

Virtual Mentor

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POLICY FORUM

Encouraging Teamwork to Decrease Surgical Complications

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Much work has been done and reported concerning safety in the operating room, and many of those reports identify potential dangers. And yet, adverse incidents and bad outcomes due to communication errors continue to occur in all centers. Why? Do surgeons really believe it can't happen to them? Do they think it's everyone else's problem? Do they believe they can just *think* "safety," and safety will happen?

For the past 6 years, we at Johns Hopkins have focused on operating room safety. We began with a presurgery "time out" and expanded that to a "briefing." At the beginning of the retraining, we closed the operating rooms for 4 hours and mandated that all members of the teams—surgeons, nurses, and anesthesiologists—attend classes by aviation industry experts who taught us about checklists and made us realize the importance of communication between the members of the team. The main purpose of briefings is to enhance this communication among operating room team members. Prior to identifying the patient and the procedure and gathering the equipment and other needed items such as implants, each member of the team introduces him or herself to the others and states his or her role. The person's name and role is then written on an electronic board in the room that can be updated in real time and is easy to read.

Introduction of the briefing session is a cultural change, a process that most change management consultants say takes 7 years, on average, to happen. Apparently that's how long it takes for people to forget that they ever did things any other way. Our medical students and residents, of course, will know no other way; they will be the leaders in communication in the operating room and on the inpatient floor. They understand the process of hand-offs, for example, whereas older surgeons tend to "cover" their patients even when they are not in the hospital and sometimes not even in the city, state, or country. When those surgeons were trained, it was a sign of weakness not to be available at all times.

We have also developed a debriefing process at the end of the case where nurses, anesthesiologists, and surgeons are asked what could have been done better. Were all the instruments available? Did they all work? Was the patient adequately prepared? Then the transition to the next level of care is discussed. Will the patient go to the intensive care unit, the floor, or home? What medications will they need? What are the concerns of each of the health care deliverers in the room? Has the family been updated and where are they?

Debriefing is toughest when the case did not go well or the patient is not doing well. The focus then must be on the patient's transition to the next level of care. If there is a mishap or miscommunication—a piece of equipment not working, unanticipated blood loss, lack of experience in the nursing team—those things are difficult to discuss in the heat of the moment. Regrouping hours to days later, prior to the next case, with that surgeon and team is key to making sure that things will go better the next time.

Despite our focus on briefing and debriefing, we still wonder whether the quality of these activities is uniformly excellent in each and every room. When we talk to the nurses who circulate in many ORs and see many versions of the process, we hear that inadequate attention is paid to the process by some teams. We have made a video for teaching medical students, residents, and new staff, and we have shared the video with other institutions. We are now going to have observers in some operating rooms watching the briefing and debriefing sessions and adherence to sterile technique. In other rooms, we are going to use video cameras to record the briefings and debriefings so that we can review the activity afterwards and use our reviews as a teaching tool. We also think that, if our team members know we are watching, perhaps they will raise the bar a bit and do an even better job.

Communication problems are the source of more than 70 percent of the errors that occur in the operating room and intensive care unit. With the need to work around the hours that the surgery residents are restricted to, hand-offs need to be done in a standard manner. Our interns wrote a paper identifying the 10 most important components of surgery hand-offs. Changing the culture demands involvement of the new generation, so we had them publish the guidelines themselves.

The Future for Safety in Surgery

Improvements in OR safety should involve patients, too. Patients now know that they should have their operation site marked, that they should receive antibiotics, and that we should wash our hands before examining them. They should realize that having the best available surgeon and team is critical. They should know more about expected outcomes of their surgeries, short and long term. They should take responsibility for their preoperative care—exercising, stopping smoking, losing weight, and knowing their medications, even those they buy over the counter—and comply with pre-operative instructions.

Surgeons also need to do more. They need to be more transparent with their patients by telling them about all options for their care, including not having surgery. They need to communicate well and often through appointments, telephone calls, e-mails, and texting. The world has changed, and so should the way we communicate with our patients. All nonurgent communication can be dealt with electronically. In my experience, it is a rare patient who abuses or overuses this method of communication. We must have others—nurse practitioners, physician assistants—help us to communicate. Printed materials and Web sites can also be useful sources of information for our patients and their families, answering commonly asked

questions. Many of us have been surgery patients or have had a loved one who has been. These experiences make us better surgeons. Safety is up to all of us.

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Further Reading

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