

Clinical Policy: Double Balloon Enteroscopy

Reference Number: CA.CP.MP. 272

Effective Date: 5/06

Last Review Date: 3/22

[Coding Implications](#)

[Revision Log](#)

See [Important Reminder](#) at the end of this policy for important regulatory and legal information.

Description

The double-balloon enteroscopy (DBE) is a deep small bowel endoscopic technique that allows for both diagnostic and therapeutic intervention of the entire small bowel, used primarily for suspected small bowel disease and bleeding.

Policy/Criteria

- I. It is the policy of California Health & Wellness that DBE is **medically necessary** for any of the following indications:
 - A. Evaluation of patients with obscure and/or occult gastrointestinal bleeding or suspected small bowel pathology, when GI endoscopy such as esophagogastroduodenoscopy, colonoscopy and capsule endoscopy (CE) (or if CE is contraindicated) have failed to diagnose the source of bleeding.
 - B. A positive finding on CE requiring a biopsy or therapeutic intervention
 - C. For diagnosing suspected Crohn's disease when conventional diagnostic tests are negative
 - D. For removing entrapped foreign bodies in the small bowel (e.g., retained video capsule)
 - E. For removing large polyps of the small bowel in persons with Peutz-Jeghers syndrome
 - F. For tissue diagnosis and therapeutic interventions in patients with small-bowel tumors/malignancy or strictures detected by other diagnostic tests or in those with high suspicion for tumors despite initial negative testing.
 - G. For treatment/therapeutic interventions for patients with obscure and/or occult gastrointestinal bleeding or suspected small bowel pathology or when the small intestine has been identified as the source of the bleeding

Background

The evaluation of the small bowel is difficult due to its length, intraperitoneal location, and contractility. A number of procedures used to assess this area include push enteroscopy, video capsule endoscopy, and intraoperative enteroscopy, which have advantages. However, limitations include decreased small bowel visualization, lack of therapeutic capacity, and a more invasive approach.

Bleeding from the small bowel is uncommon, but it is responsible for the majority of patients with gastrointestinal bleeding that persists or recurs without an obvious etiology after upper endoscopy, colonoscopy, and, possibly, radiologic evaluation of the small bowel. The evaluation of suspected small bowel bleeding is guided by the clinical history, physical findings, and the results of any previous evaluations. Additional tests that may be indicated include wireless video capsule endoscopy, deep small bowel enteroscopy, computed tomographic enterography or magnetic resonance enterography, and intraoperative enteroscopy. The most common first step

CLINICAL POLICY

Double Balloon Enteroscopy

in the evaluation of suspected small bowel bleeding is capsule endoscopy, provided the initial upper endoscopy and colonoscopy were completed with good visualization. ¹

DBE is an option to evaluate and treat small bowel disease or bleeding, and can be performed using either an antegrade or a retrograde approach. The insertion route is chosen according to the estimated location of the suspected lesions. This procedure is done when other conventional tests have failed to identify the source of bleeding or there is a contraindication to CE. ⁵

There have been a number of studies, including a meta-analysis, as well as prospective, retrospective and case studies, which note that the diagnostic yield of DBE is equal or superior to that of push enteroscopy, fluoroscopic enteroclysis, small bowel radiography, and single-balloon enteroscopy. The evidence suggests that capsule endoscopy, if performed prior to DBE, increases the diagnostic yield. In addition, DBE can be used to treat certain small bowel lesions, particularly those responsible for occult bleeding, and thereby avoid other treatments, such as transfusion or surgery.

Kita et al (2018) in UptoDate notes that the most common indication for deep SBE is to evaluate suspected small bowel bleeding, and therapeutic indications for bleeding, polypectomy and stricture dilation. Serious complications can occur such as perforation and pancreatitis as with other endoscopy.

Chung et al (2020) in UptoDate note that “Advances in small bowel endoscopy have improved the ability to treat small bowel polyps without surgery. Successful small bowel polypectomy using balloon-assisted enteroscopy has been described with both single and double balloon enteroscopies. Endoscopists should be aware of possible challenges in performing double balloon enteroscopy in patients who have had previous abdominal surgery and may have peritoneal adhesions and altered anatomy. Patients with PJS may also be at increased risk for perforation with polypectomy due to serosal invagination within the polyp stalk”

The American College of Gastroenterology guidelines (Syngal, et al., 2015), the European Society of Gastrointestinal Endoscopy (Pennazio, et al., 2015) and an Uptodate review (Chung and Adar, 2016) state that polyp removal thru device-assisted enteroscopy in patients with Peutz-Jeghers syndrome have been successfully performed but perforation risks may be increased with polypectomy due to serosal invagination within the polyp stalk.

National Comprehensive Cancer Network

There is no mention of DBE in these guidelines for either colon or gastric cancer.

American College of Gastroenterology

Video capsule endoscopy should be considered a first-line procedure for small bowel investigation, if there is no contraindication. Any method of deep enteroscopy can be used when endoscopic evaluation and therapy are required.

