

<b>CLINICAL MEDICAL POLICY</b>	
<b>Policy Name:</b>	Bariatric Surgery
<b>Policy Number:</b>	MP-004-MD-DE
<b>Responsible Department(s):</b>	Medical Management
<b>Provider Notice Date:</b>	04/01/2019; 10/15/2018; 07/15/2018; 04/15/2018; 05/07/2016
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<b>Products:</b>	Highmark Health Options Medicaid
<b>Application:</b>	All participating hospitals and providers
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**DISCLAIMER**

**Highmark Health Options medical policy is intended to serve only as a general reference resource regarding coverage for the services described. This policy does not constitute medical advice and is not intended to govern or otherwise influence medical decisions.**

**POLICY STATEMENT**

Highmark Health Options may provide coverage under the medical-surgical benefits of the Company's Medicaid products for medically necessary bariatric surgical procedures for patients who are 18 years of age or older and diagnosed with persistent morbid obesity for at least two years (24 months).

This policy is designed to address medical necessity guidelines that are appropriate for the majority of individuals with a particular disease, illness or condition. Each person's unique clinical circumstances warrant individual consideration, based upon review of applicable medical records. Bariatric surgery in children and adolescents may be covered under the Delaware Medicaid fee schedule, if medically necessary. Requests are considered on a case-by-case basis.

Routine cholecystectomy performed in conjunction with bariatric surgery is considered medically necessary. A liver biopsy, upper gastrointestinal (UGI) endoscopy, and esophagogastroduodenoscopy (EGD) are considered integral components of all bariatric procedures and are not eligible for separate payment when reported on the same day as the bariatric surgical procedure.

The qualifications of the policy will meet the standards of the National Committee for Quality Assurance (NCQA) and the Delaware Department of Health and Social Services (DHSS) and all applicable state and federal regulations.

**DEFINITIONS**

**Roux-en-Y Gastric Bypass (RYGBP)** – The RYGBP achieves weight loss by gastric restriction and malabsorption. Reduction of the stomach to a small gastric pouch (30 cc) results in feelings of satiety following even small meals. This small pouch is connected to a segment of the jejunum, bypassing the duodenum and very proximal small intestine, thereby reducing absorption. RYGBP procedures can be open or laparoscopic.

**Sleeve Gastrectomy** – A procedure performed by removing approximately 80% of the stomach. The remaining stomach is a tubular pouch that resembles a banana.

**Biliopancreatic Diversion with Duodenal Switch (BPD/DS)** – A procedure with two components. First, a smaller, tubular stomach pouch is created by removing a portion of the stomach, very similar to the sleeve gastrectomy. Next, a large portion of the small intestine is bypassed.

**Adjustable Gastric Banding (AGB)** – Also called a lap-band, an inflatable silicone device placed around the top portion of the stomach to treat obesity, intended to slow consumption of food and thus reduce the amount of food consumed.

**Vertical banded gastroplasty (VBG)** – Also known as stomach stapling, a form of bariatric surgery for weight control. The VBG involves using a band and staples to create a small stomach pouch.

**Classification of Overweight and Obesity by BMI**

	BMI	Obesity Class
Underweight	<18.5 kg/m <sup>2</sup>	
Normal weight	18.5 – 24.9 kg/m <sup>2</sup>	
Overweight	25.0 -29.9 kg/m <sup>2</sup>	
Obese	30.0 – 34.9 kg/m <sup>2</sup>	I
Obese	35.0 – 39.9 kg/m <sup>2</sup>	II
Extremely obese	40.0 and higher kg/m <sup>2</sup>	III

**PROCEDURES**

The following medical necessity criteria, A-F, must be met:

- A. The patient is 18 years of age or older; AND
- B. The patient must have morbid obesity as defined below:
  - 1) A BMI greater than or equal to 40; OR
  - 2) A BMI between 35 and 40, in conjunction with one or more comorbidities related to obesity such as:
    - a. Medically refractory hypertension (i.e., blood pressure greater than 140 mmHg systolic and/or 90 mmHg diastolic despite concurrent use of three anti-hypertensive agents); OR
    - b. Coronary artery disease with objective documentation (i.e., exercise stress test, radionuclide stress test, angiograph, stress echocardiography); OR
    - c. Uncontrolled hyperlipidemia not amendable to optimal conventional treatment; OR
    - d. Type 2 diabetes mellitus: OR

- e. Clinically significant obstructive sleep apnea (OSA) (i.e., patient meets criteria for treatment of OSA); OR
    - f. Obesity-hypoventilation syndrome (OHS); OR
    - g. Pickwickian syndrome ( a combination of OSA and OHS); OR
    - h. Pseudotumor cerebri; OR
    - i. Severe nonalcoholic steatohepatitis (NASH)
  - C. The obesity interferes with daily function to the extent that performance is severely curtailed; AND
  - D. Documented history of failure of medical weight loss documented as either participation in a physician supervised nutrition and exercise program OR multi-disciplinary surgical preparatory regimen for at least six consecutive months' duration; AND
  - E. Patient is not currently pregnant and/or breast feeding and has agreed to avoid pregnancy for at least one year post-surgical intervention; AND
  - F. The individual has participated in preoperative surgical care, directed and provided by the patient's physician or through a multidisciplinary surgical preparatory regimen, including ALL of the following components:
    - 1) A thorough medical history and physical examination; AND
    - 2) Consultation and instruction by a professional provider on low-calorie diets and an exercise program based on the individual's capability; AND
    - 3) An assessment by a psychologist or psychiatrist stating that there are no behavioral health contraindications to the bariatric surgery, postoperative follow-up care and nutrition guidelines. The presence of depression due to obesity is not normally considered a contraindication for bariatric surgery; AND
  - G. The patient has no specifically correctable cause for the obesity (e.g., endocrine disorder such as a normal TSH level)
2. Nutrition and Exercise Program
- A. Patient participation in a physician-supervised nutrition and exercise program must be documented in the medical record by an attending physician who supervised the patient's participation.
  - B. The nutrition and exercise program may be administered as part of the surgical preparative regimen, and participation in the nutrition and exercise program may be supervised by the surgeon who will perform the surgery or by another physician.
  - C. A physician's summary letter is not sufficient documentation. Documentation should include medical records of physician's contemporaneous assessment of the patient's progress throughout the course of the nutrition and exercise program.
  - D. For patients who participate in the physician-administered nutrition and exercise program (e.g., MediFast, OptiFast), program records documenting the patient's participation and progress may substitute for the physician medical record.
  - E. Nutrition and exercise program must be supervised and monitored by a physician working in cooperation with dietitians and/or nutritionists, with a substantial face-to-face component (must not be entirely remote).
  - F. The nutrition and exercise program must be a cumulative time period (determined by performing surgeon) a cumulative total of six months prior to surgery indicating the patient's commitment to lifestyle changes necessary post-bariatric surgery.
3. Eligible surgeries:
- A. Adjustable gastric banding, laparoscopic; OR
  - B. Sleeve gastrectomy, laparoscopic; OR

