine at the Cleveland Clinic.⁵³

A number of authors reinforce that communication issues play an important role in a patient's decision to sue. Beckman et al studied depositions made by patients and families who were bringing a malpractice suit.⁵⁴ They found that physician relationship issues played a role in 71% of the depositions. They found four themes within the relationship issues. These included perceived desertion of the patient, delivering information poorly, and either failing to understand the patient perspective or devaluing the patient or family views.

These findings underscore the need for students and physicians to always maintain respectful interactions with patients and families. Even if medical science tells you the patient is completely wrong about the cause of his cancer, listen carefully to his point of view and acknowledge his beliefs with respect. Ensure that the patient knows that you are always available to answer questions or respond to concerns. Learn from your attendings and residents how best to deliver bad news. Lastly, even if your team believes that another physician or hospital was medically negligent, it is not your place to discuss this with the patient. Suggestions by

PATIENTS

another healthcare professional of prior malpractice may also lead to a decision to sue.⁵⁴

Rule # 31 How you speak to a patient can impact your risk of a lawsuit.

In the bestselling book *Blink*, the author Malcolm Gladwell talks about the power of first impressions.⁵⁵ In one section, he describes two studies that evaluate a doctor's likelihood of being sued.

In two groups of surgeons, in which there was no difference in the amount or quality of information, communication skills made all the difference. The "better" doctors, who had never been sued, were more likely to exhibit several communication factors:

They were more likely to make "orienting" comments: "I will leave time for your questions."

They were more likely to engage in active listening: "Tell me more about that."

They were more likely to laugh during the visit.

Overall, they spent 18.3 minutes on average with their patients versus 15 minutes.⁵⁶

In a separate study, another researcher, Dr. Ambady, listened to the tapes of these same conversations, and chose 40 seconds of conversation for each doctor.⁵⁷ She then changed the frequency of the conversation so that she preserved pitch and rhythm but removed content. Without even knowing what the surgeons were saying to their patients, she was able to predict which surgeons got sued and which didn't. The main difference: one group sounded more dominant, while the other sounded less dominant and more concerned.

In earlier years, we termed these skills "bedside manner". Now we term them "communication skills". There is no doubt that these skills impact patient compliance, patient outcomes, and the risk of lawsuits. As a medical student, and later as a clinician, you will constantly be honing these skills.

Rule # 32 Do what you can to prevent lawsuits.

As you begin rotations, you may be concerned about potential liability. The reality of the situation is that any member of the health care team, including students, can potentially be sued for medical malpractice. However, it is rare for students to be involved in lawsuits.

Your medical school or academic health center will carry liability insurance for you. [There are limits to the policy, and if a judgment is awarded exceeding the limit, a student can be personally liable for the difference.] However, the coverage provided by such policies generally requires that you be engaged in clinical activities that are commensurate to your training level and under the supervision of your medical school's faculty and/or house staff. These policies often include coverage for clini-

SUCCESS ON THE W ARDS

cal activities performed during visiting electives at other institutions. In the table below, we offer some general guidelines to help students avoid legal liability while in medical school and, later, as a practicing physician.

Issue	Recommendations
Identification	Your status as a medical student should never be in doubt. Always identify yourself as a student. Always wear identification name tags, and have tags prominently displayed in all patient interactions. All notations made in the patient chart should be signed with a notation indicating your status as a student.
Order writing	Have all orders reviewed and cosigned by your supervisor. Execution of your written order without review, approval, and co-signature of your supervisor exposes you to personal liability should the execution of the order result in harm to the patient.
Performing procedures	When gaining proficiency in basic medical procedures, including placement of intravenous lines, phlebotomy, and catheter insertion, you should be closely and personally supervised by your attending physician or resident. Once you have gained proficiency in a procedure, you must never perform that procedure unless it is ordered by your supervising physician. If you do not feel proficient in a procedure, you must communicate this so that you can be supervised properly. You should never be afraid to say, "I don't know how to do this."
Informed consent	Whenever a proposed treatment or procedure is associated with risk to the patient, informed consent must be obtained. Once the known risks and complications of the procedure have been communicated to the patient, he or she can make an informed decision regarding whether to proceed. While medical students need to learn how to obtain informed consent, it is the attending and resident physician who should ideally obtain informed consent.
Bedside manner	Lawyers will tell you that the best way to shield yourself from a lawsuit is a good bedside manner. When naming physicians in a lawsuit, patients have been known to insist on leaving a particular name out, particularly if the doctor was caring and nice.
Documentation	Thorough and accurate documentation is of obvious importance in delivering high quality patient care. Such documentation is also essential to deterring lawsuits, particularly when there is disagreement later about what was said. Failure to document can lead to a "he said, she said" contest with the patient.

PATIENTS

Criticism of other caregivers	Critical comments of another physician's care can trigger a lawsuit. Patients commonly ask healthcare professionals to comment on the care they received elsewhere. In many cases, physicians form opinions based only on the patient's account. According to David Karp, a risk management consultant, this can be problematic. "Too often," he says, "physicians will criticize a colleague's treatment based on the patient's own account of what occurred, without reviewing the case with the previous physician. Such injudicious remarks have triggered many lawsuits, meritorious or not." ⁵⁸
Patient's right to confidentiality	Under the Health Information Portability and Accountability Act (HIPAA), private health information cannot be divulged to anyone outside of the medical team without the patient's authorization. This includes the patient's family members and friends. This also includes your spouse, best friend, and classmates.
Disclosure of medical error to patients	As a medical student, you may witness or commit a medical error. You should not disclose such errors to the patient without first discussing it with the senior members of your team. In some cases, what is perceived to be an error is not deemed so after a thorough review of the situation. If an error was made, discussion with risk management is generally recommended before meeting with the patient. In cases of student error, the supervising physician is the appropriate person to disclose the information. Studies have shown that an apology following honest and full disclosure of an error can prevent a lawsuit.

Rule # 33 Excellent patient communication skills translate to better patient care.

