

Explain your paper in your own words  
with **AudioSlides**





**NOW AVAILABLE**

Article of the Future

# SURGERY

RSS Feeds 

Login | Register 

Articles & Issues  For Authors  Journal Info  Subscribe Society Information  More Periodicals 

Search for  in  All Fields [Advanced Search](#)

« Previous

**Surgery**

Next »

[Volume 153, Issue 4](#), Pages 465-472, April 2013

 [Print or Share This Page](#)

Access this article on

[SciVerse ScienceDirect](#) 

## Surgical never events in the United States

[Winta T. Mehtsun](#), MD, MPH, [Andrew M. Ibrahim](#), MD, [Marie Diener-West](#), PhD, [Peter J. Pronovost](#), MD, PhD, [Martin A. Makary](#), MD, MPH



Accepted 22 October 2012. published online 18 December 2012.

**Abstract**

Full Text

PDF

References

### Background

Surgical never events are being used increasingly as quality metrics in health care in the United States. However, little is known about their costs to the health care system, the outcomes of patients, or the characteristics of the providers involved. We designed a study to describe the number and magnitude of paid malpractice claims for surgical never events, as well as associated patient and provider characteristics.

### Methods

We used the National Practitioner Data Bank, a federal repository of medical malpractice claims, to identify malpractice settlements and judgments of surgical never events, including retained foreign bodies, wrong-site, wrong-patient, and wrong-procedure surgery. Payment amounts, patient outcomes, and provider characteristics were evaluated.

### Results

We identified a total of 9,744 paid malpractice settlement and judgments for surgical never events occurring between 1990 and 2010. Malpractice payments for surgical never events totaled \$1.3 billion. Mortality occurred in 6.6% of patients, permanent injury in 32.9%, and temporary injury in 59.2%. Based on literature rates of surgical adverse events resulting in paid malpractice claims, we estimated that 4,082 surgical never event claims occur each year in the United States. Increased payments were associated with severe patient outcomes and claims involving a physician with multiple malpractice reports. Of physicians named in a surgical never event claim, 12.4% were later named in at least 1 future surgical never event claim.

### Conclusion

Surgical never events are costly to the health care system and are associated with serious harm to patients. Patient and provider characteristics may help to guide prevention strategies.

To access this article, please choose from the options below

[Login](#) | [Register](#)

Login to an existing account or Register a new account.

**Purchase this article for 31.50 USD** (You must login/register to purchase this article)

Online access for 24 hours. The PDF version can be downloaded as your permanent record.

[Subscribe to this title](#)

Get unlimited online access to this article and all other articles in this title 24/7 for one year.

[Claim access now](#)

For current subscribers with Society Membership or Account Number.

### Article Tools

 Email Abstract

 Add to My Reading List

 Rights/Permissions

 Request Reprints

 Related Articles

 (0) Cited in Scopus

 Export Citation

 Create Citation Alert

[Visit SciVerse ScienceDirect](#) to see if you have access via your institution.

PII: S0039-6060(12)00623-X

doi:10.1016/j.surg.2012.10.005

© 2013 Mosby, Inc. All rights reserved.

[« Previous](#)

**Surgery**

[Next »](#)

[Volume 153, Issue 4](#), Pages 465-472, April 2013

Copyright © 2013 [Elsevier](#) Inc. All rights reserved. | [Privacy Policy](#) | [Terms & Conditions](#) | [Feedback](#) | [About Us](#) | [Help](#) | [Contact Us](#)

The content on this site is intended for health professionals.

Advertisements on this site do not constitute a guarantee or endorsement by the journal, Association, or publisher of the quality or value of such product or of the claims made for it by its manufacturer.



**Patient Safety Primers >**

What are Patient Safety Primers?

