

PERORAL ENDOSCOPIC MYOTOMY (POEM)

Effective Date: June 13, 2016
Date Of Origin: May 11, 2016

Review Dates: 5/16, 5/17, 5/18
Status: Current

I. POLICY/CRITERIA

POEM procedure for esophageal achalasia may be a covered benefit when **all** of the following are met:

1. **Both** of the following are diagnostic for esophageal achalasia:
 - a. Barium esophagram with fluoroscopy, **AND**
 - b. Esophageal manometry with at least 2 of the following:
 - i. Aperistalsis
 - ii. High lower esophageal sphincter (LES) pressure: 130-150 mmHG
 - iii. Non-relaxing LES

2. **One** of the following:
 - a. Primary achalasia, **OR**
 - b. Failure of previous treatment of achalasia (e.g. Heller myotomy, botox, dilation)

3. **None** of the following:
 - a. severe pulmonary disease
 - b. esophageal irradiation
 - c. esophageal malignancy
 - d. bleeding disorders, including coagulopathy
 - e. recent esophageal surgery or endoscopic intervention, including endoscopic mucosal resection and endoscopic submucosal dissection
 - f. inability to tolerate general anesthesia

II. MEDICAL NECESSITY REVIEW

Required Not Required Not Applicable

III. APPLICATION TO PRODUCTS

Coverage is subject to member's specific benefits. Group specific policy will supersede this policy when applicable.

- ❖ **HMO/EPO:** *This policy applies to insured HMO/EPO plans.*
- ❖ **POS:** *This policy applies to insured POS plans.*
- ❖ **PPO:** *This policy applies to insured PPO plans. Consult individual plan documents as state mandated benefits may apply. If there is a conflict between this policy and a plan document, the provisions of the plan document will govern.*
- ❖ **ASO:** *For self-funded plans, consult individual plan documents. If there is a conflict between this policy and a self-funded plan document, the provisions of the plan document will govern.*
- ❖ **INDIVIDUAL:** *For individual policies, consult the individual insurance policy. If there is a conflict between this medical policy and the individual insurance policy document, the provisions of the individual insurance policy will govern.*
- ❖ **MEDICARE:** *Coverage is determined by the Centers for Medicare and Medicaid Services (CMS); if a coverage determination has not been adopted by CMS, this policy applies.*
- ❖ **MEDICAID/HEALTHY MICHIGAN PLAN:** *For Medicaid/Healthy Michigan Plan members, this policy will apply. Coverage is based on medical necessity criteria being met and the appropriate code(s) from the coding section of this policy being included on the Michigan Medicaid Fee Schedule located at: http://www.michigan.gov/mdch/0,1607,7-132-2945_42542_42546_42551-159815--,00.html. If there is a discrepancy between this policy and the Michigan Medicaid Provider Manual located at: http://www.michigan.gov/mdch/0,1607,7-132-2945_5100-87572--,00.html, the Michigan Medicaid Provider Manual will govern. If there is a discrepancy or lack of guidance in the Michigan Medicaid Provider Manual, the Priority Health contract with Michigan Medicaid will govern. For Medical Supplies/DME/Prosthetics and Orthotics, please refer to the Michigan Medicaid Fee Schedule to verify coverage.*

IV. BACKGROUND

Esophageal achalasia (EA) is an uncommon motility disorder of unknown etiology that is characterized by increased lower esophageal sphincter (LES) pressures and esophageal aperistalsis. The most common presenting symptoms include dysphagia (82% to 100%), regurgitation (56% to 97%), weight loss (30% to 91%), chest pain (17% to 95%), and heartburn (27% to 42%). When achalasia is suspected, a barium esophagram with fluoroscopy and esophageal manometry are used to detect loss of peristalsis in the lower esophagus. Achalasia develops in approximately 2000 adults annually in the United States. The condition is less common in children, with an incidence of 0.11 cases per 100,000 children (Vaezi and Richter, 1998; Eckardt and Eckardt, 2009; Moawad and Wong, 2010; Roll et al., 2010).