- C. Roux-en-Y gastric bypass with long limb (distal) (greater than 150 cm) (open or laparoscopic); OR
- D. Roux-en-Y gastric bypass with short limb (proximal) (150 cm or less) (open or laparoscopic); OR
- E. Biliopancreatic bypass with duodenal switch; OR
- F. A sleeve gastrectomy (laparoscopic) performed as part of a two-staged procedure is an eligible procedure for individuals who meet the following medical necessity criteria:
  - 1) The sleeve gastrectomy is part of a risk reduction strategy as part of the two-stage procedure; AND
  - 2) BMI greater than or equal to 50; AND
  - 3) The planned second-stage bariatric surgery procedure is to occur within 24 months following the first-stage sleeve gastrectomy procedure; AND
  - 4) History of failure of medical weight loss documented as either participation in a physician supervised nutrition and exercise program OR multi-disciplinary surgical preparatory regimen for at least six consecutive months' duration; AND
  - 5) The patient is not currently pregnant and/or breast feeding and has agreed to avoid pregnancy for at least one year postoperatively; AND
  - 6) An evaluation by a licensed mental health professional provider that specifically evaluates all of the following: any mental health or substance abuse conditions; the emotional readiness and ability of the individual to make and sustain lifestyle changes; and the adequacy of the individual's support system

**\*NOTE:** Routine cholecystectomy performed in conjunction with bariatric surgery is considered medically necessary. A liver biopsy, upper gastrointestinal (UGI) endoscopy, and esophagogastroduodenoscopy (EGD) are considered an integral component of all bariatric procedures and are not eligible for separate payment when reported on the same day as the bariatric surgical procedure.

#### 4. Repeat or Revised Bariatric Surgery

- A. Highmark Health Options considers revision of bariatric surgeries medically necessary to correct late complications. Complications include but are not limited to:
  - 1) Enteric fistula; OR
  - 2) Gastrogastric fistula associated with ulcers; OR
  - 3) Stricture/stenosis with dysphagia, solid food intolerance; OR
  - 4) Dehiscence of anastomoses or staple lines; OR
  - 5) Separation, disruption, or anastomotic leakage of a stapled/sutured areas; OR
  - 6) Wound separation; OR
  - 7) Refractory marginal ulcers; OR
  - 8) Obstruction, pouch dilatation, band erosion or band slippage when the complication causes pain, inability to eat or drink, or causes vomiting of prescribed meals.
- B. Repeat surgical procedures for revision or conversion to another surgical procedure for inadequate weight loss are considered medically necessary when the all the following criteria are met:
  - 1) The patient continues to meet all the medical necessity criteria for the bariatric surgery, including current preoperative nutritional assessment; AND
  - 2) There is documentation of compliance with the previously prescribed postoperative dietary and exercise program; AND
  - 3) Weight loss following the original surgery is less than 50% of the preoperative excess body weight, and weight remains at least 30% over the ideal body weight at least two years following the primary bariatric surgery procedure.

- C. Prior to consideration of a second bariatric procedure, patients who have undergone adjustable gastric banding must demonstrate that appropriate band manipulation/adjustments in conjunction with regular postoperative visits and nutritional compliance have failed to result in adequate weight loss.
5. Contraindications
- A. Prohibitive perioperative risk of cardiac complications due to cardiac ischemia or myocardial dysfunction
  - B. Severe chronic obstructive airway disease or respiratory dysfunction
  - C. Failure to cease tobacco use for at least six weeks prior to surgery
  - D. Psychological/psychiatric condition
    - 1) Schizophrenia, borderline personality disorder, suicidal ideation, severe or recurrent depression, or bipolar affective disorders with difficult-to-control manifestations (e.g., history of recurrent lapses in control or recurrent failure to comply with management regimen)
    - 2) Intellectual disability that prevents personally provided informed consent or the ability to understand and comply with a reasonable pre- and post-operative regimen
    - 3) Any other psychological/psychiatric disorder that, in the opinion of a psychologist/psychiatrist, imparts a significant risk of psychological/psychiatric decompensation or interference with long-term postoperative management.
  - E. History of significant eating disorders, including anorexia nervosa, bulimia, and pica (i.e., ingesting sand, clay, or other abnormal substances)
  - F. Hepatic disease with prior documented inflammation, portal hypertension, or ascites (i.e., fluid accumulation in the peritoneal cavity)
  - G. Severe hiatal hernia/gastroesophageal reflux (for purely restrictive procedures such as laparoscopic adjustable gastric banding)
  - H. Autoimmune and rheumatological disorders (including inflammatory bowel diseases and vasculitides) that will be exacerbated by the presence of intra-abdominal foreign bodies (for the laparoscopic adjustable gastric banding procedure)
  - I. Current drug and alcohol abuse
6. When services are not covered
- A. For conditions other than those listed above, scientific evidence has not been established.
  - B. Per ACOG (2009), bariatric surgery is considered experimental and investigational as a treatment for infertility.
  - C. Open and Laparoscopic Vertical-banded gastroplasty; OR
  - D. Open adjustable gastric banding; OR
  - E. Open sleeve gastrectomy; OR
  - F. Biliopancreatic diversion (BPD) **without** duodenal switch (DS); OR
  - G. Endoscopic procedures: StomaphyX™ device, or ROSE procedures; OR
  - H. Gastrointestinal liners (EndoBarrier®) have not received FDA approval and therefore remain unproven and not medically necessary for the treatment of obesity
7. Post-payment Audit Statement
- The medical record should include documentation that reflects the medical necessity criteria and is subject to audit by Highmark Health Options at any time pursuant to the terms of your provider agreement.
8. Place of Service

These procedures may be performed as either an inpatient or outpatient depending upon the individual patient's condition or comorbidities.

The following procedures are typically considered inpatient procedures:

- A. Biliopancreatic Diversion with Duodenal Switch
- B. Roux-en-Y Gastric Bypass
- C. Sleeve Gastrectomy
- D. Bariatric Revision Surgery

## **GOVERNING BODIES APPROVAL**

In 2001, the U.S. Food and Drug Administration (FDA) premarket approval for the LAP-BAND® System and the REALIZE™ indicates they are for use only in the severely obese adult patients. Devices that are used for laparoscopic adjustable gastric banding do not have FDA approval in the U.S. for individuals younger than age 18 years.

StomaphyX®, an endoscopically guided system, received FDA approval in 2007 and is indicated for use in endoluminal transoral tissue approximation, ligation in the GI tract.

## **CODING REQUIREMENTS**

Procedure Codes

Code 43843 should not be reported if there is a more specific bariatric surgery code within the code range listed below.

