



Clinical Policy: Double Balloon Enteroscopy

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Effective Date: 5/06

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[Coding Implications](#)

[Revision Log](#)

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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 Health Net of California that DBE is **medically necessary** for the following indications:
 - A. Evaluation and treatment/therapeutic interventions for patients with obscure and/or occult gastrointestinal bleeding or suspected small bowel pathology, when 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.

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



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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 hasve 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.

American Society for Gastrointestinal Endoscopy (ASGE)(2015)



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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
C81.21-C81.29	Mixed cellularity classical Hodgkin lymphoma

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ICD-10-CM Code	Description
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

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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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Note: For Medicare members, to ensure consistency with the Medicare National Coverage Determinations (NCD) and Local Coverage Determinations (LCD), all applicable NCDs and LCDs should be reviewed prior to applying the criteria set forth in this clinical policy. Refer to the CMS website at <http://www.cms.gov> for additional information.

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