Wireless Capsule Endoscopy to Diagnose Disorders of the Small Bowel, Esophagus, and Colon

Table of Contents
- Policy: Commercial
- Policy: Medicare
- Authorization Information
- Coding Information
- Description
- Policy History
- Information Pertaining to All Policies
- References

Policy Number: 185
BCBSA Reference Number: 6.01.33
NCD/LCD: N/A

Related Policies
None

Policy
Commercial Members: Managed Care (HMO and POS), PPO, and Indemnity Medicare HMO BlueSM and Medicare PPO BlueSM Members

Wireless capsule endoscopy of the small bowel may be MEDICALLY NECESSARY for the following indications:
- Initial diagnosis in patients with suspected Crohn disease without evidence of disease on conventional diagnostic tests such as small bowel follow-through and upper and lower endoscopy.
- In patients with an established diagnosis of Crohn disease, when there are unexpected change(s) in the course of disease or response to treatment, suggesting the initial diagnosis may be incorrect and re-examination may be indicated.
- Suspected small bowel bleeding, as evidenced by prior inconclusive upper and lower gastrointestinal (GI) endoscopic studies performed during the current episode of illness.
- For surveillance of the small bowel in patients with hereditary GI polyposis syndromes, including familial adenomatosis polyposis, and Peutz-Jeghers syndrome.

Other indications for wireless capsule endoscopy are considered INVESTIGATIONAL including but not limited to:
- Evaluation of the extent of involvement of known Crohn disease or ulcerative colitis.
- Evaluation of the esophagus, in patients with gastroesophageal reflux or other esophageal pathologies.
- Evaluation of other GI diseases and conditions not presenting with GI bleeding, including but not limited to, celiac sprue, irritable bowel syndrome, Lynch syndrome, portal hypertensive enteropathy, small bowel neoplasm, and unexplained chronic abdominal pain.
- Evaluation of the colon including, but not limited to, detection of colonic polyps or colon cancer.
- Initial evaluation of patients with acute upper GI bleeding.
The patency capsule is considered **INVESTIGATIONAL**, including the use to evaluate patency of the GI tract before wireless capsule endoscopy.

**Prior Authorization Information**
Pre-service approval is required for all inpatient services for all products. See below for situations where prior authorization may be required or may not be required. Yes indicates that prior authorization is required. No indicates that prior authorization is not required. N/A indicates that this service is primarily performed in an inpatient setting.

<table>
<thead>
<tr>
<th>Commercial Managed Care (HMO and POS)</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial PPO and Indemnity</td>
<td>No</td>
</tr>
<tr>
<td>Medicare HMO Blue&lt;sup&gt;SM&lt;/sup&gt;</td>
<td>No</td>
</tr>
<tr>
<td>Medicare PPO Blue&lt;sup&gt;SM&lt;/sup&gt;</td>
<td>No</td>
</tr>
</tbody>
</table>

**CPT Codes / HCPCS Codes / ICD-9 Codes**
Inclusion or exclusion of a code does not constitute or imply member coverage or provider reimbursement. Please refer to the member’s contract benefits in effect at the time of service to determine coverage or non-coverage as it applies to an individual member.

Providers should report all services using the most up-to-date industry-standard procedure, revenue, and diagnosis codes, including modifiers where applicable.

The following codes are included below for informational purposes only; this is not an all-inclusive list.

The above **medical necessity criteria MUST** be met for the following codes to be covered for Commercial Members: Managed Care (HMO and POS), PPO and Indemnity:

**CPT Codes**

<table>
<thead>
<tr>
<th>CPT codes:</th>
<th>Code Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>91110</td>
<td>Gastrointestinal tract imaging, intraluminal (eg, capsule endoscopy), esophagus through ileum, with physician interpretation and report</td>
</tr>
</tbody>
</table>

The following CPT code is considered investigational for Commercial Members: Managed Care (HMO and POS), PPO and Indemnity:

**CPT Codes**

<table>
<thead>
<tr>
<th>CPT codes:</th>
<th>Code Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>91111</td>
<td>Gastrointestinal tract imaging, intraluminal (e.g., capsule endoscopy), esophagus with physician interpretation and report</td>
</tr>
</tbody>
</table>

The following CPT code is considered investigational for Commercial Members: Managed Care (HMO and POS), PPO, Indemnity, Medicare HMO Blue and Medicare PPO Blue:

**CPT Codes**

<table>
<thead>
<tr>
<th>CPT codes:</th>
<th>Code Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0355T</td>
<td>Gastrointestinal tract imaging, intraluminal (eg, capsule endoscopy), colon, with interpretation and report</td>
</tr>
</tbody>
</table>
Description
Wireless capsule endoscopy is performed using the PillCam™ Given® Diagnostic Imaging System (previously called M2A®), which is a disposable imaging capsule manufactured by Given Imaging Ltd. (Norcross, GA). The capsule measures 11 by 30 mm and contains video imaging, self-illumination, and image transmission modules, as well as a battery supply that lasts up to 8 hours. The indwelling camera takes images at a rate of 2 frames per second as peristalsis carries the capsule through the GI tract. The average transit time from ingestion to evacuation is 24 hours. The device uses wireless radio transmission to send the images to a receiving recorder device that the patient wears around the waist. This receiving device also contains some localizing antennae sensors that can roughly gauge where the image was taken over the abdomen. Images are then downloaded onto a workstation for viewing and processing.

