The Pain of Wrong Site Surgery

By Sandra G. Boodman, June 20, 2011

When the president of the Joint Commission, the Chicago-based group that accredits the nation’s hospitals, unveiled mandatory rules to prevent operations on the wrong patient or body part, he did not mince words.

“This is not quite ‘Dick and Jane,’ but it’s pretty close,” surgeon Dennis O’Leary declared in a 2004 interview about the “universal protocol” to prevent wrong-site surgery. These rules require preoperative verification of important details, marking of the surgical site and a timeout to confirm everything just before the procedure starts.

Mistakes such as amputating the wrong leg, performing the wrong operation or removing a kidney from the wrong patient can often be prevented by what O’Leary called “very simple stuff”: ensuring that an X-ray isn’t flipped and that the right patient is on the table, for example. Such errors are considered so egregious and avoidable that they are classified as “never events” because they should never happen.

But seven years later, some researchers and patient safety experts say the problem of wrong-site surgery has not improved and may be getting worse, although spotty reporting makes conclusions difficult. Based on state data, Joint Commission officials estimate that wrong-site surgery occurs 40 times a week in U.S. hospitals and clinics. Last year 93 cases were reported to the accrediting organization, compared with 49 in 2004. Reporting to the commission is voluntary and confidential — to encourage doctors and hospitals to come forward and to make improvements, officials say. About half the states, including Virginia, do not require reporting. In two states that track and intensively study these errors, 48 cases were reported in Minnesota last year, up from 44 in 2009; Pennsylvania has averaged about 64 cases for the past few years.
Attention to the problem comes at a time of increased focus on the broader issue of medical errors, which a recent Health Affairs study found affected one-third of hospital patients. The federal government recently rolled out its Partnership for Patients program aimed at reducing medical mistakes. Medicare requires reporting and does not pay for wrong-site surgery, and many insurers have followed suit. Medicaid has announced a similar policy, to take effect next year.

What seemed pretty straightforward in 2004 now seems more complicated. “I’d argue that this really is rocket science,” said Mark Chassin, a former New York state health commissioner and since 2008 president of the Joint Commission, which has issued refinements to the 2004 directive. Chassin said he thinks such errors are growing in part because of increased time pressures. Preventing wrong-site surgery also “turns out to be more complicated to eradicate than anybody thought,” he said, because it involves changing the culture of hospitals and getting doctors — who typically prize their autonomy, resist checklists and underestimate their propensity for error — to follow standardized procedures and work in teams.

“It’s disheartening that we haven’t moved the needle on this,” said Peter Pronovost, a prominent safety expert and medical director of the Johns Hopkins Center for Innovation in Quality Patient Care. “I think we made national policy with a relatively superficial understanding of the problem.” Pronovost suggests that doctors’ lip service to the rules, which he calls “ritualized compliance,” may be a key factor. Studies of wrong-site errors have consistently revealed a failure by physicians to participate in a timeout.

Some recent cases: In April an ophthalmologist in Portland, Ore., operated on the wrong eye of a 4-year-old boy. In December 2010, Beth Israel Deaconess Medical Center in Boston reported that neurosurgeons had performed three wrong-site spinal surgeries in a two-month period. And after five wrong-site operations in less than three years, state officials in 2009 ordered that video cameras be installed in the operating rooms of Rhode Island Hospital in Providence, which was fined $150,000.

Wrong-site mistakes have multiple causes, experts say: mixing up the left and right sides; operating on a patient who was accidentally given test results belonging to someone else; marking the incorrect vertebrae in spinal surgery; neglecting to mark the site at all. Some occur even though a member of the surgical team thinks something might be wrong but fails to speak up, fearful of slowing the process or challenging the surgeon in charge.
Reported cases are “clearly the tip of the iceberg,” said Philip F. Stahel, director of orthopedic surgery at Denver Health Medical Center.

Stahel was lead author of a 2010 study of 132 wrong-site and wrong-patient cases reported by doctors to a large malpractice insurer in Colorado between 2002 and 2008, one-third of which resulted in death or serious injury. Among them were three men who underwent prostate cancer surgery although they were cancer-free. In 72 percent of cases there was no timeout.

Stahel says many doctors resent the rules, even though orthopedists have a 25 percent chance of making a wrong-site error during their career, according to the American Academy of Orthopaedic Surgeons, which launched a voluntary “Sign Your Site” campaign in 1997.

