Greater Need For Sepsis Screening In Surgical ICUs

New research shows surgical infection kills 10 times more than heart attack and blood clots during surgery

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Newswise — New research from The Methodist Hospital in Houston shows that sepsis is 10 times more common and more lethal than other more well-known surgical complications including heart attacks and blood clots. These results, published today in the Archives of General Surgery, show a greater need for sepsis awareness and early recognition during and after surgery.

Sepsis is a condition caused by a severe infection, and the number of people dying from sepsis has almost doubled in the past 20 years nationwide.

”This research shows that hospitals need to identify at-risk patients earlier and implement sepsis screening and early evidence based interventions with vigilance,” said Dr. Laura Moore, surgeon at Methodist and principal investigator for the study. “Hospitals must put in place consistent, effective measures that are easy to implement.”

Severe sepsis is the leading cause of organ failure and mortality in general surgery ICUs. By the end of 2010, it is estimated that approximately 934,000 people in the U.S. will be afflicted with sepsis. Risk factors for sepsis among surgical patients include age (over 60), the need for emergency surgery and the presence of co-morbidities like diabetes, high blood pressure, cancer or obesity.

“There’s nothing we can do to change the fact that a patient is over 60, needs emergency surgery or has diabetes, for instance,” said Moore. “But if we understand the risk factors, there are a lot of relatively simple steps we can take to recognize sepsis and intervene early. We can save 10 times more lives addressing sepsis than we do with all the controls in place to prevent myocardial infarction or pulmonary embolisms.”

Moore designed and implemented an effective sepsis screening tool for use in the surgical ICU that is not too cumbersome for health care providers to follow easily, quickly and efficiently. The screening tool uses four parameters that are early indicators of the onset of sepsis: heart rate, temperature, respiratory rate and white blood cell count. These four markers are checked regularly at the bedside so that sepsis issues can be addressed immediately. Upon any sign of early onset, patients are evaluated for a source of infection by a trained clinician, and if appropriate, given fluids and broad-spectrum antibiotics to eliminate the infection.

About the study The study was a retrospective review of 363,8967 general surgical patients in the American College of Surgeons National Surgical Quality Improvement Program (NSQIP) database, the largest outcomes database of this nature. Of these patients, sepsis occurred in 2.3 percent, septic shock in 1.6 percent, pulmonary embolism in 0.3 percent, and myocardial infarction in 0.2 percent. The presence of any co-morbidity increased the risk of sepsis or septic shock six-fold and increased the 30-day mortality rate 22-fold.

For more information on The Methodist Hospital, see www.methodisthealth.com [1].

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