In the small bowel, the capsule camera has been most frequently proposed as a technique to identify the source of obscure intestinal bleeding, although recently there has been interest in exploring its use in patients with inflammatory bowel disease. Alternative diagnostic techniques include barium studies or small intestinal endoscopy. In the esophagus, the capsule camera has been proposed as a screening technique for Barrett esophagus associated with GERD. Evaluation of the esophagus requires limited transit time, and it is estimated that the test takes 20 minutes to perform. Alternative techniques include upper endoscopy.

Summary
The wireless capsule endoscopy uses a device to visualize portions of the bowel that are not accessible via upper or lower endoscopy, primarily the small bowel. Patients swallow a capsule that records images of the intestinal mucosa as it passes through the gastrointestinal (GI) tract. The capsule is collected after being excreted and images interpreted.

For individuals who have suspected small bowel bleeding (previously referred to as obscure GI bleeding) who receive wireless capsule endoscopy, the evidence includes numerous case series evaluating patients with a nondiagnostic standard workup. Relevant outcomes are test accuracy, test validity, and other test performance measures. The evidence has demonstrated that capsule endoscopy can identify a bleeding source in a substantial number of patients who cannot be diagnosed by other methods, with a low incidence of adverse events. Because there are few other options for diagnosing obscure small bowel bleeding in patients with negative upper and lower endoscopy, this technique will likely improve health outcomes by directing specific treatment when a bleeding source is identified. The evidence is sufficient to determine that the technology results in a meaningful improvement in the net health outcome.

For individuals who have acute upper GI tract bleeding who receive wireless capsule endoscopy, the evidence includes 1 RCT and several cohort studies. Relevant outcomes are test accuracy, test validity, and other test performance measures. The use of capsule endoscopy in the emergency department setting for suspected upper GI bleeding is based on efficiency (avoiding hospitalization, avoiding immediate endoscopy). Further controlled studies are needed to further assess the impact of capsule endoscopy on health outcomes compared with standard management. The evidence is insufficient to determine the effects of the technology on health outcomes.

For individuals who suspected small bowel Crohn disease or individuals with an established diagnosis of Crohn disease who receive wireless capsule endoscopy, the evidence includes case series. Relevant outcomes are test accuracy, test validity, and other test performance measures. Although the test performance characteristics and diagnostic yields of the capsule for these indications are uncertain, the diagnostic yields are as good as or better than other diagnostic options, and these data are likely to improve health outcomes by identifying some cases of Crohn disease and directing specific treatment. The evidence is sufficient to determine that the technology results in a meaningful improvement in the net health outcome.

For individuals who have ulcerative colitis, suspected celiac disease, esophageal disorders, hereditary polyposis syndromes, colon cancer screening, portal hypertensive enteropathy, or unexplained chronic
abdominal pain, the evidence includes case series and diagnostic accuracy studies. Relevant outcomes are test accuracy, test validity, and other test performance measures. For some of these conditions (e.g., esophageal conditions, colon cancer screening), other available modalities are superior to capsule endoscopy. The diagnostic characteristics of capsule endoscopy are not good enough to substitute for other modalities or to triage patients to other modalities. For other conditions (e.g., determining the extent of Crohn disease), direct evidence of improved outcomes or a strong indirect chain of evidence to improved outcomes is lacking. The evidence is insufficient to determine the effects of the technology on health outcomes.

For individuals who are scheduled to undergo capsule endoscopy for known or suspected small bowel stricture who receive a patency capsule, the evidence includes case series. Relevant outcomes are test validity and other test performance measures. The available studies have reported that capsule endoscopy following a successful patency capsule test results in high rates of success with low rates of adverse events. The capsule is also associated with adverse events. Because of the lack of comparative data to other diagnostic strategies, it is not possible to determine whether use of the patency capsule improves net health outcomes. The evidence is insufficient to determine the effects of the technology on health outcomes.

**Policy History**

<table>
<thead>
<tr>
<th>Date</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2017</td>
<td>New references added from BCBSA National medical policy.</td>
</tr>
<tr>
<td>1/2017</td>
<td>BCBSA National medical policy review.</td>
</tr>
<tr>
<td></td>
<td>Policy statement clarified: “Obscure gastrointestinal bleeding” to “Suspected small bowel bleeding.” Title changed to “Wireless Capsule Endoscopy to Diagnose Disorders of the Small Bowel, Esophagus, and Colon.” New references added. 1/1/2017</td>
</tr>
<tr>
<td>11/2015</td>
<td>New references added from BCBSA National medical policy.</td>
</tr>
<tr>
<td>2/2015</td>
<td>BCBSA National medical policy review.</td>
</tr>
<tr>
<td></td>
<td>New medically necessary and investigational indications described. Clarified coding information. Effective 2/1/2015.</td>
</tr>
<tr>
<td>7/2014</td>
<td>Updated Coding section with ICD10 procedure and diagnosis codes, effective 10/2015.</td>
</tr>
<tr>
<td>2/2014</td>
<td>BCBSA National medical policy review.</td>
</tr>
<tr>
<td></td>
<td>New investigational indications described. Effective 2/1/2014. Removed CPT code 91112 as it does not meet the intent. Removed ICD-9 diagnosis codes as they are not in the LCD (L22531) 280.9, 456.0, 456.2, 537.83, 555.1, 555.2, 555.9, and added 569.86 as this is in the :LCD.</td>
</tr>
</tbody>
</table>
Revisions policy statement

Reviewed - Medical Policy Group - Gastroenterology, Nutrition, Organ Transplantation
No changes to policy statements.

Information Pertaining to All Blue Cross Blue Shield Medical Policies
Click on any of the following terms to access the relevant information:
Medical Policy Terms of Use
Managed Care Guidelines
Indemnity/PPO Guidelines
Clinical Exception Process
Medical Technology Assessment Guidelines

References