Can’t we put an end to wrong-site surgeries?
By Jeffrey Varnell, MD, and Dennis Boyle, MD

Patient safety processes require your commitment to work

“Dr. Washington,” a prominent Denver orthopaedic surgeon, recently performed an anterior cruciate ligament (ACL) repair on the right knee of a University of Denver football player. Initially, however, he opened the patient’s left knee. He quickly realized his error, closed the incision, and proceeded to perform a successful ACL repair on the correct (right) knee. After a difficult discussion with the player’s family, Dr. Washington called his medical liability insurance company’s risk management department and had the following discussion with a risk manager:

Risk Manager: “Did you mark the right knee as we recommend?”
Dr. Washington: “Yes.”

Risk Manager: “Did you check for the mark during your time-out?”
Dr. Washington: “No; I assumed that it was washed off by the Betadine.”

Wrong-site surgeries
Although fictional, this case study highlights a key facet of patient safety in orthopaedics. The preoperative time-out became a universal occurrence in the United States after it was required by the Joint Commission and other safety organizations in 2002. Following the introduction of the time-out, wrong-side surgery reports by Colorado physicians insured by COPIC Insurance Company rose from four in a year to 16—a surprising result. Similarly, in Florida, 178 wrong-site, 82 wrong-procedure and 34 wrong-patient surgeries were reported in the years 2000-2003.

Wrong-side surgeries are difficult, if not impossible, to defend. They are considered res ipsa loquitur (the ad speaks for itself) or prima facie (at first view) malpractice and are included as one of the “never events” defined by the National Quality Forum. This article explores how such events occur, what we know about their etiology, and what can be done to decrease them.

Why do they continue to occur?
Possible reasons for continued wrong-side surgeries include the following:

• Increased awareness and reporting
Introduction of a new process into an established system

A lack of respect for the time-out by the surgeons and team involved in the surgery, resulting in a ritual time-out that is forced and not valued

Recently Philip Stahel, MD, and colleagues conducted a study on surgical patient safety at Denver Health and Medical Center. To find answers for reducing errors in the operating room (OR) setting, they analyzed a range of literature and closed-claim data from the American College of Surgeons and COPIC Insurance Company. They found that approximately 25 percent of surgical claims stemmed from perioperative communication issues, and 90 percent of these appeared to be verbal breakdowns—either information transmitted incorrectly or not at all.

Despite the institution of the surgical time-outs, Colorado physicians still reported 99 cases of wrong-site surgery and 20 cases of wrong-patient surgery in the years 2002-2007.

What can we do?

In 1999, the Institute of Medicine authored the landmark report *To Err Is Human*. Since then, there has been a concerted effort to increase awareness of the issue and to decrease medical errors. What is apparent is that no matter how hard we try, humans will always make mistakes.

Wrong-side surgery is a classic example of a system problem. The cure is not in the “shame-and-blame” culture that we trained in, but in developing systems that will prevent and decrease errors. This means not blaming individuals who are involved in patient care, but rather asking for and valuing their input in making care better.

The following three suggestions have been proposed as ways to reduce the number of wrong-site surgeries:

- Standardized pre- and postoperative communication handoffs between medical consultants, surgeons, and anesthesia and nursing staff, combined with formal “read backs” and supported by written checklists and protocols
- Surgeon-led standardized surgical time-outs for all cases
- Systematic error reporting and real-time (weekly) peer-reviewed analysis of all complications, “near misses,” and “no harm” events

The World Health Organization has recommended following a surgical safety checklist in all cases (*Fig. 1*). In each phase, a checklist coordinator must confirm that the surgery team has completed the listed tasks before it proceeds with the operation.

Team training programs have incorporated these principles into their recommendations and expanded them to include a “briefing” done before each procedure. This ensures that all team members are aware of the unique aspects of the patient who is about to undergo the procedure, what equipment will be needed, and what contingencies should be made in case of unexpected findings.

Communication tips

Many errors occur in team settings, underscoring the need for complete and standardized ways of communicating with each other. One example is the Situation-Background-Assessment-Recommendation (SBAR) communication tool developed by

SBAR is useful in fostering conversation in hierarchical and time-sensitive situations (such as nurse to doctor) and allows for clear communications around expectations. For example, the nurse might say: “You will see the patient now, won’t you?”

Another approach is open invitation and questioning of members of your team: “Please speak up if you see anything that we could do better as a team.” “How did that go today? Were there pebbles in anybody’s shoes?”

Huddles should not be limited to the hospital wards but should be used for the office and the OR as well. Observing these behaviors in the OR—and applying them in a consistent and systematic fashion—have been correlated with decreased postoperative complications as well as decreased turnover of key personnel and improved employee and patient satisfaction.

We strongly recommend a standardized approach to the time-out. Unexplained clinical variation in this instance is not creativity, just an invitation to error. If Tiger Woods approaches a difficult shot the same way each time, should we not learn from his example?

No system will be successful, however, without the proper attitude and commitment at the top levels of an organization. This means the surgeon and his or her colleagues must be committed to creating a “culture of safety” in the operating rooms. Such an atmosphere values input from all team members, mocks, or belittles no one, and models an open attitude that allows anyone (including the patient) to give input into care and the clinical situation.

Finally, we should analyze events in a scientific fashion to improve the systems in which we work, doggedly addressing each error whether there is resultant patient harm or not.

Jeffrey Varnell, MD, and Dennis Boyle, MD, are physician risk managers for COPIC Insurance Company, headquartered in Denver.

References:
