PillCam capsules

- Small Bowel Capsule Endoscopy
- Esophageal Capsule Endoscopy
## Evolution of PillCam Capsule Endoscopy

<table>
<thead>
<tr>
<th>Year</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>Initial version of the PillCam Capsule.</td>
</tr>
<tr>
<td>2000</td>
<td>Improved hardware and software for capsule endoscopy.</td>
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<tr>
<td>2003</td>
<td>Enhanced software for image analysis and reporting.</td>
</tr>
<tr>
<td>2009</td>
<td>Further advancements in hardware and software.</td>
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</tbody>
</table>

**Hardware**

- Initial version of the PillCam Capsule.
- Improved hardware for better image quality.
- Enhanced for more efficient data transmission.

**Software**

- Initial software for processing capsule images.
- Advanced software for automatic analysis and reporting.
- Improved user interface for better workflow.

**Capsule**

- Initial size and design.
- Improved for better patient comfort and ease of swallowing.
- Further optimized for patient safety and efficacy.
Indication

**Small Bowel Capsule Endoscopy:**
- Obscure GI bleeding including iron deficiency anemia
- Suspected Crohn’s disease
- Suspected small intestinal tumors and surveillance in patients with polyposis syndromes
- Suspected or refractory malabsorptive syndromes (celiac disease)
Indication

**Esophageal Capsule Endoscopy:**
- Esophageal varices
- Erosive esophagitis
- Barrett’s esophagus

Contraindications

- Patients with known or suspected GI obstructions, strictures or fistulas based on the clinical picture or pre-procedure testing and profile
- Patients with cardiac pacemakers or other implanted electro-medical devices
- Patients with swallowing disorders
Findings

CPT code

• 91110 Gastrointestinal tract imaging, intraluminal (e.g., capsule endoscopy), **esophagus through ileum**, with physician interpretation and report (Append modifier 52 if the ileum is not visualized)

• 91111 Gastrointestinal tract imaging, intraluminal (e.g., capsule endoscopy), **esophagus** with physician interpretation and report

• 91112 Gastrointestinal transit and pressure measurement, **stomach through colon**, wireless capsule, with physician interpretation and report
Payer Policy Diagnosis Codes

<table>
<thead>
<tr>
<th>Diagnosis Code</th>
<th>Diagnosis Description</th>
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<tbody>
<tr>
<td>152.0-152.9</td>
<td>Malignant neoplasm of small intestine, including duodenum</td>
</tr>
<tr>
<td>209.00-209.03</td>
<td>Malignant carcinoid tumors of the small intestine</td>
</tr>
<tr>
<td>211.2</td>
<td>Benign neoplasm of duodenum, jejunum, ileum</td>
</tr>
<tr>
<td>235.2</td>
<td>Neoplasm of uncertain behavior of stomach, intestines, and rectum</td>
</tr>
<tr>
<td>280.0-280.9</td>
<td>Iron deficiency anemia</td>
</tr>
<tr>
<td>555.0-555.9</td>
<td>Regional enteritis (Crohn’s disease)</td>
</tr>
<tr>
<td>578.0-578.9</td>
<td>Gastrointestinal hemorrhage</td>
</tr>
<tr>
<td>579.0-579.9</td>
<td>Intestinal malabsorption</td>
</tr>
<tr>
<td>V12.72</td>
<td>Personal history of colonic polyps</td>
</tr>
<tr>
<td>V71.1</td>
<td>Observation for suspected malignant neoplasm</td>
</tr>
<tr>
<td>V71.89</td>
<td>Observation and evaluation for other specified suspected conditions</td>
</tr>
</tbody>
</table>

Questions Regarding Payer Coverage

1. A patient with undiagnosed disease, presenting with symptoms:
   a) abdominal pain
   b) diarrhea
   c) weight loss
   d) fever

2. A patient with history of large bowel Crohn’s disease who remains symptomatic and who has never had the small bowel diagnosed?