<b>CPT Codes</b>	<b>Description</b>
43236	Esophagogastroduodenoscopy, flexible, transoral; with directed submucosal injection(s), any substance
43253	Esophagogastroduodenoscopy, flexible, transoral; with transendoscopic ultrasound-guided transmural injection of diagnostic or therapeutic substance(s) (e.g., a nesthetic, neurolytic agent) or fiducial marker(s) (includes endoscopic examination of the esophagus, stomach, and either the duodenum or a surgically altered stomach where the jejunum is examined distal to the anastomosis)
43631	Gastrectomy, partial, distal; with gastroduodenostomy
43632	Gastrectomy, partial, distal; with gastrojejunostomy
43633	Gastrectomy, partial, distal
43634	Gastrectomy, partial, distal; with formation of intestinal pouch
43644	Laparoscopy, surgical, gastric restrictive procedure; with gastric bypass and Roux-en-Y gastroenterostomy (roux limb 150 cm or less)
43645	Laparoscopy, surgical, gastric restrictive procedure; with gastric bypass and small intestine reconstruction to limit absorption
43770	Laparoscopy, surgical, gastric restrictive procedure; placement of adjustable gastric restrictive device (gastric band and subcutaneous port components)
43771	Laparoscopy, surgical, gastric restrictive procedure; revision of adjustable
43772	Laparoscopy, surgical, gastric restrictive procedure; removal of adjustable gastric restrictive device component only
43773	Laparoscopy, surgical, gastric restrictive procedure; removal and replacement of adjustable gastric restrictive device component only
43774	Laparoscopy, surgical, gastric restrictive procedure; removal of adjustable gastric restrictive device and subcutaneous port components
43775	Laparoscopy, surgical, gastric restrictive procedure; longitudinal gastrectomy (e.g., sleeve gastrectomy)

43842	Gastric restrictive procedure, without gastric bypass, for morbid obesity, vertical-banded gastroplasty
43843	Gastric restrictive procedure, without gastric bypass, for morbid obesity, other than vertical-banded gastroplasty
43845	Gastric restrictive procedure with partial gastrectomy, pylorus-preserving duodenoileostomy and ileoileostomy (50 to 100 cm common channel) to limit absorption (biliopancreatic diversion with duodenal switch)
43846	Gastric restrictive procedure, with gastric bypass for morbid obesity with short limb (150 cm or less) Roux-en-Y gastroenterostomy
43847	;with small intestine reconstruction to limit absorption
43848	Revision, open, of gastric restrictive procedure for morbid obesity, other than adjustable gastric restrictive device (separate procedure)
43860	Revision of gastrojejunal anastomosis (gastrojejunostomy) with reconstruction, with or without partial gastrectomy or intestine resection, without vagotomy
43865	Revision of gastrojejunal anastomosis (gastrojejunostomy) with reconstruction, with or without partial gastrectomy or intestine resection, with vagotomy
43886	Gastric restrictive procedure, open, revision of subcutaneous port component only
43887	Gastric restrictive procedure, open; removal of subcutaneous port component only
43888	Gastric restrictive procedure, open; removal and replacement of subcutaneous port component only
S2083	Adjustment of gastric band diameter via subcutaneous port by injection or aspiration of saline
S9449	Weight management classes, non-physician provider, per session
S9451	Exercise classes, non-physician, per session
S9452	Nutrition classes, non-physician provider, per session
97802	Medical nutrition therapy; initial assessment and intervention, individual, face-to-face with the patient, each 15 minutes
97803	Medical nutrition therapy; re-assessment and intervention, individual, face-to-face with the patient, each 15 minutes
97804	Medical nutrition therapy; group (2 or more individual(s)), each 30 minutes

#### Diagnosis Codes

ICD-10 Codes	Description
<b>Group 1: Report the primary diagnosis, listed below:</b>	
E66.01	Morbid (severe) obesity due to excess calories
E66.2	Morbid (severe) obesity with alveolar hypoventilation
E66.09	Obesity, unspecified
E66.3	Overweight
E66.8	Other obesity
<b>Group 2: Report a secondary diagnosis code to identify the BMI, listed below:</b>	
Z68.35	Body Mass Index (BMI) 35.0 – 35.9 adult
Z68.36	Body Mass Index (BMI) 36.0 – 36.9, adult
Z68.37	Body Mass Index (BMI) 37.0 – 37.9, adult
Z68.38	Body Mass Index (BMI) 38.0 – 38.9, adult
Z68.39	Body Mass Index (BMI) 39.0 – 39.9, adult
Z68.41	Body Mass Index (BMI) 40.0 – 44.9, adult
Z68.42	Body Mass Index (BMI) 45.0 – 49.9, adult
Z68.43	Body Mass Index (BMI) 50 – 59.9, adult
Z68.44	Body Mass Index (BMI) 60.0 – 69.9, adult
Z68.45	Body Mass Index (BMI) 70 or greater
<b>Group 3: Report an additional secondary diagnosis code for Z68.35, Z68.36, Z68.37, Z68.38, Z68.39 listed below:</b>	

E11.00	Type 2 diabetes mellitus with hyperosmolarity without nonketotic hyperglycemic-hyperosmolar coma (NKHHC)
E11.01	Type 2 diabetes mellitus with hyperosmolarity with coma
E11.21	Type 2 diabetes mellitus with diabetic nephropathy
E11.22	Type 2 diabetes mellitus with diabetic chronic kidney disease
E11.29	Type 2 diabetes mellitus with other diabetic kidney complication
E11.311	Type 2 diabetes mellitus with unspecified diabetic retinopathy with macular edema
E11.319	Type 2 diabetes mellitus with unspecified diabetic retinopathy without macular edema
E11.3211	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, right eye
E11.3212	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, left eye
E11.3213	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, bilateral
E11.3219	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, unspecified eye
E11.3291	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, right eye
E11.3292	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, left eye
E11.3293	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, bilateral
E11.3299	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, unspecified eye
E11.3311	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, right eye
E11.3312	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, left eye
E11.3313	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, bilateral
E11.3319	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, unspecified eye
E11.3391	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, right eye
E11.3392	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, left eye
E11.3393	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, bilateral
E11.3399	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, unspecified eye
E11.3411	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, right eye
E11.3412	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, left eye
E11.3413	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, bilateral
E11.3419	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, unspecified eye



E11.3491	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, right eye
E11.3492	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, left eye
E11.3493	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, bilateral
E11.3499	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, unspecified eye
E11.3511	Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema, right eye
E11.3512	Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema, left eye
E11.3513	Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema, bilateral
E11.3519	Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema, unspecified
E11.3521	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, right eye
E11.3522	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, left eye
E11.3523	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, bilateral
E11.3529	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, unspecified eye
E11.3531	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, right eye
E11.3532	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, left eye
E11.3533	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, bilateral
E11.3539	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, unspecified
E11.3541	Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, right eye
E11.3542	Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, left eye
E11.3543	Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, bilateral
E11.3549	Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, unspecified
E11.3551	Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, right eye
E11.3552	Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, left eye
E11.3553	Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, bilateral
E11.3559	Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, unspecified
E11.3591	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, right eye
E11.3592	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, left eye