It seems painfully obvious that in order to provide the best patient care, you must hone your patient communication skills. However, too many physicians pay lip service to this concept. What does patient communication mean? How does improving your communication skills translate to better patient care and outcomes?

Studies have shown that good communication improves the physician-patient relationship. It also allows more accurate identification of patient problems and enhances compliance with therapy. Overall it leads to greater patient satisfaction with care and results in fewer incidents of malpractice.

The American Academy on Communication in Healthcare has examined this issue in detail.⁵⁹ They divide patient-physician communication into three functions: information gathering, relationship building, and education.

Information gathering includes talking to the patient to obtain a correct history of present illness.

SUCCESS ON THE W ARDS

Relationship building means using the patient encounter as a means to establish a relationship with the patient, in which the patient believes what you are saying, trusts that you know what you are talking about, and feels confident enough in your abilities to follow through on your recommendations.

Education means learning how to translate evidence-based medicine into easy to understand concepts that your patient can comprehend and internalize.

Did you know...

Considerable research done over the years has demonstrated that physician-patient communication is often suboptimal. In 2004, this led the Institute of Medicine to make the acquisition and development of communication skills a top priority during medical education. That same year, the National Board of Medical Examiners (NBME) began requiring medical students to take a clinical skills examination (USMLE Step 2 CS) as a means to assess competence in communication.

Rule # 34 Information gathering means more than just asking the questions. It includes listening to the patient.

What is the ideal way to gather information from patients? What is the best way to obtain an accurate HPI? Studies have been performed on this issue, because it's an important one. In one observational study of medical interns and residents, trainees often did not allow the patient to tell the story of their illness. "A series of rapidly fired questions often led to disjointed, discontinuous story, or to a series of yes and no answers."⁶⁰ With this approach, they found that errors in the medical interview were common.

In an often cited study, Beckman and Frankel found that physicians frequently prevented patients from completing just their opening statements.⁶¹

- Interruptions occurred after a mean time of just 18 seconds.
- Less than a fourth of patients were actually able to complete their statement.
- Patients who were not interrupted usually completed their statement in less than 60 seconds. No patient took longer than 150 seconds.

In a majority of cases, physicians had interrupted patients after the first complaint, assuming that this was the chief complaint. However, the order in which patients presented their concerns was not related to clinical importance. Therefore, in obtaining the history, the physician may have actually missed the chief complaint.

Published in 1984, this study has received considerable attention and press over the years. To see if it led to a change in physician prac-

PATIENTS

tice, Marvel repeated the study in 1999 with a group of experienced family physicians.⁶² Interruptions were again the norm, with only 28% of patients being allowed to complete their statement. Even more important, once interrupted, the likelihood of the physician allowing the patient to voice other concerns was only 8%.

These deficiencies have considerable potential impact. In some cases, physicians don't even get the chief complaint right. Incomplete information also impacts hypothesis generation and testing, and therefore directly impacts diagnosis and treatment. Such physicians also score lower in patient satisfaction, and many fail to develop the most effective relationships with patients. This impacts compliance, trust, and the risk of lawsuits.

Rule # 35 Incorporate the essential elements of effective information gathering.

In 2001, a group of experts representing medical schools, residency programs, and medical education organizations developed a list of essential elements of physician-patient communication. The resulting Kalamazoo Consensus Statement provides recommendations on gathering information from patients.⁶³

- Physicians should use open-ended and closed-ended questions appropriately

Closed-ended questions are those that require patients to answer specifically. An example is a question that asks for a "yes or no" answer. Contrast this with an open-ended question or statement which allows patients to elaborate. "Tell me about your back pain" is an example of an open-ended statement.

There is a role for both types of questions in the physician-patient encounter. It is recommended, however, that physicians begin with open-ended questions, which allows the patient to tell his or her story fully. This can be followed later by closed-ended questions. Unfortunately, physicians sometimes transition too quickly. This "physician-dominated" rather than "patient-centered" approach has been shown to be far less effective.

- Throughout the interview, physicians should structure, clarify, and summarize information. Summarizing information periodically shows the patient that their story has been heard and allows for correction of any misunderstandings.
- The most effective physicians display active listening. This includes nonverbal techniques, such as eye contact and body position, as well as verbal techniques, such as words of encouragement. While we often focus on what is said in the physician-patient encounter, there is no denying the importance of nonverbal communication. The "right" body language can enhance communication. Certain body language indicates that the physician is listening and is interested in what the patient is saying. This includes head nodding,

SUCCESS ON THE WARDS

a comfortable degree of eye contact, a forward lean in the chair, and more direct body orientation with uncrossed arms and legs.⁶⁴

Rule # 36 Communication with patients encompasses more than just talking about their disease. Acknowledge their concerns and feelings, and recognize the impact of the illness on their life.

Mrs. S was admitted for chemotherapy. In obtaining the history of present illness, the student was doing a thorough job of chronicling the details of the cancer and previous therapies. The patient looked anxious, and finally said “I’m so worried about what will happen to my kids if this chemotherapy doesn’t take care of my breast cancer.”

Patient communication is much more than just gathering the information related to the illness — although that is obviously critical. It’s important to acknowledge the impact that a patient’s illness has on every aspect of their life. An illness can create consequences in any or all of multiple realms, including the social, emotional, financial, and professional.

When you’re learning how to take a thorough history, it can be hard to incorporate these other concerns. New clerks struggle with this issue, especially since they tend to conduct a medical interview using a script. They worry that they’ll miss a critical piece of information if they don’t ask every single question on their list. Some students become so focused on the next question that they don’t hear the patient, and they don’t make eye contact. When you’re talking to a patient, it’s important not to just ask question after question. Listen to the patient, acknowledge their concerns and feelings, and respond empathically to the patient who expresses concern.

Did you know...

One videotaped analysis of histories performed by senior medical students found that “patients were often forced to repeat key phrases such as ‘I was feeling very low’ as many as 10 times in order to get students to acknowledge their mood disturbance.”⁶⁵

Rule # 37 Patient education is often suboptimal. Begin by discussing the diagnosis and thoroughly reviewing the treatment plan.