“It’s very frustrating,” said surgeon John Clarke, clinical director of the Pennsylvania Patient Safety Authority. “If you can’t solve the wrong-site-surgery problem, what can you solve?”

Ritualized compliance

The legal system typically offers little recourse: One study found that only a third of wrong-site cases result in a malpractice suit. Stahel’s team found that the average payment was less than $81,000 in cases resulting in a lawsuit and $47,000 in those resolved without legal action.

While some wrong-site errors inflict little or no injury, either because they are corrected early or did not involve major surgery, others are devastating. Last year a jury returned a $20 million negligence verdict against Arkansas Children’s Hospital for surgery on the wrong side of the brain of a 15-year-old boy who was left psychotic and severely brain-damaged. Testimony showed that the error was not disclosed to his parents for more than a year. The hospital issued a statement saying it deeply regretted the error and had “redoubled our efforts to prevent” a recurrence.

“I felt violated,” said Lexie Fincher, 39, of Fredericksburg, whose Virginia surgeon in 2008 failed to mark the site of a benign tumor, then misinterpreted her MRI scan and operated on the wrong part of her shoulder, causing continued pain and leaving a scar. “It was absolutely avoidable.”

Clarke said researchers have discovered that the way a timeout is done and where it is performed make a difference, details that the protocol initially did not specify.
Doctors who verify the site and procedure with patients before they are wheeled into surgery are less likely to make a mistake, as are those who explicitly ask everyone on the team to speak up if they have concerns. “There’s a big difference between hospitals that take care of patients and those that take care of doctors,” Clarke said. “The staff needs to believe the hospital will back them against even the biggest surgeon.”

‘They will all die’

Many experts say that medicine needs standardized rules similar to those in aviation, which bar takeoff until a pilot and co-pilot complete a prescribed checklist without interruption. Airlines have a vested interest in a culture of safety that Stahel says medicine lacks. In surgery “sometimes people say, ‘Well, this isn’t quite right, but someone else will address it.’ In aviation they don’t do that, because the plane will crash and they will all die,” he said.

“Health care has far too little accountability for results. . . . All the pressures are on the side of production; that’s how you get paid,” said Hopkins’s Pronovost, who adds that increased pressure to turn over operating rooms quickly has trumped patient safety, increasing the chance of error.

Kenneth W. Kizer, who coined the term “never event” nearly a decade ago when he headed the National Quality Forum, a leading patient safety organization, said he believes reducing the number of errors will require tougher reporting rules and increased transparency. Kizer, California’s former chief health officer, advocates mandatory reporting of wrong-site errors to a federal agency so cases can be investigated and the results publicly reported.

“How can you say these things should not be reported?” asked Kizer, director of the Institute for Population Health Improvement at the University of California at Davis. “These are the health-care equivalent” of plane crashes.

Shepard Hurwitz, director of the American Board of Orthopaedic Surgery, said he believes withholding payment for errors may prod hospitals fearful of offending their medical staffs to enforce safety rules and take action against recalcitrant doctors. “I think before it was thought to be the cost of doing business,” Hurwitz said. “I think the first time it happens, the person should be taken out of circulation until they understand what they did wrong. And if it happens again, they’re finished.”

One surgeon’s mea culpa
Hand surgeon David C. Ring was in his office at Massachusetts General Hospital dictating notes when the sickening realization hit him: The carpal tunnel release he had just completed was the wrong surgery.

“It was the worst feeling of my life: The ground literally falls beneath you,” Ring recalled in an interview. He returned to the operating room and informed the staff, then apologized to the 65-year-old patient, who spoke only Spanish and agreed to let him perform the correct surgery, a trigger finger release.

Several factors contributed to Ring’s mistake, which he wrote about last year in the New England Journal of Medicine; chief among them was the failure to perform a timeout because of various distractions.

The patient did not file a lawsuit, and Ring said the hospital paid her a modest amount in compensation. As a result of the case, safety monitors were assigned to the hospital’s operating rooms, and nurses were instructed not to hand the knife to the surgeon until the timeout is completed.

“I was an advocate before, but now I really believe in safety systems,” said Ring, who speaks to medical groups and says he still “tears up” when discussing the error. “I don’t want any patient or doctor to feel like I felt.”

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