3. A patient with known Crohn’s disease in both the small and large bowel with ongoing symptoms (flare)?

4. A patient with positive findings for Crohn’s disease of the large bowel who is not symptomatic, and the physician now wants to evaluate the extent of disease?
Crohn’s – Capturing Medical Necessity

• Capsule endoscopy’s payer coverage policy includes coverage for “Suspected Crohn’s” and “Re-evaluation of Crohn’s”

• Document the reason/indication (rule out) for doing the CE procedure:

• Suspected Crohn’s disease of the small bowel, or re-evaluation of Crohn’s, etc.

• There is no diagnosis code specific to “Suspected Crohn’s”

• Report the patient’s signs and symptoms

• Common symptoms for suspected Crohn’s include: abdominal pain, diarrhea, nausea, vomiting, weight loss, etc.

Unfavorable Medical Review

• Most Common Causes

1. The payer’s covered indication/reason not documented
   Example: Suspicion of Crohn’s disease, re-evaluation of symptomatic known Crohn’s patient
Unfavorable Medical Review

2. Incomplete patient work-up

• Required prerequisites are not performed prior to procedure

• Example: EGD, colonoscopy, SBFT, CT Scan, Enteroclysis

• SBFT or imaging procedures are often required by payers to rule out strictures, obstruction and/or fistulae prior to performing capsule endoscopy

• These prerequisites will vary by payer

Unfavorable Medical Review

3. Indicated symptoms required by payer not documented

• Example: Abdominal pain or diarrhea plus one or more signs of inflammation (fever, elevated white blood cell count, elevated sed rate or bleeding)
Tips for Success

• Make good use of these reimbursement tools to assist with detailed and clear medical documentation
• Worksheet
• Explains the reason/indication for doing the capsule procedure
• Captures key documentation
• Payer Guidelines
• Provides policy coverage language
• Provides required prerequisites
• Provides payer’s listed diagnosis codes

PillCam Small Bowel Worksheet
Worksheet Explanation

1. Reason/Indication:
   • Suspected small bowel Crohn’s, (Initial evaluation)
   • What condition(s) are being “ruled out”

Worksheet Explanation

2. Symptoms and Indications:
   • Circle all presenting patient clinical conditions or symptoms (e.g., 555.1, 789.00, 787.91)

3. Previous Diagnostic Tests Performed:
   • -EGD/Colon – does it say “negative”
   • -SBFT or CT Scan, or Patency Capsule
   • any test performed that may rule out strictures
   • -Add all additional pertinent patient information
Worksheet Explanation

4. Other pertinent medical history:
   • Insert any additional pertinent patient medical history

5. Personalize
   • Make sure the physician signs this document

Tips: Prior Authorization & Pre-Determination

• Verify each patient’s insurance
• Medicare does not require a prior authorization
• Diagnosis codes are reviewed
• Submit when case falls outside of payer’s coverage language
• Submit to avoid delays in claim’s processing for payers that have procedure flagged for medical necessity

Note: Make sure you utilize the small bowel worksheet to capture appropriate medical documentation
Radiofrequency Ablation for Barrett’s esophagus

- ICD-9 Diagnosis
- 530.85 Barrett's esophagus
HALO<sup>FLEX</sup> Energy Generator

HALO Ablation Catheters
HALO 360 RFA
HALO 90 RFA

Outcomes
CPT code

• 43229 Esophagoscopy, flexible, transoral; with ablation of tumor(s), polyp(s), or other lesion(s) (includes pre- and post-dilation and guide wire passage, when performed)

• 43270 Esophagogastroduodenoscopy, flexible, transoral; with ablation of tumor(s), polyp(s) or other lesion(s) (includes pre- and post-dilation and guide wire passage, when performed)