Peroral endoscopic myotomy (POEM) is a less invasive alternative to laparoscopic Heller myotomy (LHM) for treatment of EA. POEM is a natural orifice transmural endoscopic surgery (NOTES) technique. It is done by guiding an endoscope through the esophagus, making an incision in the mucosa, creating a

submucosal tunnel for access to the lower esophagus and gastroesophageal junction, and cutting the muscle fibers in the lower esophagus and proximal stomach. Internal incisions are closed with clips after myotomy is complete. POEM is performed in a sterile environment under general anesthesia.

POEM is performed in a sterile environment under general anesthesia. Broadly speaking, the POEM procedure can be divided into 4 distinct and consecutive parts: (1) mucosal incision and entry into the submucosa; (2) creation of the submucosal tunnel; (3) myotomy; and (4) closure of the mucosal incision. It should be noted that individual POEM operators may vary in their technique; however, most operative techniques will closely follow that of Inoue and colleagues (Inoue et al., 2010).

Rationale for developing the POEM procedure includes the ability to combine the minimal invasiveness of endoscopic procedures such as pneumatic dilation with the therapeutic goal of a surgical myotomy. Natural orifice surgery, such as POEM, aims to reduce procedure-related pain and return patients to regular activities sooner than surgeries requiring external incisions. Peroral endoscopic myotomy (POEM) is a less invasive alternative to laparoscopic Heller myotomy for treatment of esophageal achalasia. POEM is a natural orifice transmural endoscopic surgery (NOTES) technique. The technique involves guiding an endoscope through the esophagus, making an incision in the mucosa, creating a submucosal tunnel for access to the lower esophagus and gastroesophageal junction, and cutting the muscle fibers in the lower esophagus and proximal stomach. Internal incisions are closed with clips after myotomy is complete.

V. CODING INFORMATION

ICD-10 Diagnosis that may apply:

K22.0 Achalasia of cardia

CPT/HCPCS codes:

74246 Radiological examination, gastrointestinal tract, upper, air contrast, with specific high density barium, effervescent agent, with or without glucagon; with or without delayed images, without KUB

91010 Esophageal motility (manometric study of the esophagus and/or gastroesophageal junction) study with interpretation and report;

91013 Esophageal motility (manometric study of the esophagus and/or gastroesophageal junction) study with interpretation and report; with stimulation or perfusion (eg, stimulant, acid or alkali perfusion) (List separately in addition to code for primary procedure)

