

## **Top 10 Most Costly, Frequent Medical Errors**

*Cheryl Clark, for HealthLeaders Media, August 11, 2010*

Avoidable medical errors added \$19.5 billion to the nation's healthcare bill in 2008, according to a claims-based study conducted by Millman, Inc. on behalf of the Society of Actuaries (SOA). The report lists the 10 most expensive errors in healthcare settings.

Most of that amount, \$17 billion, was the cost of providing inpatient, outpatient and prescription drug services to individuals affected by medical errors, says Jim Toole, chairman of SOA. "While this cost is staggering, it also highlights the need to reduce errors and improve quality and efficiency in American healthcare."

Pressure ulcers—the most frequent type of expensive error—were most often preventable, the authors wrote.

The other nine errors include postoperative infections and problems related to devices and prosthetics, among other complications.

Milliman consultant Jonathan Shreve, a co-author of the report, described the estimates as conservative. "This number includes only the errors that we could identify through claims data, so the total economic impact of medical errors is in fact greater than what we have reported."

The report included about \$1.4 billion in costs related to increased mortality, and \$1.1 billion in lost productivity due to short-term disability, but not pain and suffering because they are not measureable from medical claim databases, or

The report's executive summary estimates that an even greater number, 6.3 million medical injuries, occurred in the U.S. in 2008. Of those, 1.5 million were associated with a medical error.

The authors evaluated each medical injury and estimated the likelihood that such an injury was caused by a medical error rather than the result of medical treatment.

"We measured the total cost per error as approximately \$13,000, resulting in a total cost to the United States economy of \$19.5 billion," the authors wrote.

"Additionally, these errors resulted in over 2,500 excess deaths and over 10 million excess days missed from work due to short-term disability."

The report also detailed that claims from inpatient billings revealed that 7% of admissions resulted in some type of medical injury.

The authors called on the insurance industry, which it said had previously had "low visibility" in its involvement with quality improvement initiatives, "to assume an active role by helping healthcare systems implement an actuarial approach, which can more systematically identify potential causes of medical errors than alternative approaches."

The report listed the 10 most expensive types of errors in 2008, the number of errors, the cost per error, and the total cost. The first five make up 55% of the total error costs.

The list is as follows:

1. Pressure ulcers—374,964 errors, \$10,288 per error and \$3.858 billion total.
2. Postoperative infections—252,695 errors, \$14,548 per error, \$3.676 billion total.
3. Mechanical complication of a device, implant or graft—60,380 errors, \$18,771 per error, \$1.133 billion total.
4. Postlaminectomy syndrome—113,823 errors, \$9,863 per error, \$1.123 billion total.
5. Hemorrhage complicating a procedure—78,216 errors, \$12,272 per error, \$960 million total.
6. Infection following infusion, injection, transfusion, vaccination—8,855 errors, \$78,083 per error, \$691 million total.
7. Pneumothorax—25,559 errors, \$24,132 per error, \$617 million total.
8. Infection due to central venous catheter—7,062 errors, \$83,365 per error, \$589 million total.
9. Other complications of internal (biological) (synthetic) prosthetic device, implant and graft—26,783 errors, \$17,233 per error and \$462 million total.
10. Ventral hernia without mention of obstruction or gangrene—53,810 errors, \$8,178 per error and \$440 million total.

The report also lists the most frequent medical errors.

They are in order: pressure ulcer, postoperative infection, postlaminectomy syndrome, hemorrhage complicating a procedure, accidental puncture or laceration during a procedure, mechanical complication of device, implant or graft, ventral hernia without mention of obstruction or gangrene, hematoma complicating a procedure, unspecified adverse effect of a drug medicinal and biological substance not elsewhere classified and mechanical complication of cardiac device, implant or graft.

As health providers struggle to find ways to minimize costs of care, they also are paying attention to preventing the most costly errors. This report listed 10 errors that are most costly on a per error basis, although they may not necessarily occur as often.

The most expensive errors on a per-error basis are as follows:

1. Postoperative shock—\$93,682.
2. Infection due to central venous catheter—\$83,365.
3. Infection following infusion, injection, transfusion or vaccination—\$78,083.
4. Gastrostomy complications, infection—\$66,765.
5. Complications of transplanted organ—\$66,658.
6. Infection and inflammatory reaction due to internal prosthetic device, implant and graft—\$62,265.
7. Tracheostomy complications—\$56,479.
8. Gastrostomy complications, mechanical—\$55,219.

9. Infusion or transfusion reaction—\$51,686.
10. Gastrostomy complications—\$49,115.