

# Complications and Costs for Obesity Surgery Declining

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A new study by the Department of Health & Human Services' (HHS) Agency for Healthcare Research and Quality (AHRQ) found that the average rate of post-surgical and other complications in patients who have obesity surgery, also known as bariatric surgery, declined 21 percent between 2002 and 2006. They also found that payments to hospitals dropped by as much as 13 percent for bariatric surgery patients during that time period, in part because fewer complications meant fewer readmissions.

The study, "Recent Improvements in Bariatric Surgery Outcomes," to be published in the May 2009 *Medical Care*, found that the complication rate among patients initially hospitalized for bariatric surgery dropped from approximately 24 percent to roughly 15 percent. Much of this was driven by a reduction in the post-surgical infection rate, which plummeted 58 percent. Abdominal hernias, staple leakage, respiratory failure and pneumonia fell by between 50 percent and 29 percent.

Rates for other complications, such as ulcers, dumping (involuntary vomiting or defecation), hemorrhage, wound reopening, deep-vein thrombosis and pulmonary embolism, heart attacks and strokes remained relatively unchanged. With the exception of the 19 percent rate for dumping, which is especially a risk in gastric bypass surgery, rates ranged from 2.4 percent to 0.1 percent.

In addition, hospital payments for bariatric surgery patients, as a whole, fell from \$29,563 to \$27,905 and dropped from \$41,807 to \$38,175 for patients who experienced complications. Hospital payments for the most expensive patients—those who had to be readmitted because of complications—fell from \$80,001 to \$69,960.

"People considering an elective procedure need unbiased, science-based evidence of its benefits and risks," said AHRQ Director Carolyn M. Clancy, M.D. "All surgeries involve risks, but as newer technologies emerge and surgeons and hospitals gain experience, as this study shows, risks can decrease."

AHRQ researchers led by Senior Economist William E. Encinosa, Ph.D., compared complication rates among more than 9,500 patients under age 65 who underwent obesity surgery at 652 hospitals between 2001 and 2002 and between 2005 and 2006. They found that the complication rate fell in spite of an increase in the percentage of older and sicker patients having the operations. The proportion of patients over age 50 operated on by bariatric surgeons increased from 28 percent to 44 percent during the period, and the average number of underlying illnesses in patients operated on by bariatric surgeons, such as diabetes, high blood pressure or sleep apnea, more than doubled.

The 6-month post-surgical death rate for patients operated on between 2005 and 2006 was 0.5 percent, statistically about the same as that of patients who had bariatric surgery between 2001 and 2002. Hospital readmissions because of complications fell 31 percent, from roughly 10 percent to 7 percent, while complication-caused same-day hospital outpatient clinic visits declined from approximately 15 percent to 13 percent.

According to Dr. Encinosa, the improvements are largely due to a combination of three factors—increased use of laparoscopy, a technology that allows physicians to operate through small incisions; increased use of banding procedures without gastric bypass, such as vertical-banded gastroplasty and lap band; and increased surgeon experience arising from the growth in the number of bariatric surgeries performed by hospitals. For example, laparoscopy reduced the odds of having a complication by 30 percent and drove down hospital payments by 12 percent, while banding reduced hospital payments by 20 percent.

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