Australian Medical Services Advisory Committee

DBE is a safe, minimally invasive technique for examining endoscopically the whole of the small intestine, allowing biopsy and certain therapeutic procedures at the same time.

CLINICAL POLICY

Double Balloon Enteroscopy

American Society for Gastrointestinal Endoscopy (ASGE)(2015)

In patients with suspected Crohn’s disease, the overall yield of deep endoscopy (DE) for small-bowel pathology ranges from 30% to 48%, with an adverse event rate of approximately 1% for diagnostic examinations. A systematic review of diagnostic DBE for all indications found a pooled diagnostic yield of 63.4% (95% confidence interval, 42%-82.3%) for small-bowel pathology in patients with definite or suspected Crohn’s disease, with a pooled minor and major adverse event rate for all indications of 9.1% and 0.72%, respectively.

DE is useful for tissue diagnosis and therapeutic interventions in patients with small-bowel tumors detected on video capsule endoscopy (VCE) or radiologic imaging. DE also is useful for detection of small-bowel tumors in patients in whom a high clinical suspicion for a tumor remains after negative VCE or other imaging. The miss rate of VCE for small-bowel tumors is reported as high as 18.9%, and malignant small-bowel tumors missed on VCE may be detected on DE. DE also may be useful for evaluating patients in whom VCE is contraindicated because of known or suspected small-bowel stenosis.

Coding Implications

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| CPT® Codes | Description |
|------------|-------------------------------------|
| 44799 | Unlisted procedure, small intestine |

| HCPCS Codes | Description |
|-------------|-------------|
| N/A | |

ICD-10-CM Diagnosis Codes that Support Coverage Criteria

| ICD-10-CM Code | Description |
|----------------|---|
| C15.3-C15.8 | Malignant neoplasm of esophagus |
| C17.0-C17.8 | Malignant neoplasm of small intestine |
| C25.0-C25.8 | Malignant neoplasm of pancreas |
| C49.A2 | Gastrointestinal stromal tumor of stomach |
| C81.01-C81.19 | Hodgkin lymphoma |
| C81.11-C81.19 | Nodular sclerosis Hodgkin lymphoma |

CLINICAL POLICY

Double Balloon Enteroscopy

| ICD-10-CM Code | Description |
|-----------------|--|
| C81.21-C81.29 | Mixed cellularity classical Hodgkin lymphoma |
| C81.31-C81.39 | Lymphocyte depleted classical Hodgkin lymphoma |
| C81.41-C81.49 | Lymphocyte-rich classical Hodgkin lymphoma |
| C81.71-C81.79 | Other classical Hodgkin lymphoma |
| D50.0 | Iron deficiency anemia secondary to blood loss (chronic) |
| D62 | Acute posthemorrhagic anemia |
| D63.0 | Anemia in neoplastic disease |
| K50.011-K50.018 | Crohn's disease of small intestine, with complications (rectal bleeding, intestinal obstruction, fistula, abscess) |
| K57.00 | Diverticulitis of small intestine with perforation and abscess without bleeding |
| K57.01 | Diverticulitis of small intestine with perforation and abscess, with bleeding |
| K57.10 | Diverticulitis of small intestine with perforation and abscess |
| K57.11 | Diverticulosis of small intestine without perforation or abscess, with bleeding |
| K57.12 | Diverticulitis of small intestine without perforation or abscess, without bleeding |
| K57.13 | Diverticulitis of small intestine without perforation or abscess with bleeding |
| K92.0 | Hematemesis |
| K92.1 | Melena |
| K92.2 | Gastrointestinal hemorrhage, unspecified |
| T18.3X | Foreign body in the small intestine |

| Reviews, Revisions, and Approvals | Date | Approval Date |
|--|------|---------------|
| Policy Adopted from Health Net NMP#272 Double Balloon Enteroscopy | 3/17 | |
| Added indications C,D and E based on American Society for Gastrointestinal Endoscopy recommendations | 3/18 | 3/18 |
| Minor changes and references updated | 3/19 | 3/19 |
| No change, references updated | 3/20 | 3/20 |
| Added E: For removing large polyps of the small bowel in persons with Peutz-Jeghers syndrome based on Uptodate | 3/21 | 3/21 |
| Reworded criteria IA to separate evaluation from therapeutic intervention and added IG for therapeutic intervention. No change in criteria | 3/22 | 3/22 |

References

1. Cave D. Evaluation of suspected small bowel bleeding (formerly obscure gastrointestinal bleeding). UpToDate. December 15, 2015.

