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First pediatric surgical quality program shows potential to measure children's outcomes

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A first of its kind surgical quality improvement program for children has the potential to identify outcomes of children's surgical care that can be targeted for quality improvement efforts to prevent complications and save lives. The results of a study of the American College of Surgeons National Surgical Quality Improvement Program-Pediatric (ACS NSQIP Peds) phase 1 pilot were published in the January issue of the *Journal of the American College of Surgeons*.

A partnership of the American College of Surgeons (ACS) and the American Pediatric Surgical Association, ACS NSQIP Peds was developed based on the ACS NSQIP program, which has been shown to help hospitals prevent between 250-500 complications and save 12-36 lives per hospital per year.1 Based on the successes of ACS NSQIP, there has been great interest in a quality improvement program focused on measuring outcomes for pediatric surgery patients. The study shows the principles of ACS NSQIP can be translated to pediatric cases to help hospitals measure children's outcomes. Hospitals could then use that data to learn how to prevent complications, save lives and reduce costs.

"As health reform components are implemented over the next several years, we will see a greater focus on measuring patient outcomes and tying reimbursement to quality of care," said Clifford Y. Ko, MD, FACS, MS, MSHS, Director, ACS Division of Research and Optimal Patient Care, and one of the study's authors. "Having robust clinical data

in a nationally benchmarked, continuously updated database is an essential element to quality improvement. We now know the tools that have prevented complications and saved lives of adults can also be used for children."

In the study, outcomes for 7,287 patients who underwent a surgical procedure between October 2008 and December 2009 were collected from four participating hospitals (Yale New Haven Children's Hospital, New Haven, CT; A.I. DuPont Hospital for Children, Wilmington, DE; The Children's Hospital, Aurora, CO; and Children's Hospital of Wisconsin, Milwaukee, WI). Participants collected data for general/thoracic surgery, otolaryngology, orthopedic surgery, urology, neurosurgery and plastic surgery. The overall mortality rate was 0.3 percent and 3.9 percent of patients experienced a post-operative complication (n=287). Infection was the most common complication, and rates varied by specialty and procedure. Variability in the rate of complications indicates that there are opportunities to identify what rates are above and below the hospital's expected rate, and for hospitals with higher than expected rates of complication to learn from those centers with low rates in order to improve quality of care.

The program is currently in the pilot stage, and future developments will focus on risk-adjusting data to account for the health of the patient prior to the operation, and targeting specific procedures so that hospitals can focus quality improvement efforts on procedures with higher rates of complications. The program is now in phase 2 of development at 29 hospitals around the country.

More information: Hall, BL et al. "Does Surgical Quality Improve in the American College of Surgeons National Surgical Quality Improvement Program." Ann Surg. 2009 Sep; 250(3):363-76.