

Pyloromyotomy Risk Low at Children's Hospitals

VITALS

Major Finding: For infants undergoing corrective surgery for hypertrophic pyloric stenosis, freestanding children's hospitals had the lowest unadjusted complication rate, at 1.2% vs. 1.6% at children's units located within general hospitals and 2.2% at general hospitals.

Data Source: Kids' Inpatient Database of 10,969 pyloromyotomies that were performed during 2000, 2003, and 2006.

Disclosures: Dr. Raval had no relevant financial disclosures.

BY DAMIAN
McNAMARA

FROM THE ACADEMIC SURGICAL
CONGRESS

SAN ANTONIO — Infants with hypertrophic pyloric stenosis experience a shorter length of hospital stay and fewer complications if they undergo surgery at a free-

standing children's hospital rather than a general hospital with or without a children's unit, according to a retrospective study of nearly 11,000 cases.

Dr. Mehul Raval and his associates compared length of stay, charges, and morbidity associated with pyloromyotomy at the three

hospital types. They identified 10,969 infants using the Agency for Healthcare Research and Quality Kids' Inpatient Database for 2000, 2003, and 2006. Patients were less than 1 year old at surgery.

Overall mean length of hospital stay was 2.62 days. Least squares means adjusted length of stay was 2.41 days for freestanding children's hospitals, 2.75 days for the children's units, and 2.82 days for general hospitals.

"We decided a length of stay of 4 or more days would be considered a prolonged length of stay," said Dr. Raval, a clinical scholar in residence in the division of research and optimal patient care at the American College of Surgeons and a general surgery resident at Northwestern University in Chicago.

Prolonged stays were seen in 16% of cases and were more likely following surgery at a general hospital (odds ratio, 1.7) than at a children's hospital after adjusting for patient and hospital factors.

Least squares means adjusted pyloromyotomy charges were \$11,160 at children's hospitals, \$12,284 at children's units, and \$10,197 at general hospitals.

Charges rose over the 3 years of the study. Adjusted mean charges were \$7,733 in 2000, and increased to \$11,335 in 2003 and to \$14,572 in 2006. These differences were statistically significant.

Of the 786 hospitals in the database, 30 (4%) were freestanding children's hospitals, "but they accounted for nearly 25% of our procedures," Dr. Raval said. There were also 94 children's units at general hospitals, where 35% of pyloromyotomies were done, as well as 662 general hospitals that accounted for the remaining 40% of surgeries.

"We see overall complications are lower at children's hospitals and at children's units," Dr. Raval said. The overall complication rate was 1.8%. Freestanding children's hospitals had the lowest unadjusted complication rate, 1.2%, compared with 1.6% at children's units and 2.2% at general hospitals.

The difference could be a volume effect, he added. Children's hospitals averaged 30 pyloromyotomies per hospital per year in the study, compared with 13 at children's units and 2 at the general hospitals.

The administrative study data do not address some factors, such as extent of surgeon training or type of pyloromyotomy (laparoscopic vs. open), a potential limitation of the study. In addition, charges and costs are not identical, Dr. Raval said. ■

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