Corporate Medical Policy

Peroral Endoscopic Myotomy for Treatment of Esophageal Achalasia

File Name: peroral_endoscopic_myotomy_for_treatment_of_esophageal_achalasia
Origination: 11/2013
Last Review: 5/2022

Description of Procedure or Service

Esophageal achalasia is characterized by reduced numbers of neurons in the esophageal myenteric plexuses, that leads to reduced peristaltic activity. This reduction or absence in primary peristaltic waves takes place in the distal lower two thirds of the esophagus, that can make it difficult for individuals to swallow. Degeneration of the esophageal muscle in addition to the nerves that control these muscles can lead to complications such as regurgitation, coughing, choking, aspiration pneumonia, esophagitis, ulceration, and weight loss. The estimated prevalence in the United States of 10 cases per 100,000 with an incidence of 0.6 cases per 100,000 per year.

The three types of achalasia defined by the Chicago Classification include:

- Type I – Classic Achalasia – incomplete lower esophageal sphincter (LES) relaxation, aperistalsis and absence of esophageal pressurization with 100% failed peristalsis and a distal contractile integral (DCI) < 100mgHg.
- Type II – Incomplete LES relaxation, aperistalsis and panesophageal pressurization in at least 20% of swallows.
- Type III – (Spastic Achalasia) – Incomplete LES relaxation and premature contractions in at least 20% of swallows.

Treatment

Treatment options for achalasia have traditionally included pharmacotherapy such as injections with botulinum toxin, pneumatic dilation, and laparoscopic Heller myotomy. Although the last two are considered the standard treatments because of higher success rates and relative long-term efficacy compared with pharmacotherapy and botulinum toxin injections, they both are associated with a perforation risk of about 1%. Heller myotomy is the most invasive of the procedures, requiring laparoscopy and surgical dissection of the esophagogastric junction. One-year response rates of 86% and rates of major mucosal tears requiring subsequent intervention of 0.6% have been reported.

Peroral endoscopic myotomy (POEM) is an endoscopic procedure developed in Japan. POEM is performed with the patient under general anesthesia. An incision is made in the distal esophagus and a submucosal tunnel is created with the endoscope. The circular smooth muscle is then cut extending to the proximal stomach. POEM differs from laparoscopic surgery, which involves complete division of both circular and longitudinal muscle layers. Cutting the dysfunctional muscle fibers that prevent the LES from opening allows food to enter the stomach more easily.

Please note that the acronym POEM in this policy refers to peroral endoscopic myotomy. POEMS syndrome, which uses a similar acronym, is discussed in the policy Hematopoietic Cell Transplantation.

Regulatory Status

POEM uses available laparoscopic instrumentation and, as a surgical procedure, is not subject to regulation by the U.S. Food and Drug Administration (FDA).

Related Policies

Gastroesophageal Reflux Disease, Transendoscopic Therapies
Magnetic Esophageal Sphincter Augmentation to Treat Gastroesophageal Reflux Disease (GERD)

******Note: This Medical Policy is complex and technical. For questions concerning the technical language and/or specific clinical indications for its use, please consult your physician.***

Policy

Peroral endoscopic myotomy is considered medically necessary as a treatment for esophageal achalasia when it is determined to be medically necessary because the criteria and guidelines show below are met.

Benefits Application

This medical policy relates only to the services or supplies described herein. Please refer to the Member's Benefit Booklet for availability of benefits. Member's benefits may vary according to benefit design; therefore member benefit language should be reviewed before applying the terms of this medical policy.

When Peroral Endoscopic Myotomy for Treatment of Esophageal Achalasia is covered

Peroral endoscopic myotomy (POEM) may be considered medically necessary in patients 18 years and older when all the following criteria are met:

- The individual has an established diagnosis based on esophageal manometry of achalasia type I, II, or III; OR hypercontractile esophagus that has not improved after 3 months of treatment with a calcium channel blocker; OR esophagogastric junction outlet obstruction that has not improved after 6 months of observation; AND
- The procedure is being performed by a physician who has completed procedure-specific training for POEM with privileges to perform the procedure; AND
- An Eckardt symptom score is >3; AND
- The individual does not have a contraindication to the POEM procedure such as but not limited to the following:
    - Severe erosive esophagitis
    - Coagulation disorder
    - Liver cirrhosis
    - Esophageal malignancy
    - Prior therapy that weakens the esophageal mucosa or contributes to submucosal fibrosis, e.g. radiation therapy, mucosal resection or radiofrequency ablation.

When Peroral Endoscopic Myotomy for Treatment of Esophageal Achalasia is not covered

Peroral endoscopic myotomy is considered investigational when the above criteria are not met.

Policy Guidelines

The evidence for peroral endoscopic myotomy in patients who have achalasia includes systematic reviews of observational studies, randomized controlled trials, nonrandomized comparative studies, and case series. Relevant outcomes are symptoms, functional outcomes, health status measures, resource utilization, and treatment-related morbidity. The comparative studies primarily showed similar outcomes with peroral endoscopic myotomy (POEM) versus Heller myotomy in symptom relief, as assessed by the Eckardt score (Werner, et a.l, 2019). One study showed shorter length of stay and shorter operative time with similar outcomes with POEM compared to Heller myotomy (Costantini et al., 2020). Long-term follow up at four years after POEM showed durable symptom relief in 88% of patients (Campagna et al., 2021). The evidence is sufficient to determine the effects of the technology on health outcomes

Billing/Coding/Physician Documentation Information

This policy may apply to the following codes. Inclusion of a code in this section does not guarantee that it will be reimbursed. For further information on reimbursement guidelines, please see Administrative Policies on the Blue Cross Blue Shield of North Carolina web site at www.bcbsnc.com. They are listed in the Category Search on the Medical Policy search page.

