

Surgical Treatment for Achalasia

Date of Origin: 08/2015

Last Review Date: 04/27/2022

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Dates Reviewed: 08/2016, 08/2017, 04/2019, 04/2020, 04/2021, 05/2022

Developed By: Medical Necessity Criteria Committee

I. Description

For a diagnosis of achalasia confirmed by esophageal manometry, evidence demonstrates at least moderate certainty of at least moderate net benefit. Esophageal manometry is the gold standard for diagnosis of achalasia.

An evidence-based specialty society guideline supports treatment of achalasia with botulinum toxin injections, pneumatic dilation of the esophagus, esophageal myotomy with fundoplication, or, in rare cases, esophagectomy.

Prior to laparoscopic lower esophageal myotomy, of 262 patients with achalasia, 79% received botulinum toxin injections or pneumatic dilations, and 36% had both. At a mean follow-up of 32 months, 80% of patients indicated that their symptoms were greatly improved or resolved with myotomy, and 90% were satisfied with their outcome.

A meta-analysis of 17 studies (with a total of 761 patients) that compared botulinum toxin injection, pneumatic dilation, and surgical myotomy concluded that, based upon symptom recurrence rates, myotomy was the most effective alternative for the management of achalasia.

Myotomy of the lower esophageal sphincter consists of an external lengthwise incision of the muscular ring surrounding the sphincter. Myotomy can be performed either laparoscopically or as an open procedure, and may be performed in conjunction with esophagogastric fundoplasty to reduce the incidence of postoperative gastric reflux. Less invasive techniques such as peroral endoscopic myotomy and self-expanding stents are in development.

II. Criteria: CWQI HCS-0127

- A. OHSU Health Services covers surgical treatment for achalasia with **ALL** of the following;
 - a. Open or laparoscopic lower esophageal sphincter myotomy may be indicated when **ALL** of the following conditions are present:
 - i. Diagnosis of achalasia confirmed by esophageal manometry
 - ii. Failure of botulinum toxin to provide relief beyond 6 to 12 months

- iii. Other causes of dysphagia (e.g. peptic stricture, carcinoma, lower esophageal ring or extrinsic compression) ruled out by upper gastrointestinal endoscopy
 - iv. Progressive dysphagia for liquids and solids
 - v. Recurrent or persistent symptoms despite pharmacological therapy (e.g. calcium channel blockers, long-acting nitrates)
 - vi. Relative contraindications to pneumatic dilation, as indicated by **1 or more** of the following:
 - 1. Patient at high risk for pneumatic dilation procedure (e.g. previous gastroesophageal junction surgery, esophageal diverticula, distorted lower esophageal anatomy)
 - 2. Patient younger than 40 years facing lifelong dilation procedures
- b. Request is **Not** for the Per-oral Endoscopic Myotomy (POEM) procedure as it is considered experimental and investigational. No controlled studies have been performed to determine efficacy and safety. The POEM procedure is considered investigational until further randomized controlled studies have been performed and demonstrate efficacy and safety over the standard procedures.

III. Information Submitted with the Prior Authorization Request:

1. Chart notes documenting diagnosis and all current and past procedure/treatments.
2. The requested procedure description.

IV. CPT or HCPC codes covered:

Codes	Description
43279	Laparoscopy, surgical, esophagomyotomy (Heller type), with fundoplasty, when performed
43330	Esophagomyotomy (Heller type); abdominal approach
43331	Esophagomyotomy (Heller type); thoracic approach
43499	Unlisted procedure, esophagus (if NOT for the POEM procedure)
S2079	Laparoscopic esophagomyotomy (Heller type)

V. CPT or HCPC codes NOT covered:

Codes	Description
43499	Unlisted procedure, esophagus (when used with POEM procedure)

VI. Annual Review History

Review Date	Revisions	Effective Date
08/2015	New Criteria developed	08/26/2015
08/2016	Annual Review: No changes	08/31/2016
08/2017	Annual Review: Updated to new template and minor format changes	08/23/2017
04/2019	Annual Review – No changes	05/01/2019
04/2020	Annual Review: No content changes	05/01/2020
04/2021	Annual Review: No content changes	05/01/2021
04/2022	Annual Review: No changes	05/01/2022