CLINICAL POLICY

Double Balloon Enteroscopy

2. Chauhan, SS et al. American Society for Gastrointestinal Endoscopy (ASGE) Technology Assessment Committee Technology Assessment Report on Enteroscopy. (2015) Accessed at: https://www.asge.org/docs/default-source/education/Technology_Reviews/doc-enteroscopy.pdf
3. Chung DC, Adar T. Peutz-Jeghers syndrome: Screening and management. UpToDate Inc., Waltham, MA. Last reviewed July 2016, update Dec 2020
4. Gerson L, Fidler JL, Cave DR, et al. American College of Gastroenterology. Clinical Guideline: Diagnosis and Management of Small Bowel Bleeding. *Am J Gastroenterol* 2015; 110:1265–1287. doi:10.1038/ajg.2015.246.
5. Hayes. Medical Technology Directory. Double-Balloon Video Enteroscopy for Diagnosis and Treatment of Small Bowel Disease. April 4, 2014. Archived May 28, 2015.
6. Kaffes AJ, Koo JH, Meredith C, et al. Double-balloon enteroscopy in the diagnosis and the management of small-bowel diseases: an initial experience in 40 patients. *Gastrointest Endosc.* 2006; 63(1):81.
7. Khashab, MA et al American Society for Gastrointestinal Endoscopy (ASGE) Standards of Practice Committee The role of deep enteroscopy in the management of small bowel disorders. (2015) Accessed at: https://www.asge.org/docs/default-source/education/practice_guidelines/doc-deep_enteroscopy_small_bowel_disorders_aip.pdf?sfvrsn=6 March 2018
8. Kita H. Overview of deep small bowel enteroscopy. UpToDate. Updated June 27, 2016 and June 2018,
9. Medical Services Advisory Committee (MSAC). Double balloon enteroscopy. Assessment Report. MSAC Application No. 1102. Canberra, ACT: MSAC; 2006. Available at: <http://www.msac.gov.au/internet/msac/publishing.nsf/Content/app1102-1>.
10. National Comprehensive Cancer Network (NCCN). NCCN Clinical Practice Guidelines in Oncology. Gastric Cancer. Version 3.2016.
11. National Comprehensive Cancer Network (NCCN). NCCN Clinical Practice Guidelines in Oncology. Colon Cancer. Version 1.2017.
12. Pasha SF, Leighton JA, Das A, et al. Double-balloon enteroscopy and capsule endoscopy have comparable diagnostic yield in small-bowel disease: a meta-analysis. *Clin Gastroenterol Hepatol.* 2008 Jun;6(6):671-6. doi: 10.1016/j.cgh.2008.01.005. Epub 2008 Mar 20.
13. Pennazio M, Spada C, Eliakim R, et al. Small-bowel capsule endoscopy and device-assisted enteroscopy for diagnosis and treatment of small-bowel disorders: European Society of Gastrointestinal Endoscopy (ESGE) Clinical Guideline. *Endoscopy.* 2015;47(4):352-376.
14. Rahman A, Ross A, Leighton JA, et al. Double-balloon enteroscopy in Crohn's disease: findings and impact on management in a multicenter retrospective study. *Gastrointest Endosc.* 2015 Jul;82 (1):102-7. doi: 10.1016/
15. Robles EP, Delgado PE, Conesa PB, et al. Role of double-balloon enteroscopy in malignant small bowel tumors. *World J Gastrointest Endosc.* 2015; 7(6):652-658.
16. Samaha E, Rahmi G, Landi B, et al. Long-term outcome of patients treated with double balloon enteroscopy for small bowel vascular lesions. *Am J Gastroenterol.* 2012 Feb; 107(2):240-6. doi: 10.1038/ajg.2011.325. Epub 2011 Sep 27.
17. Sun B, Rajan E, Cheng S, et al. Diagnostic yield and therapeutic impact of double-balloon enteroscopy in a large cohort of patients with obscure gastrointestinal bleeding. *Am J Gastroenterol.* 2006; 101(9):2011.

CLINICAL POLICY

Double Balloon Enteroscopy

18. Teshima CW, Kuipers EJ, van Zanten SV, et al. Double balloon enteroscopy and capsule endoscopy for obscure gastrointestinal bleeding: An updated meta-analysis. *J Gastroenterol Hepatol.* 2011;26(5):796-801.
19. Travis AC, Saltzman JR. Evaluation of Occult Gastrointestinal Bleeding. UpToDate. Oct.24, 2016, March, 2021
20. Wadwa V, Sethi S, Tewani S, et al. A meta-analysis on efficacy and safety: single-balloon vs. double-balloon enteroscopy. *Gastroenterol Rep.* 2015 May;3(2):148-55. doi: 10.1093/gastro/gov003. Epub 2015 Feb 18.

Important Reminder

This clinical policy has been developed by appropriately experienced and licensed health care professionals based on a review and consideration of currently available generally accepted standards of medical practice; peer-reviewed medical literature; government agency/program approval status; evidence-based guidelines and positions of leading national health professional organizations; views of physicians practicing in relevant clinical areas affected by this clinical policy; and other available clinical information. The Health Plan makes no representations and accepts no liability with respect to the content of any external information used or relied upon in developing this clinical policy. This clinical policy is consistent with standards of medical practice current at the time that this clinical policy was approved. “Health Plan” means a health plan that has adopted this clinical policy and that is operated or administered, in whole or in part, by Centene Management Company, LLC, or any of such health plan’s affiliates, as applicable.

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CLINICAL POLICY

Double Balloon Enteroscopy

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