Applicable codes: *43497*

BCBSNC may request medical records for determination of medical necessity. When medical records are requested, letters of support and/or explanation are often useful, but are not sufficient documentation unless all specific information needed to make a medical necessity determination is included.

Scientific Background and Reference Sources

BCBSA Medical Policy Reference Manual [Electronic Version]. 2.01.91, 9/12/13

Specialty Matched Consultant Advisory Panel – 4/2014

BCBSA Medical Policy Reference Manual [Electronic Version]. 2.01.91, 9/11/14

Specialty Matched Consultant Advisory Panel – 5/2015

Medical Director review--5/2015

BCBSA Medical Policy Reference Manual [Electronic Version]. 2.01.91, 11/12/15

Specialty Matched Consultant Advisory Panel – 5/2016

Medical Director review--5/2016

BCBSA Medical Policy Reference Manual [Electronic Version]. 2.01.91, 11/2016

Medical Director review - 11/2016

Specialty Matched Consultant Advisory Panel 5/2017

Medical Director review 5/2017

BCBSA Medical Policy Reference Manual [Electronic Version]. 2.01.91, 11/2017

Specialty Matched Consultant Advisory Panel 5/2018

Medical Director review 5/2018

BCBSA Medical Policy Reference Manual [Electronic Version]. 2.01.91, 11/2018

Specialty Matched Consultant Advisory Panel 5/2019

Medical Director review 5/2019

BCBSA Medical Policy Reference Manual [Electronic Version]. 2.01.91, 12/2019

Specialty Matched Consultant Advisory Panel 5/2020

Medical Director review 5/2020

BCBSA Medical Policy Reference Manual [Electronic Version]. 2.01.91, 12/2020

Specialty Matched Consultant Advisory Panel 5/2021

Medical Director review 5/2021

Campagna Raj, Cirera A., Homstrom, AL, et al. Outcomes of 100 Patients More than 4 Years After POEM for Achalasia. Ann Surg 2021; 273:1135.

Constantini A, Familiari P, Constantini M, et al. POEM Versus Laparoscopic Heller Myotomy in the Treatment of Esophageal Achalasia: A Case-Control Study From Two High Volume Centers Using the Propensity Score. J Gastrointest Surger. 2020 Mar; 24(3):505-515.

Werner, YB, Hakanson B, Martinek J, et al. Endoscopic or Surgical Myotomy in Patients with Idiopathic Achalasia N Engl J Med. 2019 DEC 5; 381(23):2219-2229.

Medical Director review 4/2022

Specialty Matched Consultant Advisory Panel 5/2022

Medical Director review 5/2022

Policy Implementation/Update Information

11/12/13 New policy developed. Peroral endoscopic myotomy for treatment of esophageal achalasia is considered investigational. Medical Director review 9/2013. (sk)

5/13/14 Specialty Matched Consultant Advisory Panel review 4/29/14. No change to Policy statement. (sk)

11/11/14 Reference added. Description section updated. Policy Guidelines section updated. No change to Policy statement. (td)

7/1/15 References updated. Specialty Matched Consultant Advisory Panel review 5/27/2015. Description section revised. Medical Director review 5/2015. Policy Statements remain unchanged. (td)

1/26/16 Policy Guidelines section revised. References updated. (td)

7/1/16 Specialty Matched Consultant Advisory Panel review 5/25/2016. Medical Director review 5/2016. No change to Policy Statement. (jd)

12/30/16 References updated. Medical Director review. (jd)

6/30/17 Specialty Matched Consultant Advisory Panel – 5/2017. Medical Director review-- 5/2017. (jd)

6/8/18 Specialty Matched Consultant Advisory Panel 5/2018. Medical Director review 5/2018. (jd)

5/28/19 Minor reformatting to Description section. References updated. Specialty Matched Consultant Advisory Panel 5/2019. Medical Director review 5/2019. (jd)

12/31/19 Minor revisions and references updated. Medical Director review 11/2019. (jd)

6/9/20 Specialty Matched Consultant Advisory Panel 5/2020. Medical Director review 5/2020. (jd)

6/1/21 References updated. Specialty Matched Consultant Advisory Panel 5/2021. Medical Director review 5/2021. (jd)

12/30/21 The following code was added to the Billing/Coding section effective 1/1/22: 43497. (jd)

5/17/22 Description section revised; added the 3 types of achalasia based on the Chicago Classification. Policy statement revised as follows: "Peroral endoscopic myotomy is considered medically necessary as a treatment for esophageal achalasia when it is determined to be medically necessary because the criteria and guidelines show below are met." When Covered section revised with medically necessary criteria for POEM. When Not Covered section revised as follows: "Peroral endoscopic myotomy is considered investigational when the above criteria are not met." Policy guidelines and references updated. Specialty Matched Consultant Advisory Panel 5/2022. Medical Director review 4/2022. (jd)

6/30/22 Policy title updated. Policy formatting updated to align with the new utilization management tool. No changes to policy statement or intent. (jd)