Study finds low rate of surgical site infections following ambulatory surgery

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In an analysis that included nearly 300,000 patients from eight states who underwent ambulatory surgery (surgery performed on a person who is admitted to and discharged from a hospital on the same day), researchers found that the rates of surgical site infections were relatively low; however, the absolute number of patients with these complications is substantial, according to a study in the February 19 issue of *JAMA*.

Surgical site infections are among the most common health care-associated infections, accounting for 20 percent to 31 percent of health care-associated infections in hospitalized patients, according to background information in the article. Although ambulatory surgeries represent a substantial portion of surgical health care, there is a lack of information on adverse events, including health care-associated infections.

Pamela L. Owens, Ph.D., of the Agency for Healthcare Research and Quality, Rockville, Md., and colleagues determined the incidence of clinically significant surgical site infections (CS-SSIs) following low- to moderate-risk ambulatory surgery in patients with low risk for surgical complications (defined as not seen in past 30 days in acute care, length of stay less than 2 days, no other surgery on the same day, and discharged home and no infection coded on the same day). The researchers used the 2010 Healthcare Cost and Utilization Project State Ambulatory Surgery and State Inpatient Databases for 8 states (California, Florida, Georgia. Hawaii. Missouri, Nebraska, New York, and Tennessee), representing one-third of the U.S. population. The

analysis included 284,098 ambulatory surgical procedures (general surgery, orthopedic, neurosurgical, gynecologic, and urologic) in adult patients; rates were calculated for 14- and 30-day postsurgical acute care visits for CS-SSIs following ambulatory surgery.

The researchers found that the overall rate of postsurgical acute care visits within 14 days for CS-SSIs was relatively low (3.09 per 1,000 ambulatory surgical procedures). When the time frame was extended to 30 days, the rate increased to 4.84. Two-thirds (63.7 percent) of all visits for CS-SSI occurred within 14 days of the surgery; of those visits, 93.2 percent involved treatment in the inpatient setting.

The authors note that although the overall rate of CS-SSIs was low, because of the large number of ambulatory surgical procedures performed annually, in absolute terms, a substantial number of patients develop clinically significant postoperative infections. Most of these infections occurred within 2 weeks after surgery and resulted in hospital admission. "Our findings suggest that earlier access to a clinician or member of the surgical team (e.g., telephone check-in prior to 2 weeks) may help identify and treat these infections early and reduce overall morbidity."

"Prior studies showing significant lapses in infection control practices at ambulatory surgery centers suggest that quality improvement efforts may facilitate reducing CS-SSIs following ambulatory surgery."

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