E11.3593	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, bilateral
E11.3599	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, unspecified
E11.36	Type 2 diabetes mellitus with diabetic cataract
E11.37X1	Type 2 diabetes mellitus with diabetic macular edema, resolved following treatment, right eye
E11.37X2	Type 2 diabetes mellitus with diabetic macular edema, resolved following treatment, left eye
E11.37X3	Type 2 diabetes mellitus with diabetic macular edema, resolved following treatment, bilateral
E11.39	Type 2 diabetes mellitus with other diabetic ophthalmic complication
E11.40	Type 2 diabetes mellitus with diabetic neuropathy, unspecified
E11.41	Type 2 diabetes mellitus with diabetic mononeuropathy
E11.42	Type 2 diabetes mellitus with diabetic polyneuropathy
E11.43	Type 2 diabetes mellitus with diabetic autonomic (poly)neuropathy
E11.44	Type 2 diabetes mellitus with diabetic amyotrophy
E11.49	Type 2 diabetes mellitus with other diabetic neurological complication
E11.51	Type 2 diabetes mellitus with diabetic peripheral angiopathy without gangrene
E11.52	Type 2 diabetes mellitus with diabetic peripheral angiopathy with gangrene
E11.59	Type 2 diabetes mellitus with other circulatory complications
E11.610	Type 2 diabetes mellitus with diabetic neuropathic arthropathy
E11.618	Type 2 diabetes mellitus with other diabetic arthropathy
E11.620	Type 2 diabetes mellitus with diabetic dermatitis
E11.621	Type 2 diabetes mellitus with foot ulcer
E11.622	Type 2 diabetes mellitus with other skin ulcer
E11.628	Type 2 diabetes mellitus with other skin complications
E11.630	Type 2 diabetes mellitus with periodontal disease
E11.638	Type 2 diabetes mellitus with other oral complications
E11.641	Type 2 diabetes mellitus with hypoglycemia with coma
E11.649	Type 2 diabetes mellitus with hypoglycemia without coma
E11.65	Type 2 diabetes mellitus with hyperglycemia
E11.69	Type 2 diabetes mellitus with other specified complication
E11.8	Type 2 diabetes mellitus with unspecified complications
E11.9	Type 2 diabetes mellitus without complications
E13.00	Other specified diabetes mellitus with hyperosmolarity without nonketotic hyperglycemic-hyperosmolar coma (NKHHC)
E13.01	Other specified diabetes mellitus with hyperosmolarity with coma
E13.10	Other specified diabetes mellitus with ketoacidosis without coma
E13.11	Other specified diabetes mellitus with ketoacidosis with coma
E13.21	Other specified diabetes mellitus with diabetic nephropathy
E13.22	Other specified diabetes mellitus with diabetic chronic kidney disease
E13.29	Other specified diabetes mellitus with other diabetic kidney complication
E13.311	Other specified diabetes mellitus with unspecified diabetic retinopathy with macular edema
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E13.3212	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, left eye
E13.3213	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, bilateral
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E13.3291	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, right eye
E13.3292	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, left eye
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E13.3312	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, left eye
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E13.3392	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, left eye
E13.3393	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, bilateral
E13.3399	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, unspecified eye
E13.3411	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, right eye
E13.3412	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, left eye
E13.3413	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, bilateral
E13.3419	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, unspecified
E13.3491	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, right eye
E13.3492	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, left eye
E13.3493	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, bilateral
E13.3499	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, unspecified eye

E13.3511	Other specified diabetes mellitus with proliferative diabetic retinopathy with macular edema, right eye
E13.3512	Other specified diabetes mellitus with proliferative diabetic retinopathy with macular edema, left eye
E13.3513	Other specified diabetes mellitus with proliferative diabetic retinopathy with macular edema, bilateral
E13.3519	Other specified diabetes mellitus with proliferative diabetic retinopathy with macular edema, unspecified
E13.3521	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, right eye
E13.3522	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, left eye
E13.3523	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, bilateral
E13.3529	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, unspecified
E13.3531	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, right eye
E13.3532	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, left eye
E13.3533	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, bilateral
E13.3539	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, unspecified
E13.3541	Other specified diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, right eye
E13.3542	Other specified diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, left eye
E13.3543	Other specified diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, bilateral
E13.3549	Other specified diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, unspecified
E13.3551	Other specified diabetes mellitus with stable proliferative diabetic retinopathy, right eye
E13.3552	Other specified diabetes mellitus with stable proliferative diabetic retinopathy, left eye
E13.3553	Other specified diabetes mellitus with stable proliferative diabetic retinopathy, bilateral
E13.3559	Other specified diabetes mellitus with stable proliferative diabetic retinopathy, unspecified
E13.3591	Other specified diabetes mellitus with proliferative diabetic retinopathy without macular edema, right eye
E13.3592	Other specified diabetes mellitus with proliferative diabetic retinopathy without macular edema, left eye
E13.3593	Other specified diabetes mellitus with proliferative diabetic retinopathy without macular edema, bilateral
E13.3599	Other specified diabetes mellitus with proliferative diabetic retinopathy without macular edema, unspecified
E13.36	Other specified diabetes mellitus with diabetic cataract
E13.37X1	Other specified diabetes mellitus with diabetic macular edema, resolved following treatment, right eye

E13.37X2	Other specified diabetes mellitus with diabetic macular edema, resolved following treatment, left eye
E13.37X3	Other specified diabetes mellitus with diabetic macular edema, resolved following treatment, bilateral
E13.37X9	Other specified diabetes mellitus with diabetic macular edema, resolved following treatment, unspecified
E13.39	Other specified diabetes mellitus with other diabetic ophthalmic complication
E13.40	Other specified diabetes mellitus with diabetic neuropathy, unspecified
E13.41	Other specified diabetes mellitus with diabetic mononeuropathy
E13.42	Other specified diabetes mellitus with diabetic polyneuropathy
E13.43	Other specified diabetes mellitus with diabetic autonomic (poly)neuropathy
E13.44	Other specified diabetes mellitus with diabetic amyotrophy
E13.49	Other specified diabetes mellitus with other diabetic neurological complication
E13.51	Other specified diabetes mellitus with diabetic peripheral angiopathy without gangrene
E13.52	Other specified diabetes mellitus with diabetic peripheral angiopathy with gangrene
E13.59	Other specified diabetes mellitus with other circulatory complications
E13.610	Other specified diabetes mellitus with diabetic neuropathic arthropathy
E13.618	Other specified diabetes mellitus with other diabetic arthropathy
E13.620	Other specified diabetes mellitus with diabetic dermatitis
E13.621	Other specified diabetes mellitus with foot ulcer
E13.622	Other specified diabetes mellitus with other skin ulcer
E13.628	Other specified diabetes mellitus with other skin complications
E13.630	Other specified diabetes mellitus with periodontal disease
E13.638	Other specified diabetes mellitus with other oral complications
E13.641	Other specified diabetes mellitus with hypoglycemia with coma
E13.649	Other specified diabetes mellitus with hypoglycemia without coma
E13.65	Other specified diabetes mellitus with hyperglycemia
E13.69	Other specified diabetes mellitus with other specified complication
E13.8	Other specified diabetes mellitus with unspecified complications
E66.2	Morbid (severe) obesity with alveolar hypoventilation
E13.9	Other specified diabetes mellitus without complications
E78.00	Pure hypercholesterolemia, unspecified
E78.1	Pure hyperglyceridemia
E78.2	Mixed hyperlipidemia
E78.3	Hyperchylomicronemia
E78.4	Other hyperlipidemia
E78.5	Hyperlipidemia, unspecified
G47.33	Obstructive sleep apnea (adult) (pediatric)
G47.36	Sleep related hypoventilation in conditions classified elsewhere
G93.2	Benign intracranial hypertension
I10	Essential (primary) hypertension
I27.20	Pulmonary Hypertension, unspecified
I27.21	Secondary pulmonary arterial hypertension
I27.22	Pulmonary hypertension due to left heart disease
I27.23	Pulmonary hypertension due to lung diseases and hypoxia
I27.24	Chronic thromboembolic pulmonary hypertension
I27.29	Other secondary pulmonary hypertension
I43	Cardiomyopathy in diseases classified elsewhere