VII. References

1. Vaezi MF, Pandolfino JE, Vela MF. ACG clinical guideline: diagnosis and management of achalasia. American Journal of Gastroenterology 2013;108(8):1238-49; quiz 1250. DOI: 10.1038/ajg.2013.196. (Reaffirmed 2014 Oct)
2. Boeckxstaens GE, Zaninotto G, Richter JE. Achalasia. Lancet 2014;383(9911):83-93. DOI: 10.1016/S0140-6736(13)60651-0.
3. Rosemurgy AS, Morton CA, Rosas M, Albrink M, Ross SB. A single institution's experience with more than 500 laparoscopic Heller myotomies for achalasia. Journal of the American College of Surgeons 2010;210(5):637-45, 645-7. DOI: 10.1016/j.jamcollsurg.2010.01.035.
4. Zaninotto G, et al. Randomized controlled trial of botulinum toxin versus laparoscopic Heller myotomy for esophageal achalasia. Annals of Surgery 2004;239(3):364-70.
5. Paidas C, Cowgill SM, Boyle R, Al-Saadi S, Villadolid D, Rosemurgy AS. Laparoscopic Heller myotomy with anterior fundoplication ameliorates symptoms of achalasia in pediatric patients. Journal of the American College of Surgeons 2007;204(5):977-83; discussion 983-6. DOI: 10.1016/j.jamcollsurg.2006.12.046.
6. Roll GR, Ma S, Gasper WJ, Patti M, Way LW, Carter J. Excellent outcomes of laparoscopic esophagomyotomy for achalasia in patients older than 60 years of age. Surgical Endoscopy 2010;24(10):2562-6. DOI: 10.1007/s00464-010-1003-4.
7. Abir F, Modlin I, Kidd M, Bell R. Surgical treatment of achalasia: current status and controversies. Digestive Surgery 2004;21(3):165-76. DOI: 10.1159/000079341.
8. Mayo D, Griffiths EA, Khan OA, Szymankiewicz MA, Wakefield CW, Thompson SK. Does the addition of a fundoplication improve outcomes for patients undergoing laparoscopic Heller's cardiomyotomy? International Journal of Surgery 2012;10(6):301-4. DOI: 10.1016/j.ijssu.2012.04.002.
9. Kurian AA, Bhayani N, Sharata A, Reavis K, Dunst CM, Swanstrom LL. Partial anterior vs partial posterior fundoplication following transabdominal esophagocardiomyotomy for achalasia of the esophagus: meta-regression of objective postoperative gastroesophageal reflux and dysphagia. JAMA Surgery 2013;148(1):85-90. DOI: 10.1001/jamasurgery.2013.409.

10. Swanstrom LL, Kurian A, Dunst CM, Sharata A, Bhayani N, Rieder E. Long-term outcomes of an endoscopic myotomy for achalasia: the POEM procedure. *Annals of Surgery* 2012;256(4):659-67. DOI: 10.1097/SLA.0b013e31826b5212.
11. Achem SR, Gerson LB. Distal esophageal spasm: an update. *Current Gastroenterology Reports* 2013;15(9):325. DOI: 10.1007/s11894-013-0325-5.
12. Maish MS. Esophagus. In: Townsend CM, Beauchamp RD, Evers BM, Mattox KL, editors. *Sabiston Textbook of Surgery*. 19th ed. Philadelphia, PA: Elsevier Saunders; 2012:1012-66.
13. Patti MG, Herbella FA. Fundoplication after laparoscopic Heller myotomy for esophageal achalasia: what type? *Journal of Gastrointestinal Surgery* 2010;14(9):1453-8. DOI: 10.1007/s11605-010-1188-9. [Context Link 1]
14. Rosemurgy A, et al. Laparoscopic Heller myotomy provides durable relief from achalasia and salvages failures after botox or dilation. *Annals of Surgery* 2005;241(5):725-33; discussion 733-5.
15. Wang L, Li YM, Li L. Meta-analysis of randomized and controlled treatment trials for achalasia. *Digestive Diseases and Sciences* 2009;54(11):2303-11. DOI: 10.1007/s10620-008-0637-8. [Context Link 1] View abstract...
16. Cheatham JG, Wong RK. Current approach to the treatment of achalasia. *Current Gastroenterology Reports* 2011;13(3):219-25. DOI: 10.1007/s11894-011-0190-z. [Context Link 1, 2, 3] View abstract...
17. Richter JE, Boeckxstaens GE. Management of achalasia: surgery or pneumatic dilation. *Gut* 2011;60(6):869-76. DOI: 10.1136/gut.2010.212423. [Context Link 1, 2] View abstract...
18. Weber CE, Davis CS, Kramer HJ, Gibbs JT, Robles L, Fisichella PM. Medium and long-term outcomes after pneumatic dilation or laparoscopic Heller myotomy for achalasia: a meta-analysis. *Surgical Laparoscopy, Endoscopy & Percutaneous Techniques* 2012;22(4):289-96. DOI: 10.1097/SLE.0b013e31825a2478. [Context Link 1] View abstract...
19. Chuah SK, Wu KL, Hu TH, Tai WC, Changchien CS. Endoscope-guided pneumatic dilation for treatment of esophageal achalasia. *World Journal of Gastroenterology* 2010;16(4):411-7. [Context Link 1] View abstract...

Appendix 1 – Applicable Diagnosis Codes:

Codes	Description
K22.0	Achalasia of cardia
K22.2	Esophageal obstruction
K22.4	Dyskinesia of esophagus
R13.0	Aphagia
R13.10	Dysphagia, unspecified
R13.11	Dysphagia, oral phase
R13.12	Dysphagia, oropharyngeal phase
R13.13	Dysphagia, pharyngeal phase
R13.14	Dysphagia, pharyngoesophageal phase

R13.19	Other dysphagia
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Appendix 2 – Centers for Medicare and Medicaid Services (CMS)

Medicare coverage for outpatient (Part B) drugs is outlined in the Medicare Benefit Policy Manual (Pub. 100-2), Chapter 15, §50 Drugs and Biologicals. In addition, National Coverage Determination (NCD) and Local Coverage Determinations (LCDs) may exist and compliance with these policies is required where applicable.

They can be found at: <http://www.cms.gov/medicare-coverage-database/search/advanced-search.aspx>.

Additional indications may be covered at the discretion of the health plan.

Medicare Part B Covered Diagnosis Codes (applicable to existing NCD/LCD):

Jurisdiction(s): 5, 8	NCD/LCD Document (s):
Not applicable	

NCD/LCD Document (s):

Medicare Part B Administrative Contractor (MAC) Jurisdictions		
Jurisdiction	Applicable State/US Territory	Contractor
F (2 & 3)	AK, WA, OR, ID, ND, SD, MT, WY, UT, AZ	Noridian Healthcare Solutions, LLC