

Open School

Case Study: (AHRQ) Low on the Totem Pole

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Case Study from [AHRQ WebM&M](#)

Learning Objectives: At the end of this activity, you will be able to:

- Explain the concept of authority gradient.
- List steps that can be taken to increase communication across an authority gradient.
- Evaluate the current culture of safety in your own institution.

Description

A medical student notices that, prior to surgery, a urinary catheter is inserted into a child without sterile prep. Being new to the OR setting, he says nothing until a few days later on rounds when the patient shows signs of infection.

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- [PS 106: Introduction to Culture of Safety](#)
- [PS 201: Partnering to Heal: Teaming Up Against Healthcare-Associated Infections](#)
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Key Topics

Pediatrics, communication, teamwork, adverse event, culture of safety, infection – healthcare-associated, urinary tract infection – catheter-associated, surgical infection prevention, surgical safety.

Case & Commentary: Part 1

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A fourth-year medical student on rotation in the pediatric intensive care unit (PICU) was invited to observe the operative repair of a congenital heart lesion in the pediatric cardiac surgery operating

room (OR). When the student arrived in the OR, the patient was already intubated and anesthetized, and procedures were under way to prep the patient for surgery. The student observed one of the team members insert a Foley catheter into the female patient. He was surprised to see that no efforts were made to perform “sterile prep” prior to insertion. However, being new to this setting and assuming different practices were used in pediatric patients, the student dismissed the incident and did not mention it to anyone in the OR.

In a previous issue of AHRQ WebM&M, a senior medical student thoughtfully discussed the pressures students feel when they witness an error and struggle with the questions of whether and how to bring up the issue [See related commentary]. Since I completed medical school soon after Watergate, I won't attempt to remember how students feel when put in such a position. I will, however, use this case to discuss the concept of authority gradients and how they relate to creating a culture of safety.

Health care is remarkable for its interdependencies across personnel. Think of this PICU. There, highly trained neonatologists and surgeons work side-by-side with, and are often dependent on, fellows, residents, and students. These medical personnel are exceptionally important to the care of patients. But equally important, and often more important, is a virtual army of nurses, respiratory therapists, clinical pharmacists, and clerks. These individuals play a vital role in ensuring the quality and safety of care; each may be the one to witness an error in the making, and each must share in the ever-changing flow of information—everything from the patient's creatinine level to the concerns of the patient's family. It is difficult to think of another workplace where such a diverse group of people work so closely together and are so dependent on each other to create positive outcomes.

In all of this, the medical student occupies a particularly challenging position. Status in such workplaces comes because one is either *an authority*, *in authority*, or both. He is neither. In fact, the usual hierarchy in the medical workplace, with physicians at the top of the heap, is set on its head: within moments, the savvy student recognizes that the ICU nurse has far more setting-specific knowledge than he, often more than senior physicians. During my first day of internship, one of my colleagues taught me this lesson quite vividly. Admitting a complex patient with an acute myocardial infarction and heart failure, he failed to prescribe a certain indicated medication to the patient. On rounds the next morning, the attending, a senior and highly revered teacher, gently asked him why he failed to begin the medicine. Bleary eyed, he murmured, “Well, the nurse didn't suggest it.” I admired his honesty.

In witnessing a practice that he thought might be unsafe and not knowing what to do with his concerns, the student thus faces a predicament. Coupled with his feeling that his worries might be unfounded (maybe this procedure doesn't require aseptic technique) is the massive authority

gradient: he is about as low on the totem pole as one can get in that ICU, and, unless this issue has been addressed proactively, he is unlikely to raise his concerns.

How could this be done? It might be as simple as giving all students a primer on using the hospital's incident reporting system or having the clerkship director or attending state at orientation, "You're likely to see some things during this rotation that you're not sure about. Sometimes, you'll wonder whether a given practice is in error or is putting the patient at risk. I want you to page me if you see such a thing, and we'll talk it through. I know that's hard—I remember what it felt like to be in your position, wondering whether you knew enough to be sure that what you were seeing was wrong, and what would happen if you raised an alarm. But you're in a unique position to catch things—you have the time to observe things that I don't, and you bring a fresh set of eyes and ears. So please, let me know if you have any questions or concerns."

Note that, even if he is given a protocol for reporting errors and safety concerns but perceives that the culture is not supportive of such action, he is unlikely to come forward. As business consultants like to say, "Culture eats strategy for lunch."