ICD 9

• Esophagitis, unspecified 530.10
• Esophagitis, reflux 530.11
• Esophagitis, other 530.19
• Ulcer of esophagus without bleeding 530.20
• Ulcer of esophagus with bleeding 530.21
• Dyskinesia / spasm of esophagus 530.5
• Gastrointestinal reflux (GERD) 530.81
• Barrett’s Esophagus 530.85
• Persistent vomiting 536.2
• Dyspepsia and other specified disorders of function of stomach 536.8
• Diaphragmatic hernia 553.3
• Chest pain 786.5
• Chest pain, unspecified 786.50
• Heartburn 787.1
• Dysphagia 787.2
pH Monitoring

- Catheter-based pH Monitoring
- Bravo Wireless
pH Monitoring

Catheter-based pH

- The patient tends to stay at home and not follow usual daily dietary routine
- 24-hour study only
- Catheter can move and slip into the stomach
CPT code: Catheter based pH Monitoring

- 91034 Esophagus, gastroesophageal reflux test; with nasal catheter pH electrode(s) placement, recording, analysis and interpretation

**Bravo Wireless**
- Patient is more inclined to follow daily activity
- 48-hour testing capability- increased sensitivity with longer testing
- Fixed position
- Early detachment is possible
CPT code: Bravo Wireless pH Monitoring

- 91035 Esophagus, gastroesophageal reflux test; with mucosal attached telemetry pH electrode placement, recording, analysis and interpretation
Impedance and/or Manometry

CPT Code: Catheter based Impedance/pH Monitoring

- 91038 Esophageal function test, gastroesophageal reflux test with nasal catheter intraluminal impedance electrode(s) placement, recording, analysis and interpretation; prolonged (greater than 1 hour, up to 24 hours)
CPT Code: Esophageal Manometry

- 91010 Esophageal motility (manometric study of the esophagus and/or gastroesophageal junction) study

CPT Codes Esophageal Impedance Manometry

- 91037 Esophageal function test, gastroesophageal reflux test with nasal catheter intraluminal impedance electrode(s) placement, recording, analysis and interpretation
• The end.

• Extra
Capsule Endoscopy Retention

Retention

- Definition - what is it?
  - Capsule retained proximal to an intestinal narrowing for at least **TWO WEEKS**.
  - Untreated, may be permanent.
  - Capsule removal requires medical, endoscopic or surgical intervention.

Endoscopy 2005;37(10):1065-1067
Retention: How do we treat it?

- Medical therapy
  - Purges
  - Stop NSAIDs
  - Steroids / Remicade
- Endoscopic retrieval
  - Double-balloon endoscopy (DBE) if necessary and available
- Surgical therapy
  - Stricturoplasty
  - Resection

Endoscopy 2005;37(10):1065-1067

Capsule Endoscopy Retention
Agile™ Patency System

• Developed to reduce the risk of obstruction observed with CE
• New (2 timer plugs) non-invasive, dissolvable capsule developed to assess the functional patency of the small bowel to identify patients who can safely undergo CE
Agile patency capsule with timer plugs at each end retained at intestinal stricture. It is designed to facilitate dissolution of the lactose-containing capsule body even if only 1 of the 2 timer plugs is exposed to intestinal fluids while the other is in the stricture.

Given Imaging Ltd. 2009.
PillCam® Patency Capsule - Coverage

• Payer coverage:
  • Currently, many payers do not yet readily recognize PillCam for coverage
  • PillCam patency is reported with the miscellaneous code CPT 91299 (Unlisted diagnostic GI procedure)

• Reason for use:
  - Many physicians are using the PillCam patency capsule in lieu of SBFT or other imaging tests to rule out strictures or concerns for retention in the known Crohn’s patient

• Advantages of PillCam use include:
  - No exposure to radiation
  - No need for the patient to travel to a different facility
• **Reimbursement:**

  • Bill the patient directly (cost is $30 per capsule) —OR—

  • If there is a clinical need for an E/M visit the same day PillCam is ingested, it could be incorporated in the E/M visit —OR—

  • Choose to absorb the cost into the capsule endoscopy procedure