Quarterly Update on the Preventing Wrong-Site Surgery Project

A revised graph of the number of reports of wrong-site surgery events by quarter has been extended to include data through the second quarter of 2008 and updated on the Pennsylvania Patient Safety Authority's Web site (see Figure).* Increased numbers for previous quarters are the result of belated reports. The marked volatility, from 16 to 24 to 11 to 21 reports per quarter, indicates the lack of systems; systems produce reproducible results. Of interest, approximately 38% are reports of wrong-site injections.

The indemnity for claims paid by physician insurers for wrong-site surgery is impressive, although the likelihood of a paid claim is small. Based on information from the Physician Insurers Association of America,[1] of 487 claims related to wrong-site surgery reported over 10 years (1998 to 2007), oral surgeons were collectively the least likely to have or pay a claim against them; orthopedic surgeons were collectively the most likely (see Table 1).

Adjusting all paid claims to 2008 dollars, the overall average indemnity paid for a claim of wrong-site surgery was $146,201 (see Table 2), with the highest average indemnity paid by neurosurgeons at $425,677 and the second highest by urologists at $306,460.[1] According to Mody et al., spinal surgeons, which include neurosurgeons, are also the most likely to perform wrong-site surgery. Mody et al. found that 50% of all spinal surgeons reported performing wrong-site surgery during their careers.[2]

Interestingly, only 62% of claims were paid. Kwaan et al. estimated that a (nonspinal) wrong-site surgery was reported to a malpractice insurer for every 112,994 operations.[3] Making some rough assumptions, such as reports to a malpractice insurer are equivalent to claims, a surgeon performing surgery other than spinal surgery would pay a claim for wrong-site surgery approximately every 182,000 operations. At an amortized cost of less than one dollar per operation, combined with the time needed for a surgeon to properly follow the Joint Commission's Universal Protocol described in the June 2008 *Pennsylvania Patient Safety Advisory*,[4] the rationale for taking the time to prevent this rare event is ethical, not economic. As mentioned in the June 2008 *Advisory*,[4] in order to maximize compliance, facilities should work with surgeons to develop processes that minimize the time needed for the surgeon to *properly* follow the Universal Protocol.

Standardized, detailed wrong-site surgery reports have now been submitted by cooperating facilities for a year in follow-up to reports of both near-miss and actual wrong-site events. This prospective comparison of near-miss to actual wrong-site events has been closed as of the end of August. The December 2008 *Advisory* will include the final report on the results of comparing the processes that were and were not significantly associated with trapping the error before harm occurred.

Figure. PA-PSRS Wrong-Site Surgery Reports by Quarter

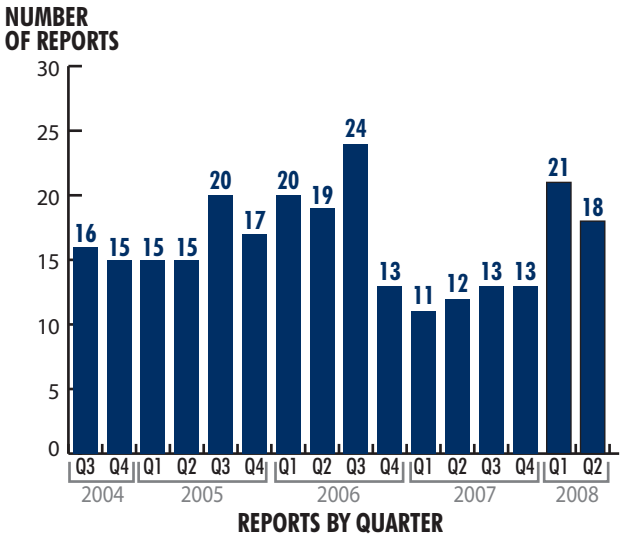

Table 1. Relative Ratios of Claims and Paid Claims by Specialties, Compared to the Specialty with the Collective Minimum Number

SPECIALTY	RATIO CLAIMS (CLOSED)	RATIO PAID CLAIMS
Oral surgery (baseline for each column)	1	1
Otorhinolaryngology	4	5
Anesthesiology	7	5
Ophthalmology	7	11
Plastic surgery	9	14
Cardiovascular and thoracic surgery	17	14
Urologic surgery	12.5	15
Obstetric and gynecologic surgery	14	17
General and colorectal surgery	43.5	57
Neurosurgery	40	60
Orthopedic surgery	88.5	126

Source: Special request, wrong patient—ECRI Institute: wrong patient or wrong body part by specialty and year, 2008, Physician Insurers Association of America.

* The Pennsylvania Patient Safety Authority maintains an online collection of articles, educational resources, and data pertaining to wrong-site surgery. This collection, titled "Preventing Wrong-Site Surgery," is available at http://www.psa.state.pa.us/psa/cwp/view.asp?a=1293&q=448010.

Table 2. Percentage of Claims Paid and Average Payment for Paid Claims, Adjusted to 2008 Dollars, by Specialty and Overall

SPECIALTY	% OF CLAIMS PAID	AVERAGE INDEMNITY
Oral surgery	50	$ 16,254
Anesthesiology	36	$ 40,129
Otorhinolaryngology	63	$ 71,467
General and colorectal surgery	66	$ 90,467
Obstetric and gynecologic surgery	61	$ 95,693
Plastic surgery	78	$ 98,416
Orthopedic surgery	71	$133,047
Ophthalmology	79	$148,283
Urologic surgery	60	$182,317
Cardiovascular and thoracic surgery	41	$306,460
Neurosurgery	75	$425,677
Average for all operative specialties	62	$146,201

Source: Special request, Wrong patient—ECRI Institute: wrong patient or wrong body part by specialty and year, 2008, Physician Insurers Association of America.

