

New study reports on the high cost of cardiac surgery healthcare associated infections

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After cardiac surgery, healthcare-associated infections (HAIs) are common complications associated with increased morbidity, mortality, and use of resources.

Study findings reported at the American Heart Association's Scientific Sessions 2013 by investigators from the Cardiothoracic Surgical Trials Network (CTSN), whose Data and Clinical Coordinating Center is at Icahn School of Medicine at Mount Sinai, revealed the substantial economic impact of HAIs following cardiac surgery and the importance of preventing these infections leading to re-hospitalizations.

In the new analysis, researchers examined data about the incremental costs associated with major HAIs within 65 days of cardiac surgery. Clinical data from 4,320 patients at nine academic medical centers was merged with related financial data routinely collected by the University Health Consortium in the United States. The most common cardiac surgery procedures undergone by these patients included valve surgery, coronary artery bypass graft (CABG), and CABG/valve surgery.

The data show during hospitalization, 2.7 percent of patients experienced major infections, such as pneumonia, sepsis, *C. Difficile*, and surgical site infections.

The average cost due to treating major HAI infection was calculated as about \$40,000, with increased costs from Intensive Care Unit stays being an important contributing factor. Also, patients with major HAIs were

nearly twice as likely to be readmitted as those with non-HAIs. In the patient population studied, there were 74 readmissions, with 8.7 percent due to HAIs.

"Our analysis found readmissions due to HAIs, after cardiac surgery cost on average nearly three times as much as non-HAI related readmissions," says Giampaolo Greco, PhD, Assistant Professor of Health Evidence and Policy at Icahn School of Medicine at Mount Sinai.

"We need to take action to avert preventable readmissions due to HAI infection rates after [cardiac surgery](#), first for the patient's [health](#) and also to curb rising healthcare costs," says Dr. Greco.

This study was funded by the National Institutes of Health and Institute for Health Technology Studies (InHealth), a non-profit foundation.

As principal investigator for CTSN's Data and Clinical Coordinating Center based at Mount Sinai, Annetine C. Gelijns, PhD, Professor and Chair of the Department of Health Evidence and Policy at Icahn School of Medicine at Mount Sinai, previously received financial compensation as a consultant for InHealth's Research Council, which has supported some of the study-related analyses.

This study was presented at the AHA Scientific Sessions 2013 in Abstract Poster Session (18267): The Economic Impact of Healthcare Associated Infections in Cardiac Surgery.

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