K21.0*	Gastro-esophageal reflux disease with esophagitis
K75.81	Nonalcoholic steatohepatitis (NASH)
<b>Report ONE or more of the following codes for surgical revisions or replacing : (43771, 43772, 43373, 43774, 43848, 43860, 43865, 43886, 43887, &amp; 43888):</b>	
K95.01	Infection due to gastric band procedure
K95.09	Other complications of gastric band procedure (dilated gastrojejunal stoma)
K95.81	Infection due to other bariatric procedure
K95.89	Other complications of other bariatric procedure (dilated gastrojejunal stoma)
Z46.51	Encounter for fitting and adjustment of gastric lap band
Z98.84	Bariatric surgery status

#### Non-covered Diagnosis Codes

Non-covered Diagnosis Codes ICD-10 Male Infertility Codes	Description	ICD-10 Female Infertility Codes	Description
N46.11	Organic Oligospermia	N97.0	Female Infertility associated with anovulation
N46.12	Oligospermia due to extratesticular causes	N97.1	Female Infertility of tubal origin
N46.121	Oligospermia due to drug therapy	N97.2	Female Infertility of uterine origin
N46.122	Oligospermia due to infection	N97.8	Female Infertility of other origin
N46.123	Oligospermia due to obstruction of efferent ducts	N97.9	Female infertility, unspecified
N46.124	Oligospermia due to radiation		
N46.125	Oligospermia due to systemic disease		
N46.129	Oligospermia due to extratesticular causes		
N46.8	Other male infertility		
N46.9	Male infertility, unspecified		

#### **REIMBURSEMENT**

Participating facilities will be reimbursed per their Highmark Health Options contract.

#### **SUMMARY OF LITERATURE**

Surgical treatment of obesity involves reducing functional gastric capacity and modifying intestinal anatomy to restrict caloric intake and/or induce malabsorption. Various surgical procedures that are intended for the treatment of morbid obesity have been developed, including combined restrictive and malabsorptive bariatric surgery (gastric bypass), gastric restrictive surgery and gastric malabsorption (biliopancreatic diversion) surgery. In addition to the individualizing an appropriate bariatric procedure to a specific patient, the method of the procedure must be chosen. According to Mechanick et al. (2013),

laparoscopic procedures are preferred over open procedures due to the postoperative morbidity and mortality.

Vertical banded gastroplasty (VBG), or stomach stapling is a surgical procedure of obesity that is outdated and rarely performed because it is among the oldest surgical weight loss procedures (Ferreira, 2013). Additionally, there is a high rate of reoperations and the reversal operation to the VBG procedure is very complex and intense (Dielen, 2005). The Biliopancreatic diversion bypass (BPD) without the duodenal switch have little evidence-based case series reported in the U.S. and was developed by Nicola Scopinaro (Mechanick, 2009). The BPD procedure may be associated with several serious postoperative complications, such as: protein-calorie malabsorption, steatorrhea, diarrhea, foul-smelling stools, severe bone pain, a variety of nutrient deficiencies and other metabolic derangements, and life-long dependency on supplemental vitamins and minerals (Mechanick, 2009). Additionally there have been case reports of liver damage, resulting either in death or live transplant (Mechanick, 2009). Modifications were made to the BPD procedure to create the Biliopancreatic diversion bypass with duodenal switch (BPD/DS) which has significantly diminished the more severe complications of BPD (Sudan, 2011).

Most surgeons require patients to lose some weight in preparation for surgery (Brinkley, 2017). Surgeons may encounter difficult challenges regarding an enlarged liver during weight loss surgery which can be minimized by preoperative weight loss to shrink the liver (Brinkley, 2017). Shrinking the liver permits easier access to the operative site and reduces the time spent in the operating room, as well as the time needed to recover (Brinkley, 2017). In addition to lowering the risks of surgery, there has been an analysis completed by Kaplan-Meier that revealed a relationship between preoperative weight loss and postoperative weight loss (Still, 2007). The time frames for diet guidelines will vary according to a patient's individual needs. For example, some surgeons will require a high protein, low calorie diet for up to six months before starting the liquid diet (Brinkley, 2017). The patient's specific regimen will depend on their preoperative weight and health condition (Brinkley, 2017).

The American Society for Metabolic and Bariatric Surgery (ASMBS) Pediatric Committee released best practice guidelines for treatment of obese adolescents in 2012. While the guidelines outlined acceptable criteria, the ASMBS stated that the available evidence-based literature was insufficient to identify recommendations for specific bariatric procedures. It was also noted that there is a lack of long-term follow-up on the risks of micronutrient and vitamin deficiencies.

In 2011, Keidar et al. performed a review of bariatric surgery in obese adolescents and indicated that evidenced-based literature was still lacking. The authors also stated that patient selection criteria, appropriate surgical procedures, and the extent of the multidisciplinary preoperative and postoperative care are not defined.

In 2013, Black et al. reported on a systematic review of the current state of peer-reviewed literature on the safety and effectiveness of bariatric surgery in obese adolescents. It was reported that while there were significant decreases in one-year follow-up BMI, the risk of complications has not been well defined and that long-term studies are needed to establish the harms and benefits of bariatric surgery in this patient population. Hofman (2013) reported that the evidence for bariatric surgery in children and adolescents is scarce and of poor quality. There are moral issues regarding performance of bariatric surgery in young individuals such as: too young to consent, lack of maturity, treatment end-points, hidden interests of patients, parents, professionals, industry and society. More evidence is needed to be able to balance benefits and risks, provide information for a valid consent or assent, and to advise minors and parents. According to Nobili et al. (2015), weight loss surgery should be the last resort in the pediatric population due to lack of consensus on appropriate bariatric surgical intervention selection criteria.

Research to date has not adequately addressed important issues specific for children and adolescents who may receive bariatric surgery. These issues would include the rate of complications, compliance with therapy, and the potential limitations in the lifespan of surgical interventions and the associated long-term metabolic consequences. Additional research is necessary to address these issues as well as subpopulations of adolescents who might particularly benefit from bariatric surgery.

Windover (2013) states that tobacco use persists as the leading cause of preventable death worldwide and is prevalent among bariatric surgical candidates. Based on the author's research, it is recommended that bariatric surgery centers establish a standard protocol that includes assessment of tobacco use and referrals for tobacco use treatment and intervention for individuals identified as at-risk future tobacco users. Finks et al. (2011) reported that there is an association between tobacco use and respiratory complications following bariatric surgery. Patients who smoked cigarettes within one year of having bariatric surgery were at increased risk for developing pneumonia. There is an increased incidence of developing marginal ulcers (AOR 30.6, 95% CI, 6.4-146,  $p < 0.001$ ) and wound dehiscence (OR 20.9, 95% CI, 1.1-411,  $p < 0.046$ ) postoperatively (Wilson et al. 2006). The latest evidence-based bariatric surgery guidelines recommend advising tobacco users to quit tobacco at least six weeks prior to bariatric surgery (Blackburn et al., 2009).

In 2013, Mechanick et al. updated the clinical practice guidelines for the perioperative nutritional, metabolic, and nonsurgical support of the bariatric surgical patient. Recommendations include that tobacco use should be avoided at all time by all patients. In particular, patients who smoke cigarettes should stop, preferably at least six weeks before bariatric surgery (Grade A; BEL 2, upgraded by consensus). In addition, patients should avoid tobacco use after bariatric surgery due to known increased risk of poor wound healing, anastomotic ulcer, and overall impaired health.

