

ENDOSCOPIC SUBMUCOSAL DISSECTION (ESD)

Effective Date: June 13, 2016

Review Dates: 5/16, 5/17, 5/18, 5/19

Date Of Origin: May 11, 2016

Status: Current

I. POLICY/CRITERIA

Endoscopic submucosal dissection (ESD) for gastrointestinal lesions may be a covered benefit when **all** of the following are met:

1. Lesion is deemed appropriate for ESD by one of the following:
 - a. Endoscopic ultrasound (EUS), OR
 - b. High magnification chromoendoscopy
2. **One** of the following clinical indications at any gastroenterologic region of origin:
 - a. Esophagus Region (must meet one of the following)
 1. Barrett's esophagus with high grade dysplasia with a visible lesion ≥ 20 mm
 2. Early esophageal cancers by EUS with a negative PET scan
 3. Submucosal masses ≥ 20 mm
 4. Esophageal polyps unable to be removed by snare techniques
 5. Recurrent High Grade Dysplasia or early cancer
 - b. Gastric Region (must meet one of the following)
 1. High grade dysplasia in non-pedunculated polyps ≥ 20 mm
 2. Early gastric cancer by EUS with negative PET scan
 3. Submucosal masses ≥ 20 mm
 4. Gastric polyps unable to be removed by snare techniques
 5. Recurrent high grade dysplasia or early cancer
 - c. Duodenal Region (must meet one of the following)
 1. High grade dysplasia polyps ≥ 20 mm
 2. Early duodenal cancer by EUS and negative PET scan
 3. Duodenal polyps unable to remove by snare techniques
 4. Recurrent high grade dysplasia or early cancer
 - d. Colorectal Region (must meet one of the following)
 1. Flat large polyps ≥ 20 mm
 2. Early colon or rectal cancer by EUS or high magnification chromoendoscopy
 3. Submucosal masses

4. Recurrent polyps ≥ 20 mm
3. None of the following:
 - a. Patients with involvement of the submucosa (Sm2 or beyond*) as demonstrated by EUS or high magnification chromoendoscopy
 - b. Poorly differentiated cancers
 - c. Patients who are deemed to be unsuitable for sedation by anesthesia
 - d. Patients with obvious metastasis
4. Pre-ESD evaluation by GI surgeon to discuss surgical options as alternative to ESD.

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_42543_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

ESD uses endoscopic resection that enables en-bloc removal of gastrointestinal lesions. The basic technique for the procedure is as follows: 1) Cautery is used to mark the perimeter of the lesion, 2) a lifting agent is injected into the submucosa around the perimeter of the lesion, 3) an electrosurgical knife is used to incise the mucosa and cut circumferentially around the lesion, 4) the submucosa beneath the lesion is injected and then the electrosurgical knife is used to dissect in a free-hand manner until the whole specimen has been completely resected, 5) a water jet and hemostatic forceps are used to wash and coagulate any bleeding that occurs during either the mucosal incision or submucosal dissection.

Although ESD was first described as a technique to treat early gastric neoplasia non-operatively, the technique and equipment have evolved over the past decades to expand indications to include locations throughout the GI tract from the esophagus to the colon.

In highly trained hands, ESD results in higher en-bloc curative resection rates and detailed histopathological evaluation, with lower recurrence when compared to the current conventional therapy in the United States.

According to American Society for Gastrointestinal Endoscopy (2015), ESD is a technically demanding procedure that requires substantial training to achieve competence; inadequate training compromises both patient safety and technical outcomes. ESD poses significant risk when undertaken by an operator inadequately trained in ESD.

*Non-pedunculated lesions with invasion of more than 1000 μm and pedunculated lesions with stalk invasion were considered as submucosal deep invasive cancer (sm2–3) (Matsuda, T., 2008)

V. CODING INFORMATION

ICD-10 Diagnoses that *may* support:

C15.3 – C15.9	Malignant neoplasm of esophagus
C16.0 – C16.9	Malignant neoplasm of stomach
C17.0	Malignant neoplasm of duodenum
C18.0 – C18.9	Malignant neoplasm of colon
C19	Malignant neoplasm of rectosigmoid junction
C20	Malignant neoplasm of rectum
D00.1	Carcinoma in situ of esophagus
D00.2	Carcinoma in situ of stomach
D13.2	Benign neoplasm of duodenum
D48.7	Neoplasm of uncertain behavior of other specified sites

D49.0	Neoplasm of unspecified behavior of digestive system
K22.711	Barrett's esophagus with high grade dysplasia
K31.7	Polyp of stomach and duodenum
K63.5	Polyp of colon

CPT/HCPCS codes:

43499	Unlisted procedure, esophagus
43999	Unlisted procedure, stomach
44799	Unlisted procedure, small intestine
45399	Unlisted procedure, colon
45999	Unlisted procedure, rectum

(Explanatory notes must accompany claims billed with unlisted codes.)