Patients want to know their diagnosis, and they want to know the treatment plan. Sounds simple enough. However, studies have shown that patients often desire more information than physicians provide.⁶⁶ Physicians in turn often overestimate the time they devote to the task of information giving. In one study of internists, a little more than one minute, on

PATIENTS

average, was given to this task. However, the internists believed that they had spent approximately nine minutes.⁶⁷

While many patient visits end with a new prescription, research demonstrates that critical elements of medication use are often not communicated to patients. If you're prescribing a new blood pressure medicine, you need to tell the patient about the potential side effects, and you need to tell them how long they need to take the medication. Do they take it for-ever, until they feel better, or until you tell them otherwise? In one study, adverse effects were addressed for only 35% of new prescriptions, and duration of use information was given for only 34%.⁶⁸

Patient education in a hospitalized setting can be even worse. Forget potential medication side effects. Do patients even know the names of their doctors when they're hospitalized? Northwestern University researchers interviewed 239 hospitalized patients. They were asked the names of their physician and nurse, and the plan of care for the day, including planned tests, procedures, medication changes, and physician services consulted. Only 32% of patients were able to correctly name at least one of the physicians involved in their care.

Just as concerning, almost half of patients did not know what would happen to them in the hospital that day. In 48% of instances, there was no agreement between patients and physicians on the planned tests or procedures for the day.⁶⁹

Rule # 38 As a student, you are in a position to provide high quality patient education.

You will have fewer patients to follow than any other team member. As a result, you will have extra time to spend with your patients. Use this time to educate your patients on their illness. Let them know where things stand, what's in store for them on a particular day, and what they can expect in the long-term. Most patients appreciate patient information brochures. These can be found in your hospital library or online. If provided online, obtain information only from reputable sources. Some patients are actually told to seek out their own information, but a simple Google search may lead to commercial, biased, or even fraudulent sites. Patients may also be interested to hear of local support groups, such as the Scleroderma Foundation or the Arthritis Foundation. Some patients wish to become more involved in their own care, and are not sure how to proceed. The Agency for Healthcare Research and Quality (AHRQ), part of the US Department of Health and Human Services, publishes brochures that patients may find helpful. The website www.ahrq.gov/path/beactive.htm includes information on topics such as taking a medication safely, planning for surgery, and helping to prevent medical errors.

Accompany your resident or attending when they visit your patient to discuss discharge instructions. Return to the patient's room later to make sure the patient understood all instructions. You and your team have worked hard to provide the patient with effective treatment. Now, as the patient is being prepared for discharge, you need to ensure that she is ready to assume responsibility for her own care. Make it a point to:

SUCCESS ON THE WARDS

- Speak to the patient in language that she can understand
- Spend the time necessary to educate and counsel the patient. Make sure the patient is familiar with the illness, the names and dosing schedule of all medications, and side effects of therapy
- Determine if the patient actually understands the discharge instructions (verbal and written)
- Allow the patient to ask questions about the diagnosis and treatment plan

Did you know ...

In a study involving 47 patients at the time of hospital discharge, researchers sought to determine the level of understanding patients had of their discharge diagnoses and names, purpose, and common side effects of prescribed medications.⁷⁰ They found that only 41.9% knew of their diagnosis or diagnoses. Even less were able to list the names (27.9%), purpose (37.2%), and common side effects (14.0%) of their medications.

Rule # 39 Avoid the use of medical jargon.

Some healthcare professionals have a tendency to talk to patients as if they were colleagues. If you haven't witnessed this yet, you will soon. I still remember hearing a liver specialist tell a patient why she had abnormal liver function tests. He was convinced that the patient had hepatic steatosis (fatty liver) and was throwing this word around without defining it. The patient had a perplexed look on her face as he explained to her what the work-up would entail.

Don't use medical terms such as CHF or COPD when explaining to a patient the possible reasons for his difficult breathing, unless the patient clearly understands these terms. Instead, replace these medical terms with language that is easily understood.

In a study of communication between internal medicine residents and standardized patients involving cancer screening, researchers noted the use of a "large number of jargon words and low number of explanations."⁷¹ In another study of physician use of jargon when caring for diabetic patients, 81% of patient encounters involved the use of at least one unclarified jargon term (with a mean of 4 jargon terms/visit). Researchers found low patient comprehension rates.⁷²

Rule # 40 Informed consent must be obtained and documented prior to all procedures.

Before a patient agrees to a procedure, they need to know what the procedure involves, including all of the risks and possible outcomes. A patient can only give permission to undergo a procedure if they are fully informed. Informed consent is at the heart of ethical medicine. It is also at the heart of many lawsuits.

PATIENTS

Medical students need to learn how to obtain informed consent properly. However, the attending or resident physician should ideally obtain informed consent. Sherman defines informed consent as the "process by which a physician and patient discuss the possibility of the patient deciding to consent to a proposed preventive or therapeutic intervention. The outcome of this process is the patient's decision to receive or forego treatment."⁷³

Some physicians delegate this responsibility to other staff members, including nurses. This is not optimal, and some groups consider it wrong. You won't know whether the consent was obtained adequately. You also need to be present for the patient, and be seen as having the time to address and answer any concerns.

You cannot obtain informed consent for a procedure unless you, yourself, have complete knowledge of the risks, benefits, and alternatives of the procedure. You also must be able to answer correctly any questions about that procedure. You must read, ask questions, and be thoroughly educated yourself before you can properly obtain informed consent.

Once consent is obtained, it needs to be well-documented in the patient chart. The documentation should be clear and thorough, including all risks and complications of the procedure discussed with the patient. Consent for the procedure should be signed and dated by the patient, as well as witnessed properly, before being placed in the chart.

Did you know ...

