Coding Complex Bariatric Surgery

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Bariatric, or weight-loss, surgery is a rapidly evolving specialty. From jejunocolic and jejuno-ileal bypass procedures, through the days of minimally invasive procedures such as gastric balloons and endoscopic-banded gastroplasty, to today's procedures that involve both gastroplasty and partial intestinal bypass, bariatric surgeries have become increasingly complex. This article will examine biliopancreatic diversion with duodenal switch (BPD-DS), the most complex of the currently performed surgeries, as well as Roux-en-Y gastric bypass (RNY-GB), one of the most commonly performed procedures, and one that shares similarities with BPD-DS.

BPD-DS

Biliopancreatic diversion with duodenal switch incorporates both a restrictive and a malabsorptive component, which is characteristic of complex bariatric procedures. The restrictive component consists of a partial gastrectomy in which the stomach is divided along the greater curvature, reducing the size of the stomach. The remaining stomach is much larger than that created by a vertical banded gastroplasty and has a postsurgical capacity of about 25 percent of the presurgical capacity. The mean gastric volume is about 350 ml following the procedure. Of course, the fact that a portion of the stomach is removed, rather than simply occluded, makes the procedure irreversible. The pyloric valve is left intact, which helps eliminate the possibility of dumping syndrome, marginal ulcers, stoma closures, and blockages that may occur with gastroplasty procedure.

The duodenal switch procedure retains a portion of the duodenum, the short, thick beginning portion of the small intestine, starting at the lower end of the stomach (the pylorus) and extending to the jejunum in the functional food stream. This means that food is digested normally in the stomach before being excreted through the pyloric valve into the small intestine. Because the food has been digested to a readily absorbable consistency in the large stomach remnant, essential nutrients such as protein and calcium are more easily absorbed by what is left of the small intestine.

During the malabsorptive component of the procedure, the small intestine is essentially separated into two channels, reducing the amount of intestine available to absorb fats. The stomach is connected to the last 250 centimeters (eight feet) of small intestine, which maintains continuity with the colon. This represents the so-called "alimentary limb" of the bypass. The remainder of the small intestine, the "biliary limb," is connected 75 to 100 centimeters from the end of the small bowel, forming the common channel or common loop, where food mixes with the digestive enzymes. From here, the food passes into the large intestine, and the remainder of the digestive process is unaltered.

Roux-en-Y Gastric Bypass

Roux-en-Y gastric bypass is one of the most frequently performed weight-loss surgeries in the US. Like BPD-DS, it combines both a restrictive and a malabsorptive component. In this procedure, stapling produces a small (15 to 20 cc) gastric pouch. This is a much smaller pouch than that created by BPD-DS, where the gastric remnant is about the size of an average banana. Some surgeons prefer to create a larger proximal pouch, sometimes as large as 60 cc.[1] The remainder of the stomach is not removed, as in BPD-DS, but is completely stapled shut and divided from the stomach pouch, thus making the procedure theoretically reversible.

The outlet from this newly formed pouch empties directly into the lower portion of the jejunum, bypassing the duodenum, the area of maximal fat calorie absorption. This is done by dividing the small intestine just beyond the duodenum for the purpose of bringing it up and constructing a connection with the newly formed stomach pouch. The loop is 150 cm or less in length in a standard Roux-en-Y anastomosis. The other end is connected into the side of the Roux limb of the intestine, creating the "Y" shape that gives the technique its name. The length of either segment of the intestine can be increased to produce lower or higher levels of malabsorption.

Laparoscopic Roux-en-Y and BPD-DS

Both Roux-en-Y gastric bypass and biliopancreatic diversion duodenal switch procedures can, at least theoretically, be performed either open or laparoscopically. The Roux-en-Y procedure is usually performed laparoscopically, whereas BPD-DS is most often performed open through a six- to eight-inch vertical incision. Although a laparoscopic BPD-DS is considered a technically feasible procedure and is frequently performed at some facilities, it does not yet have a specific CPT code.[2]

Coding for BPD-DS

The CPT codebook was substantially expanded in 2005 to reflect the newer, more complex bariatric surgical procedures. Code 43644, Laparoscopy, surgical, gastric restrictive procedure; gastric bypass and Roux-en-Y gastroenterostomy (roux limb 150 cm or less), describes RNY-GB when performed laparoscopically, the standard procedure. If this surgery is performed open, the appropriate code is 43846, Gastric restrictive procedure, with gastric bypass for morbid obesity; with short limb (150 cm or less) Roux-en-Y anastomosis.

