Wrong-side, wrong-site, wrong-procedure, and wrong-patient errors may be more than twice as common as generally accepted or reported in the literature—and there’s little evidence that current prevention methods are enough, according to a study in the September Archives of Surgery.

The authors estimate the annual incidence of wrong surgery in the US at 1,300 to 2,700 out of more than 75 million surgical procedures. This is more than 5 to 10 times greater than the error rate accepted by industry’s quality-defect standard Six Sigma, the authors note.

They base their estimates on data from 4 sources: the National Practitioner Data Bank, Florida’s mandatory reporting system, the American Society of Anesthesiologists’ Closed Claims database, and an anonymous website reporting tool hosted by the authors (www.wrong-side.org).

**Contributing factors**

The health care system isn’t set up to prevent these errors, say the researchers from the University of Chicago and the University of Miami. Among factors they identified that lead to wrong surgery:

- **procedure factors**
  - similar or same procedures back to back in the same room
  - failure of existing safety checks, such as not cross-checking for consistency in the consent form, patient chart, or OR scheduling form
  - wrong side of patient prepped and draped
- **human factors**
  - breakdowns in communication and teamwork
  - fatigue
  - inexperience
- **patient factors**
  - similarity of patient names
  - patient ignorance or confusion about the procedure
  - patient not consulted before sedation or block is administered.

**Prevention inadequate**

These events are totally preventable, the researchers say, but prevention depends on the clinician’s ability and willingness to use prevention mechanisms:

- Despite extensive promotion by the American Academy of Orthopaedic Surgeons (AAOS) of a site-marking policy since 1997, only 70% of orthopedic hand surgeons are aware of the policy, and only 45% of those have changed their habits as a result of the policy.
- Patients’ involvement in marking their own operative site is low.
- Errors are still occurring despite use of the universal protocol for prevention of wrong surgery from the Joint Commission on Accreditation of Healthcare Organizations (JCAHO).

The time-out required by JCAHO is “a step in the right direction” but fails to address the complexity of these incidents, the authors say. “The time-out policy falls short in addressing health care challenges such as unavailable equipment, varying roles, and unavailability of team members.”
A call for reporting

“We don’t know enough about these errors,” the lead author, Samuel C. Seiden, MD, told OR Manager.

He compared the problem to errors in transfusion medicine, noting there are about 2,000 studies on safety measures for preventing transfusion errors.

In contrast, there are only about 10 reports on wrong surgery.

“We don’t have nearly the understanding we need,” he said.

He and his coauthor, Paul Barach, MD, MPH, call for reporting of all errors—those that result in harm as well as near misses—to develop a culture like those that improved safety in transfusion medicine, aviation, and nuclear power.

Such a change will require an environment that allows providers to feel safe reporting without retribution, stigma, and shame, they say. ✝