In one study, researchers asked first-year surgical residents about the risks, benefits, and alternatives for five surgical procedures, including abdominal aortic aneurysm repair, total thyroidectomy, laparoscopic cholecystectomy, open inguinal hernia repair, and esophagogastrectomy. The authors found that "few residents were able to correctly list all risks, benefits, and alternatives of any of the procedures." Study participants were also asked to answer questions that patients might ask about each procedure. Less than 50% of the questions were answered correctly.⁷⁴

Rule # 41 Family members play a crucial role in patient care. Involve them appropriately.

Physicians often underestimate the influence of family members on patient care, thus overlooking a great resource. Case Western Reserve University School of Medicine researchers noted that in 32% of all family practice office visits, family members were present.⁷⁵ The management of chronic diseases in the outpatient setting often requires the involvement of family members to ensure compliance and successful therapy. Discharge planning and education following hospitalization also requires the input of family members. Clinical trials have shown that significant improvement can be realized in certain patient behaviors when a family member is involved in the treatment. This includes how faithfully patients

SUCCESS ON THE WARDS

keep appointments, take their medications as prescribed, and stick to the treatment plan.⁷⁶

Tips for communicating with family members

- Include family members whenever possible when communicating with patients. There are numerous reasons to do so, not the least of which is that it demonstrates respect for the patient and those important to him. Many physicians will walk into a room, look at the patient, and never acknowledge the person who has just spent the night at the bedside. You need to introduce yourself properly and ask about them and their relationship with the patient.
- Before including any family member or loved one in a discussion, ask the patient if he would prefer that you speak to him alone.
- In a family interview, allow each family member to speak, acknowledge, legitimize, and respond to any expressed emotions.
- Avoid taking sides. Siding with a family member can affect the physician-patient relationship. Listen carefully to the family member's concern and then ask the patient to respond to the concern.
- Maintain patient confidentiality. Do not discuss diagnostic or treatment decisions with family members unless you have been given permission to do so. Remember that sensitive personal information such as sexual history or drug abuse may not be accurately conveyed to you in the presence of family members.
 - For sensitive issues, an ideal time to ask these questions is during the physical exam when you are likely to be alone with the patient.
- Use what you learn from the interview to create a plan that takes into account the patient's and family's concerns.
- News of certain health conditions, such as diabetes or cancer, can be overwhelming to patients. A family member or close friend may be able to listen better and actually process what you say. They may be the ones to take notes and ask relevant questions.
- If a patient does not speak English, a family member may not be the best translator. Some family members are overwhelmed by bad news and are unable to function well. Children may not have sufficient comprehension of medical issues in order to translate well. Even adult children, particularly those raised in America, may be able to speak their native language at home, but may lack the knowledge to fully translate medical terms. In issues involving personal questions, patients may not be honest if a family member is translating. A patient may not give an accurate sexual history if their child is the translator. Hospitals do have translators available, and many subscribe to telephone translation services for those languages infrequently encountered.
- When planning lifestyle modifications, a spouse or caregiver must be involved. If you recommend a change in diet, in order to be

PATIENTS

successful the entire family must be involved. Particularly when a spouse does all the grocery shopping and cooking, such information may actually need to be directed primarily at them.

- Interventions such as smoking cessation efforts work best with the support of the family. You can involve them in the discussion and make clear to them how important they are to the patient's success.
- With some chronic diseases, family members become caregivers. The care of a patient with dementia is exhausting, emotionally and physically, and has been shown to affect the health of the caregiver. Some caregivers make Herculean efforts day after day and have no one that recognizes that fact. Do what you can by acknowledging and praising their efforts.

Rule # 42 Utilize professional interpreters.

While family members are often used as interpreters, this practice leads to potential problems. In one study, encounters between physicians and patients were videotaped when either a professional or family interpreter was required. Information transfer was found to be more accurate through a professional interpreter. Family interpreters were found to often speak "as themselves rather than rendering the words of doctor and patient into the other's language."⁷⁷

When interpreters are required, residents may underutilize the service, even when it is readily available. In a study of IM residents at two teaching hospitals with readily available interpreter services, residents indicated that they underused professional interpreters, stating that it was "easier to get by" without doing so. Interpreters were less likely to be used when residents were constrained for time, when family members were available to fulfill the role, or when the resident had some second language communication skills.⁷⁸

Rule # 43 The electronic health record is a technological and medical breakthrough, but it poses unique challenges in patient interactions.

It used to be that you would sit down, with your clipboard ready, and talk to a patient face to face. The electronic medical record (EMR) has changed that. It is definitely a medical breakthrough, but it has introduced different facets to physician patient communication. In a study of third year students in the ambulatory setting, many felt that the EMR affected their ability to establish rapport with patients, and nearly half reported that its use led them to spend less time looking at the patients.⁷⁹ Only 21% felt that patients liked them using it.

Researchers at the University of Texas Southwestern Medical School have studied ways to improve EMR-specific communication skills.⁸⁰ These involve introducing yourself before turning to the computer, and moving closer to the patient so that they can read the screen. Other

SUCCESS ON THE WARDS

strategies involve the patient further, by showing them vital signs, flow-sheets or health trends on the computer screen.

Rule # 44 You cannot take it personally.

Your patients are generally good people. Good people, when faced with the stress of illness, sometimes act in uncharacteristic ways.

Patients lash out at their doctors for many reasons. Being sick enough to be hospitalized is frightening for most people. Patients commonly feel afraid, confused, and powerless. They feel they have no control over what's happening to them. Physical factors, such as acute or chronic pain, may play a role. The realities of living with a life-threatening illness, or dealing with bad news that impacts prognosis or risk of disability, are all severe stressors.

Sometimes the healthcare system itself can be the cause, as in long waiting times for a test, or an intrusive procedure, or denied insurance claims. At other times, the patient-physician relationship will cause a patient to lash out, as when a physician is perceived as arrogant or disrespectful.⁸¹ Understand that there may be a number of factors at play when a patient lashes out at you, and in most cases you should not take it personally.

Rule # 45 You will encounter angry patients. Know what to do.