Code 43845, Gastric restrictive procedure with partial gastrectomy, pylorus-preserving duodenoileostomy and ileoileostomy (50 to 100 cm common channel) to limit absorption (pancreatic diversion with duodenal switch – BPD-DS), describes the open BPD-DS procedure.

ICD-9-CM coding for BPD-DS is 43.89, 45.51, and 45.91. Coding for RNY-GB is 44.38 if performed via the laparoscope and 44.39 if open.

Reimbursement for Roux-en-Y and BPD-DS

For hospitals, Medicare reimburses all these procedures on an inpatient basis only, as they are deemed too complex to be performed on an outpatient basis. All are highly invasive in nature and require significant postoperative recovery time. The codes all group to DRG 288, OR Procedures for Obesity, with a relative weight of 2.1291.

For physician reimbursement, the codes have the following relative value units (RVUs):

- 43644, Laparoscopy, surgical, gastric restrictive procedure; gastric bypass and Roux-en-Y gastroenterostomy (roux limb 150 cm or less)—42.17 total nonfacility RVU
- 43846, Gastric restrictive procedure, with gastric bypass for morbid obesity; with short limb (150 cm or less) Roux-en-Y anastomosis—37.16 total nonfacility RVU
- 43845, Gastric restrictive procedure with partial gastrectomy, pylorus-preserving duodenoileostomy and ileoileostomy (50 to 100 cm common channel) to limit absorption (pancreatic diversion with duodenal switch – BPD-DS)—no RVU, as this was a completely new code for 2005

Insurance Coverage for Bariatric Surgery

Most private insurance companies will cover bariatric surgical procedures if the patient meets the standard criteria for morbid obesity listed below.

The medical necessity of weight loss surgery is established by proving:

- The patient is morbidly obese and has a body mass index (BMI) of 40 or higher. A 5'4" female who weighs 233 pounds would have a BMI of 40. Similarly, a 6' male who weighs 295 pounds would also have a BMI of 40.
- The patient has been obese for the past five years or longer.
- The patient has attempted, under a physician's care, other methods of weight loss for at least two years. These may include behavior modification, Optifast, Medifast, drug therapy, Overeaters Anonymous, and diet centers.
- The patient has comorbidities such as hypertension, diabetes, sleep apnea, degenerative arthritis, and heart disease that merit consideration of medical necessity for surgery.

Contraindications to Bariatric Surgery

Absolute contraindications to bariatric surgery are active substance abuse and psychiatric personality disorders, which may include schizophrenia, borderline personality disorder, active suicidal ideation, or uncontrolled depression. Previous abdominal surgeries or previous bariatric procedures that functionally were ineffective are not necessarily contraindications.[3] Bariatric surgery, especially procedures that alter the size of the stomach to restrict food intake, may exacerbate eating disorders, and a history of true anorexia nervosa is generally considered a contraindication.[4]

Both BPD-DS and RNY-GB are bariatric surgery procedures that combine a reduction in the size of the stomach (restrictive component) with a reduction in the length of functional small intestine (malabsorptive component). Both procedures are considered inpatient procedures by Medicare, but both are widely covered by both Medicare and private insurance companies.

Notes

1. Penn State Surgical Weight Loss Program. "Surgical Treatments." Available online at www.hmc.psu.edu/gastric-bypass/services/roux.htm.
2. Kim, W.W., M. Gagner, S. Kini, W.B. Inabnet, T. Quinn, D. Herron, and A. Pomp. "Laparoscopic vs. Open Biliopancreatic Diversion with Duodenal Switch: A Comparative Study." *Journal of Gastrointestinal Surgery* 7 (May–June 2003): 552–57.
3. Barrow, Cynthia J. "Roux-en-Y Gastric Bypass for Morbid Obesity—Home Study Program." *AORN Journal* 76, no. 4 (October 2002): 593–604.
4. Choban, Patricia Smith, Benita Jackson, Steve Poplawski, and Peter Bistolarides. "Bariatric Surgery for Morbid Obesity: Why, Who, When, How, Where, and Then What?" *Cleveland Clinic Journal of Medicine* 69, no. 11 (2002): 897–903.

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