#### Update 2019

##### Two-Stage Bariatric Surgery Procedures

Due to the complexity, risks and complications associated with weight loss surgery, there is a subset of patients that may be considered to be very high-risk. The higher the BMI, the greater the risk. A higher BMI is associated with increased number of pre-existing medical conditions which increase surgical risk. Therefore, patients who are considered super morbidly obese are deemed as the riskiest patients.

Staged bariatric procedures have been proposed as a treatment option primarily for the 'super-obese' patient, defined as having a BMI greater than 50. Staged bariatric procedures refers to bariatric surgical procedure that is divided into two procedures. The first procedure is considered less of a surgical risk and is a gastric restrictive procedure which will initiate the weight loss process. This procedure is followed by a malabsorptive surgical procedure once an acceptable weight loss is achieved by the restrictive procedure.

The laparoscopic sleeve gastrectomy was originally utilized as the initial stage of the laparoscopic biliopancreatic diversion with a duodenal switch in super morbidly obese or high-risk patients (Madura & DiBaise, 2012). However, it was observed that several patients who underwent the surgery did not require a second malabsorptive surgery due to significant weight loss.

From a review of 36 studies and 2570 patients, it was determined that sleeve gastrectomy can be performed safely as a first stage or primary procedure (Brethauer et al 2009). In 2012, a study reported on the success of the laparoscopic sleeve gastrectomy (LSG) for the super obese patients (Eid et al. 2012).



The study reported on the longest follow-up LSG (2002-2004) stating the results prove that the procedure is effective, safe and durable. The mean BMI decreased from 66 kg/m<sup>2</sup> to 46 kg/m<sup>2</sup> at 73 months.

### Body Mass Index Charts

These tables were adapted from the clinical guidelines for the identification, evaluation, and treatment of overweight and obese adults and were prepared by the National Institutes of Health (NIH), National Heart, Lung, and Blood Institute.

#### Body Mass Index (BMI) chart for up to 287 pounds

To use this table, find the appropriate height in the left-hand column. Move across the row to a given weight. The number at the top of the column is the BMI for the selected height and weight. Pounds have been rounded off.

Height (inches)	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
58	91	96	100	105	110	115	119	124	129	134	138	143	148	153	158	162	167
59	94	99	104	109	114	119	124	128	133	138	143	148	153	158	163	168	173
60	97	102	107	112	118	123	128	133	138	143	148	153	158	163	168	174	179
61	100	106	111	116	122	127	132	137	143	148	153	158	164	169	174	180	185
62	104	109	115	120	126	131	136	142	147	153	158	164	169	175	180	186	191
63	107	113	118	124	130	135	141	146	152	158	163	169	175	180	186	191	197
64	110	116	122	128	134	140	145	151	157	163	169	174	180	186	192	197	204
65	114	120	126	132	138	144	150	156	162	168	174	180	186	192	198	204	210
66	118	124	130	136	142	148	155	161	167	173	179	186	192	198	204	210	216
67	121	127	134	140	146	153	159	166	172	178	185	191	198	204	211	217	223
68	125	131	138	144	151	158	164	171	177	184	190	197	203	210	216	223	230
69	128	135	142	149	155	162	169	176	182	189	196	203	209	216	223	230	236
70	132	139	146	153	160	167	174	181	188	195	202	209	216	222	229	236	243
71	136	143	150	157	165	172	179	186	193	200	208	215	222	229	236	243	250
72	140	147	154	162	169	177	184	191	199	206	213	221	228	235	242	250	258
73	144	151	159	166	174	182	189	197	204	212	219	227	235	242	250	257	265
74	148	155	163	171	179	186	194	202	210	218	225	233	241	249	256	264	272
75	152	160	168	176	184	192	200	208	216	224	232	240	248	256	264	272	279
76	156	164	172	180	189	197	205	213	221	230	238	246	254	263	271	279	287
	<b>Body Weight (pounds)</b>																

#### Body Mass Index chart for up to 443 pounds

To use this table, find the appropriate height in the left-hand column. Move across the row to a given weight. The number at the top of the column is the BMI for the selected height and weight. Pounds have been rounded off.

Height (inches)	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54
58	172	177	181	186	191	196	201	205	210	215	220	224	229	234	239	244	248	253	258
59	178	183	188	193	198	203	208	212	217	222	227	232	237	242	247	252	257	262	267
60	184	189	194	199	204	209	215	220	225	230	235	240	245	250	255	261	266	271	276
61	190	195	201	206	211	217	222	227	232	238	243	248	254	259	264	269	275	280	285
62	196	202	207	213	218	224	229	235	240	246	251	256	262	267	273	278	284	289	295

63	203	208	214	220	225	231	237	242	248	254	259	265	270	278	282	287	293	299	304
64	209	215	221	227	232	238	244	250	256	262	267	273	279	285	291	296	302	308	314
65	216	222	228	234	240	246	252	258	264	270	276	282	288	294	300	306	312	318	324
66	223	229	235	241	247	253	260	266	272	278	284	291	297	303	309	315	322	328	334
67	230	236	242	249	255	261	268	274	280	287	293	299	306	312	319	325	331	338	344
68	236	243	249	256	262	269	276	282	289	295	302	308	315	322	328	335	341	348	354
69	243	250	257	263	270	277	284	291	297	304	311	318	324	331	338	345	351	358	365
70	250	257	264	271	278	285	292	299	306	313	320	327	334	341	348	355	362	369	376
71	257	265	272	279	286	293	301	308	315	322	329	338	343	351	358	365	372	379	386
72	265	272	279	287	294	302	309	316	324	331	338	346	353	361	368	375	383	390	397
73	272	280	288	295	302	310	318	325	333	340	348	355	363	371	378	386	393	401	408
74	280	287	295	303	311	319	326	334	342	350	358	365	373	381	389	396	404	412	420
75	287	295	303	311	319	327	335	343	351	359	367	375	383	391	399	407	415	423	431
76	295	304	312	320	328	336	344	353	361	369	377	385	394	402	410	418	426	435	443
<b>Body Weight (pounds)</b>																			

**POLICY SOURCE(S)**

Aikenhead, A., Knai, C. and Lobstein, T. (2011). Effectiveness and cost-effectiveness of paediatric bariatric surgery: a systematic review. *Clinical Obesity*, 1: 12-25. doi: 10.1111/j.1758-8111.2010.00003x. . Accessed on February 10, 2016.

Alexandrou A, Felekouras E, Giannopoulos A, et al. What is the Actual Fate of Super-Morbid-Obese Patients Who Undergo Laparoscopic Sleeve Gastrectomy as the First Step of a Two-Stage Weight-Reduction Operative Strategy? *Obes Surg* 2012. Accessed on February 10, 2016.

Action on Smoking and Health Fact Sheet “Smoking and surgery”. March 2014. Accessed February 12, 2016.

American Society for Bariatric Surgery (ASBS). Rationale for the Surgical Treatment of Morbid Obesity. [ASBS Web site]. Original: 11/29/01. (Revised: 11/23/05). Accessed on February 10, 2016.

American Society for Metabolic and Bariatric Surgery (ASMBS) Clinical Issues Committee of the American Society for Metabolic and Bariatric Surgery. Updated Position Statement on Sleeve Gastrectomy as a Bariatric Procedure. [ASMBS Web site]. Revised 10/28/2011. Accessed February 10, 2016.