- Understand why the patient is angry. Generally, patients become angry when we fail to meet their expectations.
- Listen carefully to the patient. Too often, in our hurry to fix the problem, we fail to listen properly.
- Rather than standing over the patient or by the door, ask the patient if you can sit down. Do not sit down on the patient's bed.
- Speak in a normal tone of voice
- Begin by saying, "Mr. Woods, the nurse informed me that you have some concerns regarding your care. Could you fill me in ...?"
- Let the patient speak without interrupting. Avoid the tendency to interrupt the patient to ask a question or offer an explanation. Instead, let the patient speak until he has finished.
- Avoid angry or defensive responses, which only tend to worsen the situation.
- After the patient is finished, summarize what you have heard to make sure you have understood properly. "So Mr. Woods, as I understand it, you expected ..."
- After the patient has expressed his concern, ask him how he feels about the situation. Then acknowledge that feeling. "I can understand how that would make you feel ..."

PATIENTS

- Determine what will make the patient feel better. "What can I do to make you feel better about this now?"
- Apologize if appropriate
- Finish your conversation by asking the patient if he is satisfied with your understanding of the situation and your plan to address his concern

Tip # 13

Hospitalized patients often feel as if they have no control. This can be extremely distressing. You can diminish this sense by keeping your patients well informed of what will happen next.

Did you know ...

In a survey of second-year medical students at the Kansas University School of Medicine, researchers asked students to report personal characteristics of patients that might evoke a negative personal reaction, interfering with their ability to provide quality clinical care.⁸² Comments included:

"Patients who are violent or mean to staff"

"People who treat me with animosity"

"Vulgar, disrespectful, antagonistic patients"

"Drug/alcohol/substance abusers who have horrible, rude, or unpleasant attitudes"

"Chronic complainers who never seem to appreciate care" "People who don't take responsibility for their actions (everything is everyone else's fault)"

This study raised concerns that students may lose objectivity when caring for patients with certain personal characteristics.

Rule # 46 Know what to do if the angry patient becomes aggressive.

The measures we describe are effective in defusing most situations in which patients express anger. However, despite the use of effective techniques, you won't be able to calm down some patients. In some cases, patients are prone to aggression because of underlying illness, such as alcohol or drug abuse, withdrawal, delirium, or psychiatric conditions such as schizophrenia or bipolar disorder. If a patient's aggression increases or agitation escalates, seek immediate help from others, including hospital security if necessary. Your first priority is your own safety. Patient-initiated assault against health care workers does occur

SUCCESS ON THE WARDS

and can affect any member of the team, including students. In a recent study of students at a North American medical school six months following the start of clerkships, six students reported experiencing physical assaults.⁸³

Rule # 47 Caretaker fatigue is a real hazard.

During my surgery core clerkship, we were rounding with the team in the county hospital. The patient was the mother of an acquaintance. She was a middle-aged, well-spoken, dignified woman who had just undergone resection of colon cancer. She was in pain, feeling nauseous, and looked frail and uncomfortable. The three burly surgery residents proceeded to stand over her and harangue her to get out of her chair and start walking "because it's for your own good and you can't just sit there." [The dammit was understood from the tone of their voice.]

The sleep deprivation, the angry patients, the toxic colleagues, the constant vigilance due to so many potential mistakes: all are real aspects of our profession. In some cases, these severe stressors can impact students', residents', and clinicians' sense of empathy.

Empathy is one of the most important professional traits. Empathy as it relates to patient care is defined as "a cognitive attribute, which involves an understanding of the inner experiences and perspectives of the patient as a separate individual, combined with a capability to communicate this understanding to the patient."⁸⁴

Did you know ...

In telephone interviews with 192 patients cared for at the Mayo Clinic, researchers identified seven ideal physician behaviors.⁸⁵ Patients felt that the ideal physician is confident, humane, empathetic, personal, respectful, forthright, and thorough. Note that technical skills were not one of the seven ideal behaviors. The authors suggested that patients may be inclined to assume that a physician is competent.

You would assume that empathy would grow during medical school. Studies have shown that in fact the opposite occurs for many students, and that as students progress through their medical education, there is frequently a decline in empathy. Educators generally believe that this largely occurs in the clinical years of medical school. Decline in empathy is thought to be, in part, a result of the pressures and stressors of the medical school experience.⁸⁶

Be aware that a decline in empathy can occur during medical school, and look for it and guard against it in yourself. There are no evidence-based guidelines that we can reference on further measures to prevent this, but general guidelines on dealing with stress can help. There are entire books on how to deal with stress and anxiety, and there are a number of effective measures that you can take. Maintain social connections.

PATIENTS

Utilize physical activity to decrease stress. Take care of your own health. Maintain your own sense of well-being. In short, do whatever it takes so that your stress does not impact the type of care that you provide. The next rule highlights how easy it is for stress to impact professionalism.

Rule # 48 Your own sense of well-being can impact the patient care you provide.

The stressors of patient care are varied and can be severe. This absolutely affects our sense of well-being. In a recent study, residents described well-being "as a balance among multiple parts of their personal and professional lives: family, friends, physical health, mental health, spiritual health, financial security, and professional satisfaction."⁸⁷

When residents have a better sense of well-being, they report having a greater capacity to relate to patients and interact with colleagues. In fact, research has suggested that enhanced personal well-being may lead physicians to deliver more compassionate care to their patients.^{88, 89,}

⁹⁰However, physicians often don't recognize the relationship between personal well-being and care given to patients. In one survey, residents were asked to list attributes associated with professionalism. Among the 28 reported characteristics, "balance between personal and professional life" was listed last among the group.⁹¹

In one study, interviews with residents highlighted specific areas in which diminished well-being impacted professionalism.

