Regional surgical quality collaborative significantly improves surgical outcomes and reduces cost

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A new study published online today in the *Journal of the American College of Surgeons* finds hospitals participating in a regional collaborative of the American College of Surgeon's National Surgical Quality Improvement Program (ACS NSQIP®), achieved substantial improvements in surgical outcomes, such as reducing the rates of acute renal failure and surgical site infections. The collaborative also saved $2,197,543 per 10,000 general and vascular surgery cases when comparing results from 2010 with results from 2009. ACS NSQIP is the leading nationally validated, risk-adjusted, outcomes-based program to measure and improve the quality of surgical care in the private sector.

The Tennessee Surgical Quality Collaborative (TSQC) collected ACS NSQIP data from 10 participating hospitals to examine and identify trends in surgical outcomes and evaluate best practices among these hospitals. The study evaluated 20 categories of postoperative complications, 30-day mortality rates, and hospital costs associated with postoperative complications in a total of 14,205 surgical cases in 2009 and 14,901 surgical cases in 2010.

"We demonstrated that hospitals in a collaborative can greatly improve their quality by sharing data, comparing results, and evaluating best practices and process improvement approaches with their peers," said Joseph B. Cofer MD, FACS, statewide surgeon champion for the collaborative, author of the study and professor of surgery and surgery

residency program director, Department of Surgery, at the University of Tennessee College of Medicine-Chattanooga.

The Tennessee collaborative saw improvements in such procedures as acute renal failure (25.1% reduction, P = 0.023), graft/prosthesis/flap failure (60.5% reduction, P

According to the researchers, improvements in areas such as skin and soft tissue/wound disruption and ventilator management may be credited to the identification of a problem and rapid change in practice based upon evidence-based medicine.1 Improvements in renal and graft failure may be attributed to overall attention being focused on a problem that was uncovered through involvement in ACS NSQIP.

"While previous studies have shown that participation in quality improvement programs such as ACS NSQIP have been shown to save lives, improve health and reduce costs, the Tennessee collaborative illustrates that participation in an ACS NSQIP collaborative can accelerate those benefits and take quality improvement to a whole new level," said Oscar D. Guillamondegui, MD, MPH, FACS, lead author and associate professor of surgery at Vanderbilt University Medical Center, Nashville.

As the health care system seeks to find ways to reduce costs, many hospitals and health care professionals are organizing themselves into "collaboratives" to work together to share best practices. The TSQC was formed in 2008 and is led by the Tennessee Chapter of the American College of Surgeons (TnACS) and the Tennessee Hospital Association with funding from the BlueCross BlueShield of Tennessee Health Foundation. The TSQC consists of Erlanger Hospital, Chattanooga; Vanderbilt University Hospital, Nashville; St. Francis Hospital, Memphis; Baptist Memorial Hospital, Memphis; Cookeville Regional Medical Center, Cookeville; Jackson Madison County General Hospital,

Jackson; Johnson City Medical Center, Johnson City; Methodist University Hospital, Memphis; Parkwest Medical Center, Knoxville; and the University of Tennessee Medical Center, Knoxville.

ACS NSQIP collects patient and surgical procedure information, as well as 30-day postoperative outcomes. The results are reported semiannually to the participating sites, along with comparisons of the results from other health care facilities across the United States. There are currently more than 20 ACS NSQIP collaboratives in existence or in development, including collaboratives within hospital systems and additional statewide collaborates in Florida and Oregon.

More information: 1 McGlynn, E.A., Intended and unintended consequences: what should we really worry about?Medical care, 2007. 45(1): p. 3-5.

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