Never Events

Download: [Adobe Reader](#) [Email](#) [Print](#)

Related Patient Safety Primers



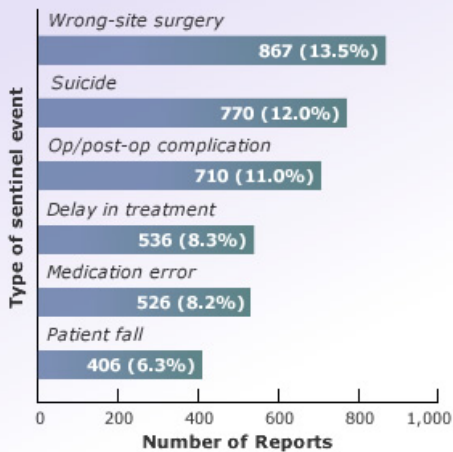
• [Error Disclosure](#)

[View all Patient Safety Primers](#)

**Background**

The term "Never Event" was first introduced in 2001 by Ken Kizer, MD, former CEO of the National Quality Forum (NQF), in reference to particularly shocking medical errors (such as wrong-site surgery) that should never occur. Over time, the list has been expanded to signify adverse events that are unambiguous (clearly identifiable and measurable), serious (resulting in death or significant disability), and usually preventable. The NQF initially defined 27 such events in 2002. The list has been revised since then, most recently in 2011, and now consists of 29 events grouped into 6 categories: surgical, product or device, patient protection, care management, environmental, radiologic, and criminal.

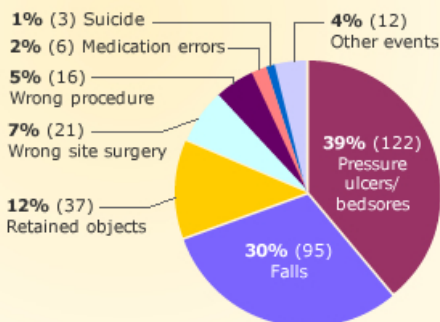
**Sentinel events most frequently reported\* to The Joint Commission**



\*6428 total reports as of September 30, 2009

Source: Sentinel Event Statistics. September 30, 2009. The Joint Commission Web site.

**Distribution of the 312 "never events" reported to the Minnesota Department of Health in 2007-2008**



Source: Adverse Health Events in Minnesota. Fifth Annual Public Report. St. Paul, MN: Minnesota Department of Health; January 2009. Available at: <http://www.health.state.mn.us/patientsafety/publications/consumerguide.pdf>. Accessed December 30, 2009.

<b>Table. Never Events, 2011</b>
<b>The National Quality Forum's Health Care "Never Events" (2011 Revision)</b>
<b>Surgical events</b>
Surgery or other invasive procedure performed on the wrong body part
Surgery or other invasive procedure performed on the wrong patient
Wrong surgical or other invasive procedure performed on a patient
Unintended retention of a foreign object in a patient after surgery or other procedure
Intraoperative or immediately postoperative/postprocedure death in an American Society of Anesthesiologists Class I patient
<b>Product or device events</b>
Patient death or serious injury associated with the use of contaminated drugs, devices, or biologics provided by the health care setting
Patient death or serious injury associated with the use or function of a device in patient care, in which the device is used for functions other than as intended
Patient death or serious injury associated with intravascular air embolism that occurs while being cared for in a health care setting
<b>Patient protection events</b>
Discharge or release of a patient/resident of any age, who is unable to make decisions, to other than an authorized person
Patient death or serious disability associated with patient elopement (disappearance)
Patient suicide, attempted suicide, or self-harm resulting in serious disability, while being cared for in a health care facility
<b>Care management events</b>
Patient death or serious injury associated with a medication error (e.g., errors involving the wrong drug, wrong dose, wrong patient, wrong time, wrong rate, wrong preparation, or wrong route of administration)
Patient death or serious injury associated with unsafe administration of blood products
Maternal death or serious injury associated with labor or delivery in a low-risk pregnancy while being cared for in a health care setting
Death or serious injury of a neonate associated with labor or delivery in a low-risk pregnancy
Artificial insemination with the wrong donor sperm or wrong egg
Patient death or serious injury associated with a fall while being cared for in a health care setting
Any stage 3, stage 4, or unstageable pressure ulcers acquired after admission/presentation to a health care facility
Patient death or serious disability resulting from the irretrievable loss of an irreplaceable biological specimen
Patient death or serious injury resulting from failure to follow up or communicate laboratory, pathology, or radiology test results