SUCCESS ON THE WARDS

Domain	Effect on professionalism
Relationships with patients	"If you are not feeling well and completely stressed out, you don't have all the tools to deal with patients the way you should...If you are down yourself, it's difficult to give someone else strength, or help somebody to cope..."
Interactions with colleagues	"Somehow my tolerance for [my intern's] mistakes was just much, much lower...And I was very quick to point out things she missed and in a quite harsh way. I feel bad about it because when I kind of lose my balance and don't feel that well, then I just lose perception of how other people feel..."
Performance in patient care	"I think when I'm feeling good and I'm not so stressed out...I'm probably more likely to take the time to get a thorough history, do a more thorough exam, more likely to call the primary care provider, and do those things that are extra but really should be part of what you're always doing."
From Ratanawongsa N, Wright S, Carrese J. Well-being in residency: effects on relationships with patients, interactions with colleagues, performance, and motivation. <i>Patient Educ Couns</i> 2008; 72(2): 194-200.	

References

- ¹Ring D, Herndon J, Meyer G. Case records of The Massachusetts General Hospital: Case 34-2010: a 65-year-old woman with an incorrect operation on the left hand. *N Engl J Med* 2010; 363(20): 1950-7.
- ²Starfield B. Is US health really the best in the world? *JAMA* 2000; 284: 483-5.
- ³Institute of Medicine. *To Err is Human: Building a Safer Health System*. Washington, DC: National Academy Press; 2000.
- ⁴Peabody F. The care of the patient. *JAMA* 1927; 88: 877-82.
- ⁵Blendon R, DesRoches C, Brodie M, Benson J, Rosen A, Schneider E, Altman D, Zapert K, Hermann M, Steffenson A. Views of practicing physicians and the public on medical errors. *New Engl J Med* 2002; 347(24): 1933-40.
- ⁶Klein R. *Surviving your doctors: why the medical system is dangerous to your health and how to get through it alive*. Lanham, Maryland: Rowman and Littlefield Publishers; 2010.
- ⁷Pau A, Morgan J, Terlingo A. Drug allergy documentation by physicians, nurses, and medical students. *Am J Hosp Pharm* 1989; 46(3): 570-3.

PATIENTS

⁸Freyer F. Medical students get lesson in safety. *The Providence Journal*. http://www.projo.com/health/content/PATIENT_SAFETY_COURSE_05-10-10_KEIDSPU_v12.3d1634e.html. Published May 10, 2010. Accessed January 31, 2011.

⁹Madigosky W, Headrick L, Nelson K, et al. Changing and sustaining medical students' knowledge, skills, and attitudes about patient safety and medical fallibility. *Acad Med* 2006; 81: 94-101.

¹⁰Alper E, Rosenberg E, O'Brien K, Fischer M, Durning S. Patient safety education at U.S. and Canadian medical schools: results from the 2006 Clerkship Directors in Internal Medicine survey. *Acad Med* 2009; 84(12): 1672-6.

¹¹Atul Gawande. *Complications: A surgeon's notes on an imperfect science*. New York; Picador: 2002.

¹²Seiden S, Galvan C, Lamm R. Role of medical students in preventing patient harm and enhancing patient safety. *Qual Saf Health Care* 2006; 15(4): 272-6.

¹³Martinello R, Jones L, Topal J. Correlation between healthcare workers' knowledge of influenza vaccine and vaccine receipt. *Infect Control Hosp Epidemiol* 2003; 24(11): 845-7.

¹⁴Amin A, Stemkowski S, Lin J, Yang G. Thromboprophylaxis rates in US medical centers: success or failure. *J Thromb Haemost* 2007; 5(8): 1610-6.

¹⁵Sehgal N, Wachter R. Identification of inpatient DNR status: a safety hazard begging for standardization. *J Hosp Med* 2007; 2(6): 366-71.

¹⁶Prevention Plus, Home of the Braden Scale. <http://www.bradenscale.com/products.htm>. Accessed January 23, 2011.

¹⁷Lingard L, Espin S, Whyte S, Regehr G, Baker G, Reznick R, Bohnen J, Orser B, Doran D, Grober E. Communication failures in the operating room: an observational classification of recurrent types and effects. *Qual Saf Health Care* 2004; 13: 330-4.

¹⁸Fernandez H, Callahan K, Likourezos A, Leipzig R. House staff member awareness of older inpatients' risks for hazards of hospitalization. *Arch Intern Med* 2008; 168(4): 390-6.

¹⁹Saint S, Wiese J, Amory J, Bernstein M, Patel U, Zemencuk J, Bernstein S, Lipsky B, Hofer T. Are physicians aware of which of their patients have indwelling urinary catheters? *Am J Med* 2000; 109(6): 476-80.

²⁰Cohen E. *The empowered patient*. New York: Ballantine Books; 2010.

²¹Institute for Healthcare Improvement. *How-to guide: improving hand hygiene*. <http://www.ihl.org/IHI/Topics/CriticalCare/IntensiveCare/Tools/HowtoGuideImprovingHandHygiene.htm>. Accessed January 30, 2011.

²²Pittet D. Improving adherence to hand hygiene practice: a multidisciplinary approach. *Emerg Infect Dis* 2001; 7(2): 234-40.

²³Medicine's dirty little secret: hospitals promote doctors to wash their hands. *Washington Post*. September 30, 1997.

²⁴Lankford M, Zembower T, Trick W, Hacek D, Noskin G, Peterson L. Influence of role models and hospital design on the hand hygiene of healthcare workers. *Emerg Infect Dis* 2003; 9(2): 217-23.