43499 Unlisted procedure, esophagus (*Explanatory notes must accompany claim*)

VI. REFERENCES

1. Ortega JA, Madureri V, Perez I. Endoscopic myotomy in the treatment of achalasia. *Gastrointest Endosc* 1980; 26: 8-10.
2. Inoue H, Minami H, Kobayashi Y, et al. Peroral endoscopic myotomy (POEM) for achalasia. *Endoscopy* 2010; 42: 265-71.
3. Romanelli JR, Desilets DJ, Earle DB. Pancreatic Pseudocystgastrostomy with a Peroral, Flexible Stapler: A Human NOTES™ Anastomosis in Two Patients. *Gastrointest Endosc*, 2008 Nov; 68(5), 981-7.
4. Sadowski DC, Ackah F, Jiang B, et al. Achalasia: incidence, prevalence, and survival. A population-based study. *Neurogastroenterol Motil.* 2010 Sep; 22 (9): e256-61.
5. Pasricha PJ, Hawari R, Ahmed I et al. Submucosal endoscopic esophageal myotomy: a novel experimental approach for the treatment of achalasia. *Endoscopy* 2007; 39: 761-4.
6. Sumiyama K, Gostout CJ, Rajan E, Bakken TA, Knipschild MA, Marler RJ. Submucosal endoscopy with mucosal flap safety valve. *Gastrointest Endosc.* 2007; 65 (4): 688–694.
7. Perretta S, Dallemagne B, Donatelli G, Diemunsch P, Marescaux J. Transoral endoscopic esophageal myotomy based on esophageal function testing in a survival porcine model. *Gastrointest Endosc.* 2011; 73(1): 111–116.
8. Inoue H, Kudo SE. Per-oral endoscopic myotomy (POEM) for 43 consecutive cases of esophageal achalasia. *Nihon Rinsho.* 2010 Sep; 68 (9): 1749-52.
9. Eleftheriadis N, Inoue H, Ikeda H, et al. Training in peroral endoscopic myotomy (POEM) for esophageal achalasia. *Ther Clin Risk Manag.* 2012; 8: 329-42.
10. Chiu PW, Wu JC, Teoh AY, et al. Peroral endoscopic myotomy for treatment of achalasia: from bench to bedside (with video). *Gastrointest Endosc* 2013; 77 (1): 29-38.
11. Zhou PH, Cai MY, Yao, LQ, et al. [Peroral endoscopic myotomy for esophageal achalasia: report of 42 cases] Article in Chinese. *Zhonghua Wei Chang Wai Ke Za Zhi.* 2011 Sep; 14 (9): 705-8.
12. Ren Z, Zhong Y, Zhou P, et al. Perioperative management and treatment for complications during and after peroral endoscopic myotomy (POEM) for esophageal achalasia (EA) (data from 119 cases). *Surg Endosc.* 2011 Nov; 26 (11): 3267-72.
13. Swanstrom LL, Kurian A, Dunst CM, et al. Long-term outcomes of an esophageal myotomy for achalasia: the POEM procedure. *Ann Surg* 2012 Oct; 256 (4): 659-67.
14. Hungness ES, Teitelbaum EN, Santos BF, et al. Comparison of perioperative outcomes between peroral endoscopic myotomy (POEM) and laparoscopic Heller myotomy. *J Gastrointest Surg* 2013 Feb; 17(2):228-35.

15. Von Renteln D, Inoue H, Minami H, et al. Peroral endoscopic myotomy for the treatment of achalasia: a prospective single center study. *Am J Gastroentrol.* 2012 Mar; 107 (3): 411-7.
16. Eckardt VF. Clinical presentations and complications of achalasia. *Gastrointest Endosc Clin N Am* 2001; 11: 281-92.
17. Hayes, Inc. Peroral Endoscopic Myotomy for Treatment of Esophageal Achalasia, December 2015
18. Hironari Shiwaku1 et. al. A prospective analysis of GERD after POEM on anterior myotomy Surg Endosc DOI 10.1007/s00464-015-4507-0

AMA CPT Copyright Statement:

All Current Procedure Terminology (CPT) codes, descriptions, and other data are copyrighted by the American Medical Association.

This document is for informational purposes only. It is not an authorization, certification, explanation of benefits, or contract. Receipt of benefits is subject to satisfaction of all terms and conditions of coverage. Eligibility and benefit coverage are determined in accordance with the terms of the member's plan in effect as of the date services are rendered. Priority Health's medical policies are developed with the assistance of medical professionals and are based upon a review of published and unpublished information including, but not limited to, current medical literature, guidelines published by public health and health research agencies, and community medical practices in the treatment and diagnosis of disease. Because medical practice, information, and technology are constantly changing, Priority Health reserves the right to review and update its medical policies at its discretion.

Priority Health's medical policies are intended to serve as a resource to the plan. They are not intended to limit the plan's ability to interpret plan language as deemed appropriate. Physicians and other providers are solely responsible for all aspects of medical care and treatment, including the type, quality, and levels of care and treatment they choose to provide.

The name "Priority Health" and the term "plan" mean Priority Health, Priority Health Managed Benefits, Inc., Priority Health Insurance Company and Priority Health Government Programs, Inc.