<b>Environmental events</b>
Patient or staff death or serious disability associated with an electric shock in the course of a patient care process in a health care setting
Any incident in which a line designated for oxygen or other gas to be delivered to a patient contains no gas, the wrong gas, or is contaminated by toxic substances
Patient or staff death or serious injury associated with a burn incurred from any source in the course of a patient care process in a health care setting
Patient death or serious injury associated with the use of restraints or bedrails while being cared for in a health care setting
<b>Radiologic events</b>
Death or serious injury of a patient or staff associated with introduction of a metallic object into the MRI area
<b>Criminal events</b>
Any instance of care ordered by or provided by someone impersonating a physician, nurse, pharmacist, or other licensed health care provider
Abduction of a patient/resident of any age
Sexual abuse/assault on a patient within or on the grounds of a health care setting
Death or significant injury of a patient or staff member resulting from a physical assault (i.e., battery) that occurs within or on the grounds of a health care setting

(Reprinted with permission from the National Quality Forum.)

Most Never Events are very rare. For example, a 2006 [study](#) estimated that a typical hospital might experience a case of wrong-site surgery once every 5 to 10 years. However, when Never Events occur, they are devastating to patients—71% of events reported to the Joint Commission over the past 12 years were [fatal](#)—and may indicate a fundamental safety problem within an organization.

The Joint Commission has recommended that hospitals report "[sentinel events](#)" since 1995. Sentinel events are defined as "an unexpected occurrence involving death or serious physiological or psychological injury, or the risk thereof." The NQF's Never Events are also considered sentinel events by the Joint Commission. The Joint Commission mandates performance of a [root cause analysis](#) after a sentinel event. The [Leapfrog Group](#) recommends that in addition to an RCA, organizations should [disclose the error](#) and apologize to the patient, report the event, and waive all costs associated with the event.

**Current Context**

Because Never Events are devastating and preventable, health care organizations are under increasing pressure to eliminate them completely. The Centers for Medicare and Medicaid Services (CMS) [announced](#) in August 2007 that Medicare would no longer pay for additional costs associated with many preventable errors, including those considered Never Events. Since then, many [states](#) and private insurers have adopted similar policies. Since February 2009, CMS has not paid for any costs associated with [wrong-site surgeries](#).

Never Events are also being publicly reported, with the goal of increasing accountability and improving the quality of care. Since the NQF disseminated its original Never Events list in 2002, 11 [states](#) have mandated reporting of these incidents whenever they occur, and an additional 16 states mandate reporting of serious adverse events (including many of the NQF Never Events). Health care facilities are accountable for correcting systematic problems that contributed to the event, with some states (such as [Minnesota](#)) mandating performance of a root cause analysis and reporting its results.

[What's New in Never Events on AHRQ PSNet](#)

STUDY

**Effects of the 2011 duty hour reforms on interns and their patients: a prospective longitudinal cohort study.**

Sen S, Kranzler HR, Didwania AK, et al. JAMA Intern Med. 2013 Mar 25; [Epub ahead of print].

## STUDY

**Effect of the 2011 vs 2003 duty hour regulation-compliant models on sleep duration, trainee education, and continuity of patient care among internal medicine house staff: a randomized trial.**

Desai SV, Feldman L, Brown L, et al. JAMA Intern Med. 2013 Mar 25; [Epub ahead of print].

## STUDY

**A theory-driven, longitudinal evaluation of the impact of team training on safety culture in 24 hospitals.**

Jones KJ, Skinner AM, High R, Reiter-Palmon R. BMJ Qual Saf. 2013 Feb 23; [Epub ahead of print].

## STUDY

**Creating an infrastructure for safety event reporting and analysis in a multicenter pediatric emergency department network.**

Chamberlain JM, Shaw KN, Lillis KA, et al. Pediatr Emerg Care. 2013;29:125-130.

## STUDY

**High performance teamwork training and systems redesign in outpatient oncology.**

Bunnell CA, Gross AH, Weingart SN, et al. BMJ Qual Saf. 2013 Jan 24; [Epub ahead of print].