American Society for Bariatric Surgery (ASBS). Emerging Technologies and Clinical Issues Committees of the ASMBS. American Society for Metabolic and Bariatric Surgery Position Statement on emerging endosurgical interventions for treatment of obesity. [ASBS Web site]. January 2009. Accessed on February 10, 2016.

American College of Obstetricians and Gynecologists (ACOG). *Obstet Gynecol.* 2009; 113:1405-1413. Accessed February 10, 2016.

American Society for Metabolic & Bariatric Surgery. Updated Position Statement on Sleeve Gastrectomy as a Bariatric Procedure. Revised 03/14/2012. [Cited 01/14/2015]. Accessed on February 11, 2016.

Apers JA, Wens C, van Vlodrop V, et al. Perioperative outcomes of revisional laparoscopic gastric bypass after failed adjustable gastric banding and after vertical banded gastroplasty: experience with 107 cases and subgroup analysis. *Surg Endosc*. 2012 Sep 26. Accessed on February 10, 2016.

Alqahtani AR, Elahmedi M, Alamri H, et al. Laparoscopic Removal of Poor Outcome Gastric Banding with Concomitant Sleeve Gastrectomy. *Obes Surg*. 2013 Mar 6. Accessed in February 10, 2016.

Black JA, White B, Viner RM, Simmons RK. Bariatric surgery for obese children and adolescents: a systematic review and meta-analysis. *Obes Rev*. 2013; 14(8):634-44. Accessed on February 10, 2016.

Brinkley, M. Diet to Help You Lose Weight Before a Gastric Bypass, July 18, 2017. [LIVESTRONG.COM](http://LIVESTRONG.COM). Accessed on November 21, 2017.

Blackburn GL, Hutter MM, Harvey AM, et al. Expert panel on weight loss surgery: Executive report update. *Obesity (Silver Spring)*. 2009; 17(5):842–862.

Chiapaikao D, Schultheis M, Protyniak, et al. Analysis of reoperations after laparoscopic adjustable gastric banding. *JLS*. 2014; 18(4). Accessed on February 10, 2016.

Cobourn C, Mumford D, Chapman MA, Wells L. Laparoscopic gastric banding is safe in outpatient surgical centers. *Obes Surg*. 2010 April; 20(4):415-422. Accessed on February 10, 2016.

Dielen, F., Soeters, P.B., Greve, JW. Laparoscopic Adjustable Gastric Banding versus Open Vertical Banded Gastroplasty: A Prospective Randomized Trial. *Obesity Surgery*. November 2005. Accessed on November 29, 2017.

Ferreira, L.M. Vertical Banded Gastroplasty: What You Need To Know. *Obesity News Today*. 2013-2017. Accessed on November 29, 2017.

Fink JF, Kole KL, Yenumula PR, et al. Predicting risk for serious complications with bariatric surgery: results from the Michigan Bariatric Surgery Collaborative. *Ann Surg*. 2011 Oct; 254(4):633-40. Doi: 10.1097/SLA.0b013e318230058c. Accessed on February 12, 2016.

Foletto M. Sleeve gastrectomy as revisional procedure for failed gastric banding or gastroplasty. *Surg Obes Relat Dis*. 2010 Mar; 6(2):146-51. Accessed on February 10, 2016.

Hofman, B. (2013). Bariatric surgery for obese children and adolescents: a review of the moral challenges. *BMC Medical Ethics*, 14:18. doi:10.1186/1472-6939-14-18. Accessed on February 10, 2016.

International Sleeve Gastrectomy Expert Panel Consensus Statement: best practice guidelines based on experience of 12,000 cases. *Surgery for Obesity and Related Diseases*. 8 (2012):8-19. Accessed on February 10, 2016.

Kehagias, I, Karamanakos, SN, Argentou, M, Kalfarentzos, F. Randomized clinical trial of laparoscopic Roux-en-Y gastric bypass versus laparoscopic sleeve gastrectomy for the management of patients with BMI < 50 kg/m<sup>2</sup>. *Obes Surg*. 2011 Nov; 21(11):1650-6. PMID: 21818647. Accessed on February 11, 2016.  
Keidar A, Hect L, Weiss R. Bariatric surgery in obese adolescents. *Curr Opin Clin Nutr Metab Care*. 2011; 14(3):286-90. Accessed on February 10, 2016.

Karamanakos, SN, Vagenas, K, Kalfarentzos, F, Alexandrides, TK. Weight loss, appetite suppression, and changes in fasting and postprandial ghrelin and peptide-YY levels after Roux-en-Y gastric bypass and sleeve gastrectomy: a prospective, double blind study. *Ann Surg.* 2008 Mar; 247(3):401-7. PMID: 18376181. Accessed on February 11, 2016.

Mechanick, J.I., Kushner, R.F. Sugerma, H.J., Gonzalez-Compoy, J.M, et al. AMERICAN ASSOCIATION OF CLINICAL ENDOCRINOLOGISTS, THE OBESITY SOCIETY, AND AMERICAN SOCIETY FOR METABOLIC & BARIATRIC SURGERY MEDICAL GUIDELINES FOR CLINICAL PRACTICE FOR THE PERIOPERATIVE NUTRITIONAL, METABOLIC, AND NONSURGICAL SUPPORT OF THE BARIATRIC SURGERY PATIENT. *Obesity: A research Journal; Obesity Society; April 2009.* Accessed on November 29, 2017.

Mechanick, J. I., Youdim, A., Jones, D. B., Garvey, W. T., Hurley, D. L., McMahon, M. M., Heinberg, L. J., Kushner, R., Adams, T. D., Shikora, S., Dixon, J. B. and Brethauer, S. (2013), Clinical practice guidelines for the perioperative nutritional, metabolic, and nonsurgical support of the bariatric surgery patient—2013 update: Cosponsored by American association of clinical endocrinologists, The obesity society, and American society for metabolic & bariatric surgery. *Obesity*, 21: S1–S27. doi: 10.1002/oby.20461. Accessed on February 12, 2016.

Michalsky, M. P., et al. (2015). Cardiovascular risk factors in severely obese adolescents. *JAMA Pediatrics.* doi:10.1001/jamapediatrics.2014.3690. Accessed on February 10, 2016.

Mognol, P, Chosidow, D, Marmuse, JP. Laparoscopic sleeve gastrectomy as an initial bariatric operation for high-risk patients: initial results in 10 patients. *Obes Surg.* 2005 Aug; 15(7):1030-3. PMID: 16105402. Accessed February 11, 2016.

National Institute for Health and Care Excellence Website “Commissioning a smoking cessation service for people having elective surgery”. Accessed on February 12, 2016.

Nobili, V., et al. (2015). Indications and limitations of bariatric intervention in severely obese children and adolescents with and without non-alcoholic steatohepatitis. *Journal of Pediatric Gastroenterology and Nutrition.* doi:10.1097/MPG.0000000000000715. Accessed on February 10, 2016.

Nguyen NT, Hohmann S, Slone J, et al. Improved Bariatric Surgery Outcomes for Medicare Beneficiaries After Implementation of the Medicare National Coverage Determination. *Arch Surg.* 2010; 145(1):72-78. Accessed on February 10, 2016.

Nguyen XM, et al. A prospective randomized trial of laparoscopic gastric bypass versus laparoscopic adjustable gastric banding for the treatment of morbid obesity: outcomes, quality of life, and costs. *Ann Surg.* 2009; 250(4):631-41. Accessed on February 10, 2016.