VI. REFERENCES

1. Balmadrid, B. & Hwang, J.H. (2015) Endoscopic resection of gastric and esophageal cancer. *Oxford Journals: Gastroenterology Report*. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4650978/>
2. Bliss, L. A., Maguire, L.H., Chau, Z., Yang, C.J., Nagle, D.A., Chan, A. T., & Tseng, J.F. (2015) Readmission after resections of the colon and rectum: predictors of a costly and common outcome. *Diseases of the Colon & Rectum*. DOI: 10.1097/DCR.0000000000000433
3. Coman, R. M, Gotoda, T., & Draganov, P.V. (2013) Training in endoscopic submucosal dissection. *World Journal of Gastrointestinal Endoscopy*. 5(8). 369-378. doi: [10.4253/wjge.v5.i8.369](https://doi.org/10.4253/wjge.v5.i8.369)
4. Doty, J.R., Salazar, J.D., Forastiere, A.A., Heath, E.L., Kleinberg, L. & Heitmiller, R. F. (2002) Post-esophagectomy morbidity, mortality, and length of hospital stay after pre-operative chemoradiation therapy. *Annals of Thoracic Surgery*. 74 (1) 227-231
5. Hsieh, C.C. & Chien, C.W. (2009) A cost and benefit study of esophagostomy for patients with esophageal cancer. *Journal of Gastrointestinal Surgery*. 13 (10). 1806-1812. DOI: 10.1007/s11605-009-0965-9
6. Feng, F., Zhiguo, L., Zhang, X., Guo, M., Xu, G., Ren, G., Hong, L., Sun, L., Tang, J. & Zhang, H. (2015) Comparison of endoscopic and open resection for small gastric gastrointestinal stromal tumor. *Translational Oncology*. 8(6). 504-508. Doi: doi:10.1016/j.tranon.2015.11.008
7. Ferreira, J. & Akerman, P. (2015) Colorectal endoscopic submucosal dissection: past, present, and factors impacting future dissemination. *Colon and Rectal Surgery*. 28 (03). 146-151. DOI: 10.1055/s-0035-1555006.
8. Hayashi, Y., Shinozaki, S., Sunada, K., Sato, H., Miura, Y., Ino, Y., Horie, H., Fukushima, N., Lefor, A., & Yamamoto (2006) Efficacy and safety of endoscopic submucosal dissection for superficial colorectal tumors more than 50 mm in diameter. *Clinical Gastroenterology and hepatology*.

9. Isguder, A.S., Nazil, O., Tansug, T., Bozdog, A.D. & Onal, M.A. (2005) Total gastrectomy for gastric carcinoma. *Hepatogastroenterology*. 52(61) 302-304.
10. Kazuaki K, Fujimore K, Fujii T et al. (2004) Correlation between lymph node metastasis and depth of submucosal invasion in submucosal invasive colorectal carcinoma: A Japanese collaborative study *J of Gastroenterology*.39:534-543
11. Matzuda T, Fujii T, Saito Y, et al. (2008) Efficacy of the invasive/noninvasive pattern by Magnifying chromoendoscopy to estimate the depth of invasion of the early colorectal neoplasm. *Am J Gastroenterology*. 11:2700-6
12. Ikehara H, Saito Y, Matsuda T, et al. Diagnosis of depth of Invasion for early colorectal cancer using Magnifying colonoscopy. (2010). *Journal of Gastroenterology and Hepatology*.1440-1746.
13. Hayes Clinical Research Response: “Endoscopic Submucosal Dissection for Colorectal Indications,” Publication Date January 12, 2017.
14. UpToDate: “Overview of endoscopic resection of gastrointestinal tumors,” Last updated February 11, 2019. Accessed March 12, 2019.
15. Barrett’s Esophagus. Aetna Clinical Policy Bulletin 0728. http://www.aetna.com/cpb/medical/data/700_799/0728.html. Accessed March 28, 2018 & March 12, 2019.

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.