## STUDY

**Accuracies of diagnostic methods for acute appendicitis.**

Park JS, Jeong JH, Lee JI, Lee JH, Park JK, Moon HJ. Am Surg. 2013;79:101-106.

## DATABASE/DIRECTORY

**HospitalInspections.org**

Columbia, MO: Association of Health Care Journalists.

[View all AHRQ PSNet resources on Never Events](#)

## Editor's Picks for Never Events

From AHRQ web **M&M****Advancing Patient Safety through State Reporting Systems.**

Jill Rosenthal, MPH. AHRQ WebM&M [serial online]. June 2007

**The Other Side.**

Charles Vincent, PhD. AHRQ WebM&M [serial online]. October 2003

From AHRQ **PSNet**

## JOURNAL ARTICLE

**Incidence, patterns, and prevention of wrong-site surgery.** CLASSIC

Kwaan MR, Studdert DM, Zinner MJ, Gawande AA. Arch Surg. 2006;141:353-358.

**Achieving the National Quality Forum's "Never Events": prevention of wrong site, wrong procedure, and wrong patient operations.**

Michaels RK, Makary MA, Dahab Y, et al. Ann Surg. 2007;245:526-532.

**Inpatient suicide: preventing a common sentinel event.**

Tishler CL, Reiss NS. Gen Hosp Psychiatry. 2009;31:103-109.

**Case 34-2010: a 65-year-old woman with an incorrect operation on the left hand.** CLASSIC

Ring DC, Herndon JH, Meyer GS. N Engl J Med. 2010;363:1950-1957.

**Shaping systems for better behavioral choices: lessons learned from a fatal medication error.**

## CLASSIC

Smetzer J, Baker C, Byrne FD, Cohen MR. Jt Comm J Qual Patient Saf. 2010;36:152-163, 1AP-2AP.

**Medicare's policy not to pay for treating hospital-acquired conditions: the impact.** CLASSIC

McNair PD, Luft HS, Bindman AB. Health Aff (Millwood). 2009;28:1485-1493.

**BOOK/REPORT**

**Serious Reportable Events in Healthcare—2011 Update.** **CLASSIC**

Washington, DC: National Quality Forum; 2011. ISBN: 9780982842188.

**What Every Health Care Organization Should Know about Sentinel Events.**

McKee J, ed. Oakbrook Terrace, IL: Joint Commission Resources; 2005. ISBN: 0866889116.

**Consumer Guide to Adverse Health Events.**

St. Paul, MN: Minnesota Department of Health; January 2009.

**NEWSPAPER/MAGAZINE ARTICLE**

**Medicare says it won't cover hospital errors.**

Pear R. New York Times. August 19, 2007.

**TOOLS/TOOLKIT**

**Eliminating Serious, Preventable, and Costly Medical Errors - Never Events.**

Baltimore, MD: Centers for Medicare & Medicaid Services (CMS) Office of Public Affairs; May 18, 2006.

**WEB RESOURCE**

**Sentinel Event.** **CLASSIC**

The Joint Commission.

Last Updated: October 2012

Produced for the [Agency for Healthcare Research and Quality](#) by a [team of editors](#) at the [University of California, San Francisco](#) with guidance from a prominent [Editorial Board](#) and [Advisory Panel](#). The AHRQ PSNet site was designed and implemented by Silverchair.

[Contact AHRQ PSNet](#) | [Copyright](#) | [AHRQ PSNet Privacy Policy](#) | [Terms & Conditions](#) | [Help](#)



*Advancing Excellence in Health Care*

[AHRQ Home](#) | [Questions?](#) | [Contact AHRQ](#) | [Site Map](#) | [Accessibility](#) | [Privacy Policy](#) | [Freedom of Information Act](#) | [Disclaimers](#)

[HHS Home](#) | [The White House](#) | [USA.gov](#): U.S. Government Official Web Portal

Agency for Healthcare Research and Quality • 540 Gaither Road Rockville, MD 20850 • Telephone: (301) 427-1364