SUCCESS ON THE WARDS

- ²⁵Treackle A, Thom K, Furuno J, Strauss S, Harris A, Perencevich E. Bacterial contamination of health care workers' white coats. *Am J Infect Control* 2009; 37(2): 101-5.
- ²⁶Loh W, Ng V, Holton J. Bacterial flora on the white coats of medical students. *J Hosp Infect* 2000; 45(1): 65-8.
- ²⁷Nurkin S. Is the clinician's necktie a potential fomite for hospital acquired infection? Presented at the 104th General Meeting of the American Society for Microbiology in New Orleans, May 23-27, 2004.
- ²⁸Ditchburn J. Should doctors wear ties? *J Hosp Infect* 2006; 63(2): 227-8.
- ²⁹The Lancet. The traditional white coat: goodbye, or au revoir? *Lancet* 2007; 370: 1102.
- ³⁰AMA Resolution 720. <http://www.ama-assn.org/ama1/pub/upload/mm/475/refcomg.pdf>. Accessed January 26, 2011.
- ³¹Singh D, Kaur H, Gardner W, et al. Bacterial contamination of hospital pagers. *Infect Control Hosp Epidemiol* 2002; 23: 274-6.
- ³²Devine J, Cooke R, Wright E. Is methicillin-resistant *Staphylococcus aureus* (MRSA) contamination of ward-based computer terminals a surrogate marker for nosocomial MRSA transmission and handwashing compliance? *J Hosp Infect*. 2001; 48: 72-5.
- ³³Gupta A, Della-Latta P, Todd B, San Gabriel P, Haas J, Wu F, Rubenstein D, Saiman L. Outbreak of extended-spectrum beta-lactamase-producing *Klebsiella pneumoniae* in a neonatal intensive care unit linked to artificial nails. *Infect control Hosp Epidemiol* 2004; 25(3): 210-5.
- ³⁴Melenhorst W, Poos H, Meesen N. Medical students need more education on hygiene behavior. *Am J Infect Control* 2009; 37(10): 868-9.
- ³⁵Marinella M, Pierson C, Chenoweth C. The stethoscope. A potential source of nosocomial infection? *Arch Intern Med* 1997; 157(7): 786-90.
- ³⁶Parmar R, Valvi C, Sira P, et al. A prospective, randomized, double-blind study of comparative efficacy of immediate versus daily cleaning of stethoscope using 66% ethyl alcohol. *Indian J Med Sci* 2004; 58: 423-30.
- ³⁷Schroeder A, Schroeder M, D'Amico F. What's growing on your stethoscope? (And what you can do about it). *J Fam Pract* 2009; 58(8): 404-9.
- ³⁸Wilkes M, Milgrom E, Hoffman J. Towards more empathic medical students: a medical student hospitalization experience. *Med Educ* 2002; 36: 528-33.
- ³⁹Rutter D, Maguire G. History-taking for medical students. *Lancet* 1976; 2 (7985): 558-60.
- ⁴⁰LSU Law Center's Medical and Public Health Law Site. <http://biotech.law.lsu.edu/books/lbb/x477.htm>. Accessed January 5, 2011.
- ⁴¹Silver-Ilsenstadt A, Ubel P. Erosion in medical students' attitudes about telling patients they are students. *J Gen Intern Med* 1999; 14(8): 481-7.
- ⁴²Santen S, Hemphill R, Spanier C, Fletcher N. "Sorry, it's my first time!" Will patients consent to medical students learning procedures? *Med Educ* 2005; 39(4): 365-9.

PATIENTS

- ⁴³Makoul G, Zick M, Green M. An evidence-based perspective on greetings in medical encounters. *Arch Intern Med* 2007; 167 (11): 1172-6.
- ⁴⁴UND Medical School students taught professionalism from day one. *Grand Forks Herald*; August 5, 2005. http://www.redorbit.com/news/education/198856/und_medical_school_students_taught_professionalism_from_day_one/. Accessed January 12, 2011.
- ⁴⁵Rehman S, Nietert P, Cope D, Kikpatrick A. What to wear today? Effect of doctor's attire on the trust and confidence of patients. *Am J Med* 2005; 118: 1279-85.
- ⁴⁶Peabody F. The care of the patient. *JAMA* 1927; 88: 877-82.
- ⁴⁷American Medical Association's Principles of Medical Ethics. <http://www.ama-assn.org/ama/pub/physician-resources/medical-ethics/code-medical-ethics/principles-medical-ethics.shtml>. Accessed January 22, 2011.
- ⁴⁸Robinson G, Aldington S, Beasley R. From medical student to junior doctor: rules of confidentiality. *StudentBMJ* 2006; 14: 377-9. <http://archive.student.bmj.com/issues/06/10/careers/377.php>. Accessed January 27, 2011.
- ⁴⁹Ubel P, Zell M, Miller D, Fischer G, Peters-Stefani D, Arnold R. Elevator talk: observational study of inappropriate comments in a public space. *Am J Med* 1995; 99(2): 190-4.
- ⁵⁰Mlinek E, Pierce J. Confidentiality and privacy breaches in a university hospital emergency department. *Acad Emerg Med* 1997; 4(12): 1142-6.
- ⁵¹Jones K. Prying in Britney Spears' medical records may cost employees' jobs. *Information Week*. March 17, 2008. <http://www.informationweek.com/news/global-cio/compliance/showArticle.jhtml?articleID=206904141>. Accessed January 30, 2011.
- ⁵²Chretien KC, Greysen S, Chretien J, Kind T. Online posting of unprofessional content by medical students. *JAMA* 2009; 302 (12): 1309-15.
- ⁵³McNamara D. Awareness of top causes of lawsuits can reduce risk. *Hospitalist News*. April 2009; 12.
- ⁵⁴Beckman H, Markakis K, Suchman A, Frankel R. The doctor-patient relationship and malpractice. *Arch Intern Med* 1994; 154(12): 1365-70.
- ⁵⁵Gladwell M. *Blink*. New York; Little Brown and Company: 2005.
- ⁵⁶Levinson W, Roter D, Mullooly J, Dull V, Frankel R. Physician-patient communication. The relationship with malpractice claims among primary care physicians and surgeons. *JAMA* 1997; 277(7): 553-9.
- ⁵⁷Ambady N, Laplante D, Nguyen T, Rosenthal R, Chaumeton N, Levinson W. Surgeons' tone of voice: a clue to malpractice history. *Surgery* 2002; 132(1): 5-9.
- ⁵⁸Rice B. Can you be forced to testify against a colleague? *Med Econ* 2004; 81: 28.
- ⁵⁹American Academy on Communication in Healthcare. <http://www.aachonline.org/>. Accessed January 23, 2011.