Discussion Questions

1. Some quick polls (these can stimulate discussions based on what is being done poorly):
 - How many of you have reported an incident? Or wished you had?
 - How many of you know how to report an incident?
 - How many of you feel supported by your clerkship directors / team members in pointing out possible errors?
2. Can you think of ways that students can support each other in reporting errors in real-time?
 - Would any of these work?
 - Recognition awards
 - A new kind of oath for the clerkships (i.e., an honor code)

Case & Commentary: Part 2

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The student followed the patient during her PICU course. On postoperative day 3, the student found that the patient had been febrile overnight and a urine culture had grown Pseudomonas aeruginosa. On rounds, the student presented this new data, including the account of the Foley placement in the

OR. The patient's Foley catheter was discontinued and appropriate antibiotic coverage provided. Subsequent urine cultures were negative. After rounds, the student was approached by two attendings, separately. One remarked that the information about the catheter should not have been presented on rounds due to concerns that patients and family members might overhear. The second attending told the student this information should have been conveyed at the time of the incident. Neither attending commended the student for reporting the incident to the team. Shortly thereafter, the student submitted a report outlining the events in the OR to the institutional patient safety office.

Sexton and colleagues surveyed operating room personnel, asking whether they perceived teamwork as being strong.⁽¹⁾ The results are shown in the Below Figure. Note that nearly 80% of attending surgeons, clearly atop the authority chain, perceived teamwork to be strong, while only 10% of anesthesia residents, at the bottom, felt the same way (proving, as always, that one should virtually never ask the leader to assess the quality of teamwork). One can only assume that students' perceptions would have been even worse.

Perhaps more germane to the patient safety question, Sexton asked both surgeons and commercial airline pilots whether they would want someone to question them if they thought they were doing something wrong. Virtually every pilot answered in the affirmative. A generation ago, aviation learned the lesson from several horrible accidents that tragedy can often be averted when everyone feels comfortable raising their concerns to the pilot, and the pilots welcome these questions.⁽²⁾ Crew Resource Management (CRM) programs, implemented since the early 1980s, encourage this kind of cross talk, focusing in part on encouraging everyone to speak up if they have concerns. In the exercises, pilots learn that the messages that they send—spoken or unspoken—when someone does question their action indelibly cements the culture. If a pilot snaps, or even subconsciously assumes a disdainful facial expression, when a junior colleague raises a concern, the likelihood that similar concerns will be raised in the future plummets.

Unfortunately, when Sexton asked surgeons the same question, nearly half said that they would not want their coworkers to raise safety concerns during surgery.⁽¹⁾ The message to those lower on the authority gradient (namely, everyone) is unmistakable: speak only at your own risk. This is certainly the message this student received from the first attending when he finally spoke up on rounds. Perhaps the second attending meant to be supportive, but by failing to acknowledge the student's position and predicament, she may have implied that the student had handled this poorly. The student's actions could have been simultaneously applauded and gently critiqued had the attending simply said, "I really appreciate you bringing this concern up. I know it's really hard to do. In the future, if you see something like that happening, please come right to me. It's the only way we can keep our patients safe."

How can we establish a culture in which individuals feel comfortable breaching authority gradients to raise safety concerns? First, there has to be a clear protocol for reporting: it does little good to

establish culture if the workers don't understand the practical aspects of reporting. Second, evidence is accumulating that specific teamwork training, modeled on CRM, can help establish the desirable climate among the rank-and-file workers.(3) My colleagues and I (physicians, nurses, and pharmacists) recently received a grant from the Gordon and Betty Moore Foundation to begin such a program at UCSF (along with Kaiser Permanente Hospital in San Francisco and El Camino Hospital), using actual commercial airline pilots to help conduct the training.

Finally, an unmistakable message needs to be set by senior leadership about the necessity and moral imperative to "stop the presses" when someone witnesses a possible error or breach in a safety protocol. Because of the massive production pressure, health care workers feel uncomfortable raising an alarm when they merely suspect, but are not sure, that something is wrong. Rather than risking a false alarm and its accompanying stigma, they have learned to say, "Oh, it's probably okay, " and let it slide. We have documented one case in which this dynamic helped lead to a patient's cardiac resuscitation being aborted in error (4), and another in which a patient received an invasive cardiac procedure intended for another patient.(5)

In fact, I have come to believe that this issue is at the core of an institution's safety culture. There are a number of superb, validated tools to measure the institutional culture of safety.(6-8) They provide a very important snapshot across a number of dimensions, and I strongly encourage their use. My test, however, is much simpler.

