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Bariatric surgical center accreditation improves patient survival and postop complications

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Patients who underwent weight loss operations in recent years, when most bariatric surgical centers were accredited, had fewer postoperative complications and were 2.3 times less likely to die in the hospital than patients who had bariatric procedures performed before a national movement toward facility accreditation was taking place, according to new study findings. Study authors, who published their results in the September issue of the *Journal of the American College of Surgeons*, say these findings suggest that accreditation of bariatric surgery centers contributes to improved safety for patients who undergo weight loss operations and saves lives.

"The patient's most important concern is, am I going to survive this operation?" said study coinvestigator Ninh T. Nguyen, MD, FACS, professor of surgery and chief of the Gastrointestinal Surgery Division, University of California Irvine Health, Orange, Calif. "We found that death is very uncommon when the operation takes place at an accredited facility, meaning it has met rigorous standards for high-quality surgical care."

A surgical approach is now widely considered a very effective treatment for severe obesity. Potential benefits of bariatric operations include substantial long-term weight loss, an improvement or reversal of Type 2 diabetes, and improved risk factors for heart disease, according to the American Society for Metabolic and Bariatric Surgery (ASMBS).*

Common bariatric procedures include the Roux-en-Y gastric bypass, gastric banding, and sleeve gastrectomy.

For the study, Dr. Nguyen and his coworkers evaluated outcomes of 775,040 bariatric surgical patients included over a 10-year period in the Nationwide Inpatient Sample, the largest U.S. inpatient care database. They found a significant improvement in outcomes in the latter part of the decade compared to the initial part of the decade, and the mere presence of a facility accreditation was associated with improved patient results.

As a group, Medicare patients had more preexisting health problems (comorbidities), such as diabetes, heart failure, and chronic lung disease, than non-Medicare patients did. Overall, they also fared worse after bariatric operations than non-Medicare patients did; findings that other studies also have found, Dr. Nguyen said. Medicare beneficiaries made up about 16 percent of patients who underwent bariatric operations.

In February 2006 the Centers for Medicare and Medicaid Services (CMS) ruled to limit coverage for bariatric operations to only those performed at accredited facilities. However, the agency reversed its decision a year ago, a ruling opposed by the American College of Surgeons (ACS), the ASMBS, and several other surgical and medical organizations.

Accreditation ensures that the facility has the proper infrastructure, equipment, personnel training, and experience with the procedure, as well as other important standards of care, Dr. Nguyen said.

Thus, in order to find whether accreditation status affects outcomes of bariatric procedures among Medicare recipients, the researchers assessed inhospital deaths and other serious complications before (2001 to 2005) and after (2006 to 2010) CMS implemented its National Coverage

Determination mandating facility accreditation.

In an effort to eliminate confounding variables that may come into play during these two periods, such as increased implementation of laparoscopic procedures, the investigators also examined the outcomes of accredited versus nonaccredited centers specifically in the latter years, 2006 to 2010. Accreditation of bariatric surgical centers began in 2005, and an estimated 85 percent of bariatric surgical centers held accreditation in 2006, according to Dr. Nguyen.

Serious complications tracked by the researchers included heart attack, stroke, acute kidney failure, acute respiratory failure, complications of the surgical wound, and a leak from the anastomosis, the new connection that gastric bypass creates in the intestines.

The percentage of Medicare beneficiaries who had serious complications decreased from nearly 10 percent between 2001 and 2005 to below 7 percent between 2006 and 2010. On average, the hospital stay decreased from four days to three days during those periods, study data showed.

Most importantly, Medicare patients had a 59 percent reduced chance of dying of bariatric surgical complications before implementation of the 2006 CMS National Coverage Determination compared to after the determination (mortality of 0.23 percent in 2006 to 2010 versus 0.56 percent in the earlier period).

For Medicare patients, the investigators found an in-hospital mortality rate in 2006 to 2010 of 0.23 percent, or one death in every 435 patients undergoing bariatric operations at accredited facilities. In contrast, one of every 178 bariatric surgical patients died in 2001 to 2005 (0.56 percent), when few facilities held accreditation.

During the decade under study, Dr. Nguyen said bariatric procedures

changed from primarily open, large-incision operations to most procedures being performed using minimally invasive laparoscopic techniques, a change that could have helped lower the complication rate. To control for this change and other factors that could influence the results, the researchers separately analyzed the outcomes of more than 259,000 non-Medicare patients who underwent bariatric stomach stapling procedures at either accredited or nonaccredited centers from 2006 to 2010.

Even with the use of similar surgical techniques during the same years, nonaccredited bariatric surgical facilities had a 3.53 times higher rate of in-hospital mortality than accredited facilities did.

Currently more than 700 bariatric surgery centers throughout the U.S. are accredited or seeking accreditation through the Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program (MBSAQIP), a combined surgical quality program of the ACS and the ASMBS.

"I suggest that patients considering a bariatric operation look for, and go to, an accredited bariatric center," Dr. Nguyen said. "The accrediting body already did the homework for the patient. The patient essentially needs to ask only one question [to learn the facility's capabilities]: Is this an MBSAQIP-accredited center?"

Another important finding of the study, according to Dr. Nguyen, is that the 2006 CMS requirement for facility accreditation did not decrease Medicare patients' access to this type of surgical care, as some opponents of the requirement suggested it might. In the first five years after the mandate for accreditation, the investigators found a 71 percent increase in the volume of bariatric operations performed.

Speculating on the many probable reasons for the observed increase, Dr.

Nguyen said that greater availability of accredited facilities might have been a motivating factor: "Accreditation may have helped patients feel safe about having this operation."

The other study authors were Monica T. Young, MD; Mehraneh D. Jari, MD; Alana Gebhart; and Michael J. Phelan, PhD.

More information: *American Society for Metabolic and Bariatric Surgery. Benefits of bariatric surgery. asmbs.org/patients/benefits-of-bariatric-surgery. Accessed September 2, 2014.

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