SUCCESS ON THE WARDS

- ⁶⁰Wiener S, Nathanson M. Physical examination. Frequently observed errors. *JAMA* 1976; 236: 852-5.
- ⁶¹Beckman H, Frankel R. The effect of physician behavior on the collection of data. *Ann Intern Med* 1984; 101(5): 692-6.
- ⁶²Marvel M, Epstein R, Flowers K, Beckman H. Soliciting the patient's agenda: have we improved? *JAMA* 1999; 281(3): 283-7.
- ⁶³Bayer-Fetzer Conference. Essential elements of communication in medical encounters: the Kalamazoo Consensus Statement. *Acad Med* 2001; 76: 390-3.
- ⁶⁴Beck R, Daughtridge R, Sloane P. Physician-patient communication in the primary care office: a systematic review. *JABFP* 2002; 15(1): 25-38.
- ⁶⁵Rutter D, Maguire G. History-taking for medical students. *Lancet* 1976; 2(7985): 558-60.
- ⁶⁶Waitzkin H. Doctor-patient communication: clinical implications of social scientific research. *JAMA* 1984; 252(17): 2441-6.
- ⁶⁷Waitzkin H. Information giving in medical care. *Journal of Health and Social Behavior* 1985; 26(2): 81-101.
- ⁶⁸Tarn D, Heritage J, Paterniti D, Hays R, Kravitz R, Wenger N. Physician communication when prescribing new medications. *Arch Intern Med* 2006; 166: 1855-62.
- ⁶⁹O'Leary K, Kulkarni N, Landler M, Jeon J, Hahn K, Englert K, Williams M. Hospitalized patients' understanding of their plan of care. *Mayo Clin Proc* 2010; 85(1): 47-52.
- ⁷⁰Makaryus A, Friedman E. Patients' understanding of their treatment plans and diagnosis at discharge. *Mayo Clin Proc* 2005; 80(8): 991-4.
- ⁷¹Deuster L, Christopher S, Donovan J, Farrell M. A method to quantify residents' jargon use during counseling of standardized patients about cancer screening. *J Gen Intern Med* 2008; 23(12): 1947-52.
- ⁷²Castro C, Wilson C, Wang F, Schillinger D. Babel babble: physicians' use of unclarified medical jargon with patients. *Am J Health Behav* 2007; 31 Suppl 1: S85-95.
- ⁷³Sherman H, McGaghie W, Unti S, Thomas J. Teaching pediatric residents how to obtain informed consent. *Acad Med* 2005; 80(10 Suppl): S10-13.
- ⁷⁴Angelos P, DaRosa D, Bentram D, Sherman H. Residents seeking informed consent: are they adequately knowledgeable? *Curr Surg* 2002; 59(1): 115-8.
- ⁷⁵Medalie J, Zyzanski S, Langa D, Stange K. The family in family practice: Is it a reality? *J Fam Pract* 1988; 46(5): 390-6.
- ⁷⁶Levine D. Communicating with chronic disease patients. Comment: A Newsletter from the Miles Council for Physician-Patient communication, 1989, 3(3), 1.
- ⁷⁷Rosenberg E, Seller R, Lanza Y. Through interpreters' eyes: comparing roles of professional and family interpreters. *Patient Educ Couns* 2008; 70(1): 87-93.
- ⁷⁸Diamond L, Schenker Y, Curry L, Bradley E, Fernandez A. Getting by: underuse of interpreters by resident physicians. *J Gen Intern Med* 2009; 24(2): 256-62.

PATIENTS

- ⁷⁹Rouf E, Chumley H, Dobbie A. Electronic health records in outpatient clinics: perspectives of third year medical students. *BMC Medical Education* 2008; 8: 13.
- ⁸⁰Morrow J, Dobbie A, Jenkins C, Long R, Mihalic A, Wagner J. First-year medical students can demonstrate EHR-specific communication skills: a control-group study. *Fam Med* 2009; 41(1): 28-33.
- ⁸¹Lown B. Difficult conversations: anger in the clinician-patient/family relationship. *Southern Medical Journal* 2007; 100(1): 34-9.
- ⁸²Walling A, Montello M, Moser S, Menikoff J, Brink M. Which patients are most challenging for second-year medical students? *Fam Med* 2004; 36(10): 710-4.
- ⁸³Waddell A, Katz M, Lofchy J, Bradley J. A pilot survey of patient-initiated assaults on medical students during clinical clerkships. *Acad Psychiatry* 2005; 29(4): 350-3.
- ⁸⁴Hojat M, Mangione S, Nasca T, Rattner S, Erdmann J, Gonnella J, Magee M. An empirical study of decline in empathy in medical school. *Med Educ* 2004; 38(9): 934-41.
- ⁸⁵Benadapudi N, Berry L, Frey K, Parish J, Rayburn W. Patients' perspectives on ideal physician behaviors. *Mayo Clin Proc* 2006; 81(3): 338-44.
- ⁸⁶Newton B, Barber L, Clardy J, Cleveland E, O'Sullivan. Is there hardening of the heart during medical school? *Acad Med* 2008; 83(3): 244-9.
- ⁸⁷Ratanawongsa N, Wright S, Carrese J. Well-being in residency: effects on relationships with patients, interactions with colleagues, performance, and motivation. *Patient Educ Couns* 2008; 72(2): 194-200.
- ⁸⁸Shanafelt T, Sloan J, Habermann T. The well-being of physicians. *Am J Med* 2003; 114: 513-9.
- ⁸⁹Shanafelt T, West C, Zhao X, Novotny P, Kolars J, Habermann T, Sloan J. Relationship between increased personal well-being and enhanced empathy among internal medicine residents. *J Gen Intern Med* 2005; 20: 559-64.
- ⁹⁰Thomas M, Dyrbye L, Huntington J, Lawson K, Novotny P, Sloan J, Shanafelt T. How do distress and well-being relate to medical student empathy? A multicenter study. *J Gen Intern Med* 2007; 22: 177-83.
- ⁹¹Brownell A, Cote L. Senior residents' views on the meaning of professionalism and how they learn about it. *Acad Med* 2001; 76: 734-7.