Although the number of reports of wrong-site surgery events submitted through PA-PSRS by quarter has not improved, results from an improvement collaborative implemented by the Health Care Improvement Foundation (HCIF) are encouraging. The HCIF collaborative was sponsored by the Partnership for Patient Care, a multiyear patient safety initiative funded by Independence Blue Cross and participating hospitals and health systems. The goal of the HCIF collaborative was to improve the Universal Protocol process in operating suites.[5] Thirty facilities in the Delaware Valley region of the state (Philadelphia and its suburban counties) participated in a comprehensive program that included baseline surveys of processes and observations of practices, didactic education, technical assistance, workshops, conference calls devoted to each of the three elements of the Universal Protocol, and follow-up surveys of processes and observations of practices. The facilities shared with each other their experiences of successful and unsuccessful attempts to correct identified weaknesses in their processes.

Some of the improvements in compliance of policies and practices could be linked to compliance levels for the Pennsylvania Patient Safety Authority's Self-Assessment Checklist for Program Elements Associated with Preventing Wrong-Site Surgery that were submitted by facilities that had no reports of wrong-site surgery. Some could be linked to compliance levels for near misses that have been reported with the ongoing comparison of near-miss and wrong-site surgery events that facilities throughout Pennsylvania have submitted through PA-PSRS, as reported in the June 2008 *Advisory*.[4] Out of seven possible links between the different programs, the HCIF collaborative facilities showed improvements in four areas from below to above the PA-PSRS baseline for reports associated with no wrong-site surgery. In two areas, the improvement approximated the baseline (93% compliance versus 94% baseline compliance and 99% compliance versus 100% baseline compliance). In all six of these areas, the final compliances were over 90%. One of the seven areas that could be linked was the surgeon explicitly encouraging members of the operative team to speak up if concerned. The HCIF collaborative facilities showed improvement from 55% to 63%, but did not approach the baseline

Enter the Time-Out in the OR Competition

Does your facility have a particularly good script for the time out in the operating room (OR)? If so, please enter the Time-Out in the OR competition. Here's what you have do:

Write down your script for a Time-Out in the OR for Mary Jones' (MR# 007) Left Total Hip Replacement as if it were a Shakespearean play. For example:

> ***Circulating nurse:*** *"Time-out. We are doing a left total hip replacement on Mary Jones, medical record number 007; is that right?"*
>
> ***Surgeon:*** *"Right."*
>
> ***Anesthesia provider:*** *"Agree."*

Submit the script in a Microsoft Word document or its electronic text equivalent to JClarke@ecri.org before December 1, 2008.

The entries will be posted for peer review and comments. The winning entries will be determined by a vote of your peers, posted on the Pennsylvania Patient Safety Authority Web site, and profiled in an upcoming issue of the *Advisory*.

This is your opportunity to share your expertise with others.

compliance of 76% for PA-PSRS reports associated with no wrong-site surgery.[4] The results suggest that assessment of a facility's Universal Protocol process can identify weaknesses that can be strengthened to match facilities that have not reported wrong-site surgery. A form for observing compliance with the Universal Protocol process can be found on the Pennsylvania Patient Safety Authority's Web site.

Facilities with specific problems or questions concerning wrong-site surgery are welcome to submit comments or specific inquiries. Communications should be directed to John Clarke, MD, FACS, Clinical Director of the Pennsylvania Patient Safety Authority at (866) 316-1070 or JClarke@ecri.org.

Notes

1. Special request, Wrong patient—ECRI Institute: wrong patient or wrong body part by specialty and year, 2008, Physician Insurers Association of America.

2. Mody MG, Nourbakhsh A, Stahl DL, et al. The prevalence of wrong level surgery among spine surgeons. *Spine* 2008 Jan 15;33(2):194-8.

3. Kwaan MR, Studdert DM, Zinner MJ, et al. Incidence, patterns, and prevention of wrong-site surgery. *Arch Surg* 2006 Apr;141(4):353-8.

4. Pennsylvania Patient Safety Reporting System. Quarterly update on the preventing wrong-site surgery project. Pa Patient Saf Advis [online] 2008 Jun. [cited 2008 Aug 5]. Available from Internet: http://www.psa.state.pa.us/psa/lib/psa/advisories/v5n2june_2008/jun_2008_v5_n2.pdf.

5. The Health Care Improvement Foundation. Wrong-site surgery [patient safety topic online]. 2008 [cited 2008 Aug 5]. Available from Internet: http://www.hcifonline.org/section/topics/patient_safety/wrong_site_surgery.

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THE PENNSYLVANIA PATIENT SAFETY AUTHORITY AND ITS CONTRACTORS

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An Independent Agency of the Commonwealth of Pennsylvania

The Patient Safety Authority is an independent state agency created by Act 13 of 2002, the Medical Care Availability and Reduction of Error ("Mcare") Act. Consistent with Act 13, ECRI Institute, as contractor for the PA-PSRS program, is issuing this publication to advise medical facilities of immediate changes that can be instituted to reduce Serious Events and Incidents. For more information about the PA-PSRS program or the Patient Safety Authority, see the Authority's Web site at www.psa.state.pa.us.

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The Institute for Safe Medication Practices (ISMP) is an independent, nonprofit organization dedicated solely to medication error prevention and safe medication use. ISMP provides recommendations for the safe use of medications to the healthcare community including healthcare professionals, government agencies, accrediting organizations, and consumers. ISMP's efforts are built on a nonpunitive approach and systems-based solutions.