Nguyen NT, Longoria M, Gelfand DV, et al. Staged laparoscopic Roux-en-Y: a novel two-stage bariatric operation as an alternative in the super-obese with massively enlarged liver. *Obes Surg.* 2005; 15(7):1077-81. Accessed February 10, 2016.

Nguyen NT, Rivers R, Wolfe BM. Factors associated with operative outcomes in laparoscopic gastric bypass. *J Am Coll Surg.* 2003; 197(4):548-55. Accessed February 10, 2016.

Peterli, R, Borbely, Y, Kern, B, et al. Early results of the Swiss Multicentre Bypass or Sleeve Study (SM-BOSS): a prospective randomized trial comparing laparoscopic sleeve gastrectomy and Roux-en-Y gastric

bypass. *Ann Surg.* 2013 Nov; 258(5):690-4; discussion 5. PMID: 23989054. Accessed on February 11, 2016.

Regan, JP, Inabnet, WB, Gagner, M, Pomp, A. Early experience with two-stage laparoscopic Roux-en-Y gastric bypass as an alternative in the super-super obese patient. *Obes Surg.* 2003 Dec; 13(6):861-4. PMID: 14738671. Accessed on February 11, 2016.

Sakorafas GH, Milingos D, Peros G. Asymptomatic cholelithiasis: is cholecystectomy really needed? A critical reappraisal 15 years after the introduction of laparoscopic cholecystectomy. *Dig Dis Sci.* 2007; 52(5):1313-25. Accessed on February 10, 2016.

Still, C.D., Benotti, P., Wood, G.C. Outcomes of Preoperative Weight Loss in High-Risk Patients Undergoing Gastric Bypass Surgery. *Arch Surg,* October 1, 2007; 142(10):994-998. Accessed on November 21, 2017.

Sudan, R., Jacobs, D.O. Biliopancreatic Diversion with Duodenal Switch. *Surgical Clinics of North America* 91(6):1281-93, ix; December 2011. Accessed on November 29, 2017.

Tarantino I, Warschkow R, Steffen T, Bisang P, et al. Is routine cholecystectomy justified in severely obese patients undergoing a laparoscopic Roux-en-Y gastric bypass procedure? A comparative cohort study. *Obes Surg.* 2011 Dec; 21(12):1870-8. doi: 10.1007/s11695-011-0495-x. Accessed on February 10, 2016.

Theadom A, Cropley M. Effects of preoperative smoking cessation on the incidence and risk of intraoperative and postoperative complications in adult smokers: a systematic review. *Tobacco Control,* 2006; 15: 352–8. Accessed February 12, 2016.

U.S. National Institutes of Health. *ClinicalTrials.gov.* A Prospective, Randomized Multicenter Study to Evaluate the Safety and Efficacy of the ReShape Duo™ Intra-gastric Balloon System in Obese Subjects. *ClinicalTrials.gov* Identifier: NCT01673698. Accessed February 10, 2016.

Vassallo C, Andreoli M, La Manna A, Turpini C. 60 reoperations on 890 patients after gastric restrictive surgery. *Obes Surg.* 2001; 11(6):752-6. Accessed February 10, 2016.

Windover AK. Tobacco use in bariatric patients. *Bariatric Times.* 2013; 10(1):8-11. Accessed on February 12, 2016.

Wilson JA, Romagnuolo J, Byrne TK, et al. Predictors of endoscopic findings after Roux-en-Y gastric bypass. *Am J Gastroent.* 2006; 101:2194–2199.

Winkle, CW. New Research: safety of adolescent bariatric surgery. *Theravive.* March 11, 2015. Accessed on January 27, 2016.

Zheng Y, Wang M, He S, et al. Short-term effects of intra-gastric balloon in association with conservative therapy on weight loss: a meta-analysis. *J Transl Med.* 2015; 13:246. Accessed on February 10, 2016.

Zellmer, JD, Mathiason, MA, Kallies, KJ, Kothari, SN. Is laparoscopic sleeve gastrectomy a lower risk bariatric procedure compared with laparoscopic Roux-en-Y gastric bypass? A meta-analysis. *American journal of surgery.* 2014 Dec; 208(6):903-10. PMID: 25435298. Accessed on February 11, 2016.

## Policy History

Date	Activity
06/07/2016	QI/UM Committee approval
11/01/2016	Provider effective date
02/13/2017	Policy reformatted; changed Operational Guideline from post-service to preservice, added Policy History box; added ICD-10 coding to policy;
03/14/2017	QI/UM Annual Review
08/09/2017	Coding/format revisions: Added Disclaimer Statement in opening of medical policy; Added Issue Date to opening policy box, retitled Procedure and Diagnosis Code tables; noted duplicate diagnosis codes in this policy and MP-009-MD-DE; Diagnosis code E66.0 removed as eligible per policy guidelines.
11/29/2017	<u>Clinical review revisions:</u> Definitions added for bariatric surgeries; criteria updates—preoperative diet requirements and comorbidities added to 1.B.2 including hyperlipidemia, Obesity-hypoventilation syndrome (OHS), Pickwickian syndrome ( a combination of OSA and OHS); criteria formatting updates; <b>removal of eligible surgeries:</b> vertical gastropasty and Biliopancreatic diversion (BPD) without duodenal switch (DS) and placed in none covered surgeries; contraindication added; <b>coding updates:</b> removal of CPT codes for null criteria; adding 1.b.2 comorbidity ICD-10 codes; reformatting ICD-10 codes
03/13/2018	QI/UM Committee Review Approval
04/17/2018	Coding revisions: CPT codes 43842 & 43843 were missing from covered procedure code section
04/24/2018	Revision: Removed the word 'Covered' from the procedure and diagnosis code tables under CODING REQUIREMENTS
05/15/2018	New provider effective date
06/19/2018	Revision: Procedure codes 97802, 97803, 97804 were added as eligible procedure codes in Attachment B. Deleted procedure codes 47000, 47001 & 47100 since they are not specific to bariatric procedures.
06/19/2018	QI/UM Committee Review Approval
08/15/2018	New Provider effective date
06/26/2018	Clarified CPT codes necessary for revision/replacement diagnosis codes in Attachment C: 43771, 43772, 43373, 43774, 43848, 43860, 43865, 43886, 43887, & 43888; Deleted invalid diagnosis codes N46.1 & N97 from Non-covered Diagnosis Code table in Attachment C
08/15/2018	Retro Provider Effective Date
03/12/2019	Annual Review: Clarified Operational Guidelines by adding medical necessity verbiage; Clarified CPT codes necessary for revision/replacement diagnosis codes in Attachment C: 43771, 43772, 43373, 43774, 43848, 43860, 43865, 43886, 43887, & 43888 and under the surgical revisions or replacement section, only one diagnosis code is required for procedure codes 43771, 43772, 43373, 43774, 43848, 43860, 43865, 43886, 43887, & 43888; Deleted invalid diagnosis codes N46.1 & N97 from Non-covered Diagnosis Code table in Attachment C; Added note to the Diagnosis Code table (Attachment C) instructing providers to select a diagnosis code for Group 1, Group 2 and Group 3.
03/12/2019	QI/UM Committee Approval

05/06/2019	Provider Effective Date
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