Mostly Preventable Surgical-Site Infections Double VA Treatment Costs

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IOWA CITY, IA – In addition to increasing mortality and morbidity, surgical-site infections (SSIs) nearly double the cost of treatment of patients at the VA yet usually are preventable with good infection-control practices, according to a new study.

More than $6 million could be saved by the VA each year if the worst-performing VAMCs — those in the highest 10th percentile — improved only up to the 50th percentile in preventing SSIs, according to the authors of the study, published recently in *JAMA Surgery*.[1]

“The best take-away from this paper is that surgical-site infections are not only painful to the patient, they are also costly to hospitals. Thus, interventions to reduce SSIs may be cost-effective for hospitals,” lead author Marin L. Schweizer, PhD, of the Iowa City VA Health Care System told *U.S. Medicine*.

Background in the article noted that treatment for SSIs can include long courses of antibiotics, physical therapy, hospital readmissions and reoperations. Yet, many of these infections are potentially preventable, the authors suggested, pointing out that the Centers for Medicare and Medicaid stopped paying for increased costs associated with SSIs after some surgical procedures because they were not an inevitable side effect of surgery.

Schweizer suggested a range of methods can be used to avoid surgical-site infections including “patient-centered interventions such as testing patients for *S. aureus* nasal colonization preoperatively then decolonizing them using mupirocin and chlorhexidine-gluconate; or these could be personnel interventions such as decreasing door openings in operating rooms to keep negative pressure air flow and decrease distractions.”

For the study, researchers focused on total, superficial and deep SSIs in 54,233 patients from 129 VA hospitals in 2010. The VHA cost databases also were used to identify the totalcosts associatedwiththeindexadmissionandallsubsequentreadmissionswithin30daysofdischarge.

Among the veterans undergoing surgery, 1,756, 3.2%, experienced an SSI — 0.8% a deep SSI and 2.4% a superficial SSI. The average costs for patients without an SSI were $31,580 compared to $52,620 for those developing an infection, results indicated.

“If hospitals in the highest 10th percentile (i.e., the worst hospitals) reduced their SSI rates to the rates of the hospitals in the 50th percentile, the Veterans Health Administration would save approximately $6.7 million per year,” the authors pointed out.

The rate of surgical patients developing SSIs in VA facilities was in line with the private sector, the authors said.

The greatest average cost related to SSIs, $23,755, was in neurology, but orthopedic, general, peripheral vascular and urologic surgeries also showed much larger expenses because of SSIs.

“Although neurosurgery is one of the five most common surgery types in this data set and is associated with the highest costs attributable to SSIs, cost-benefit analyses should be performed to determine which surgical groups should be targeted for prevention efforts,” according to the study. “For example, 40.5% of all SSIs reported to the CDC National Healthcare Safety Network were following orthopedic surgery, whereas only 2.4% of reported SSIs were following neurological surgery. Interventions that can be implemented across multiple types of surgery may be ideal for preventing SSIs and their associated costs.”

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