Consider the lowest person in the hierarchy of a hospital, perhaps a young ward clerk (it could just as easily be a medical or nursing student). He or she witnesses something that seems wrong—perhaps the OR is calling for a patient but there is no consent in the chart. The patient's surgeon is the chief of cardiac or neurosurgery, a highly respected and prominent surgeon. He is known to have a bit of a temper. In fact, he has been known to throw things in the OR, and let's say he has good aim.

The clerk knows that making herself 100% sure that the OR is calling for the right patient will take a couple of telephone calls, and so might delay the start of the case by 10 minutes. She sees that the day's OR schedule is jam-packed. But, even after weighing all that, her primary concern is for the patient's safety, and she decides to confirm that everything is right. And it is. It was just a paperwork snafu, and the patient really was supposed to go to surgery. Ten minutes later, she releases the patient to the transporter.

So here is the question: what happens to the clerk? Do her colleagues snicker at her, whispering just out of earshot during coffee breaks, while the surgical residents cut her an "Oh, she's the one" look on rounds later that day? Or does the hospital CEO (and the surgeon) take a moment to pat her on the back, making it clear that gutsy acts like hers—stopping the presses when you're not sure everything is right, rather than doing so only when you're absolutely sure they are wrong—are precisely what must be done to ensure patient safety?

I recently posed this test to an audience of 1,000 at the National Patient Safety Foundation's annual conference in Orlando, asking how many worked in institutions that would pass my test. About five hands went up. We have a long way to go.

The medical student in this case is to be commended for raising his concerns. Creating a culture in which he was comfortable doing so *in real time*—as the procedure was being carried out and his concerns materialized—is the hard work we face. This will take leadership, new training programs, and specific reporting protocols. Until we take up this work and find the resources to support it, we will lack a culture of safety, and patients will be harmed unnecessarily.

Discussion Questions

1. Imagine you are the surgery attending. How would you respond to the questions, “Do you want all team-members to raise safety concerns during surgery?” and “How would you prefer them to raise safety concerns?”
2. What do you think is a valid way to assess how well a team is working?
 - Is the lowest on the totem pole the correct person to ask? The leader?
 - Would objective measures of goals tell you?
3. Have you ever seen any tools in your hospital that measured safety? What are those tools, and how effective do you think they were?

Disclosure

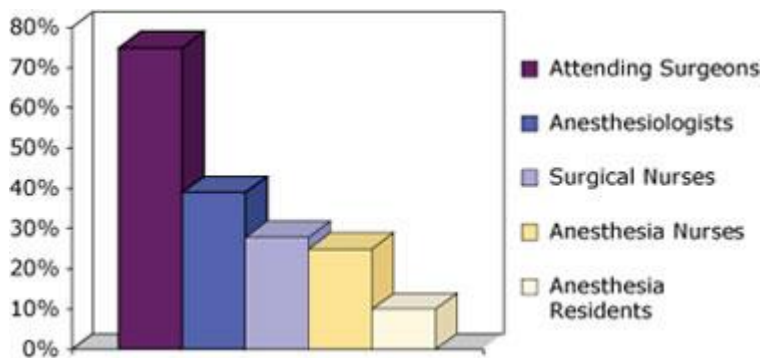
Dr. Wachter has declared that neither he, nor any immediate member of his family, has a financial arrangement or other relationship with the manufacturers of any commercial products discussed in this continuing medical education activity. In addition, his commentary does not include information regarding investigational or off-label use of pharmaceutical products or medical devices.

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Figure 1. Teamwork Level Rated as “High”



Discussion Questions

1. Can you describe the hierarchy in a medical service in which you have worked?
 - What is this hierarchy based on?
 - Status / rank?
 - Education
 - Experience
 - Money
 - Is this the best way to structure teams of people in health care? What are some alternatives?
 - Is position the same as function?
 - Should certain functions have more control?

- Are there lessons to be learned from other organizations? Sports Teams? Military? Business? (focus on particular niches and not generalizations)
2. Name one thing you are going to do if you are in a situation like the one presented in this case.

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