CIGNA MEDICAL COVERAGE POLICIES- GASTROINTESTINAL ENDOSCOPIC PROCEDURE

Esophagogastroduodenoscopy (EGD)

Effective Date: May 1, 2025

Instructions for use

The following coverage policy applies to health benefit plans administered by Cigna. Coverage policies are intended to provide guidance in interpreting certain standard Cigna benefit plans and are used by medical directors and other health care professionals in making medical necessity and other coverage determinations. Please note the terms of a customer's particular benefit plan document may differ significantly from the standard benefit plans upon which these coverage policies are based. For example, a customer's benefit plan document may contain a specific exclusion related to a topic addressed in a coverage policy.

In the event of a conflict, a customer's benefit plan document always supersedes the information in the coverage policy. In the absence of federal or state coverage mandates, benefits are ultimately determined by the terms of the applicable benefit plan document. Coverage determinations in each specific instance require consideration of:

1. The terms of the applicable benefit plan document in effect on the date of service
2. Any applicable laws and regulations
3. Any relevant collateral source materials including coverage policies
4. The specific facts of the particular situation

Coverage policies relate exclusively to the administration of health benefit plans. Coverage policies are not recommendations for treatment and should never be used as treatment guidelines.

This evidence-based medical coverage policy has been developed by EviCore, Inc. Some information in this coverage policy may not apply to all benefit plans administered by Cigna.

These guidelines include procedures EviCore does not review for Cigna. Please refer to the **Cigna CPT code list** for the current list of high-tech imaging procedures that EviCore reviews for Cigna.

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Esophagogastroduodenoscopy (EGD) Guidelines

Guideline Page

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General Guidelines (EGD-0)

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- The Gastrointestinal Endoscopy Program applies an evidence-based approach to evaluate the most appropriate care for each individual. This evaluation requires submission of medical records pertinent to the treatment and/or services being requested by the provider.
- If the medical records provided do not provide sufficiently detailed information to understand the individual's current clinical status, then the medical necessity for the request cannot be established and the request cannot be approved.
- A pertinent clinical evaluation since the new onset or change in symptoms is required prior to considering gastrointestinal endoscopy services:
  - A pertinent clinical evaluation should include the following:
    - A detailed history and physical examination
    - Appropriate laboratory studies
    - Pertinent imaging studies
    - Pathology reports
    - Procedure reports
    - Reports from other providers participating in the treatment of the relevant condition
  - For an established individual, a meaningful technological contact (telehealth visit, telephone call, electronic mail or messaging) since the onset or change in symptoms can serve as a pertinent clinical evaluation
- A recent clinical evaluation may be deferred if the individual is undergoing a guideline-supported, scheduled follow-up imaging or other designated procedural evaluation. Exceptions due to routine surveillance indications are addressed in the applicable condition-specific guideline sections.
- The Gastrointestinal Endoscopy Program reserve the right to change and update the policy as new evidence emerges. The guidelines undergoes a formal review at least annually. The guidelines are based upon major national and international association and society guidelines and criteria, peer reviewed literature, major treatises, as well as input from health plans, practicing academic and community-based physicians.
- This guideline is not intended to supersede or replace sound medical judgment, but instead, should facilitate the identification of the most appropriate treatment given the individual's clinical condition. This guideline is written to cover most gastrointestinal endoscopic indications. However, the guideline may not be applicable in certain clinical circumstances. Physician judgment may override the policy. Clinical decisions, including treatment decisions, are the responsibility of the individual and his/her

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provider. Clinicians are expected to use independent medical judgment, which takes into account the clinical circumstances to determine individual management decisions

- All time intervals in this guideline refer to upper endoscopy, unless otherwise stated.
- Requests for Open-Access Endoscopy must meet criteria according these guidelines.
- Endomicroscopy
  - At the current time, endomicroscopy is considered investigational and experimental
- EGD-included Procedures
  - All requests for an additional EGD are evaluated based on whether the request meets guideline criteria for an EGD.
  - Endoscopic Ultrasound
    - An endoscopic ultrasound (EUS) is a specialized procedure using a scope with ultrasound to create images of the digestive tract lining or other organs, such as the liver or pancreas.
    - The coding for an EUS includes an EGD[46]. The routine unbundling of EUS into separate codes for EUS and diagnostic EGD is not supported.
    - EUS is not a delegated service at this time.
  - Endoscopic retrograde cholangiopancreatography
    - Endoscopic retrograde cholangiopancreatography (ERCP) is a procedure to diagnose and treat problems in the liver, gallbladder, bile ducts, and pancreas combining x-ray and the use of an endoscope.
    - Performing ERCP does not automatically require a separate EGD service. Automatically billing separate codes for ERCP and diagnostic EGD is not supported. Requests for EGD to be performed at the same time as ERCP will be adjudicated based on whether the request meets guideline criteria for a separate EGD.
    - ERCP is not a delegated service at this time.
- New and Emerging Technologies
  - Requests related to new and emerging technologies will be considered to determine whether they meet evidence-based guidelines.
    - If a specific CPT code does not exist for a new technology, the CPT code used in the request will be considered based on its typical procedure application.
  - Procedures which are inconsistent with established clinical standards or are requested for data collection and not used in direct clinical management are not supported.
- State and federal legislations may need to be considered in the review of gastrointestinal endoscopy requests.
- CPT® (Current Procedural Terminology) is a registered trademark of the American Medical Association (AMA). CPT® five digit codes, nomenclature, and other data

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Dyspepsia/Upper Abdominal Symptoms (EGD-1.1)

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The following are indications for EGD in individuals with dyspepsia or upper abdominal symptoms. Dyspepsia is defined by the American College of Gastroenterology (ACG) and Canadian Association of Gastroenterology (CAG) as predominant epigastric pain lasting at least one month and can be associated with any upper gastrointestinal symptoms such as epigastric fullness, nausea, vomiting, or heartburn.

- New-onset symptoms in individuals ≥ 60 years of age.
- Individuals < 60 years of age without red flag symptoms for EITHER of the following:
  - EGD is medically necessary if failure of a trial of empiric acid suppression therapy for 4 weeks*
    - *Proton pump inhibitor (PPI) taken daily unless there is a documented history of allergy or intolerance to PPI use (in which case a different acid suppression therapy should be tried)
  - EGD is medically necessary if failure after an initial "test and treat" approach for H. pylori
    - Post-treatment eradication of H.pylori should be confirmed 4 weeks after therapy completion using non-invasive methods (e.g., urea breath test OR fecal antigen test) OR
    - Invasive biopsy-based testing can be considered in high risk clinical scenarios (examples: large gastric ulcers or gastric MALT lymphoma).
- Any age with presence of ANY of the following red flag symptoms associated with dyspeptic or upper abdominal symptoms:
  - Family history of any of the following upper gastrointestinal (UGI) malignancies in a first-degree relative:
    - Esophageal
    - Gastric
      - For asymptomatic individuals with a family history of gastric cancer, see: **Gastric Intestinal Metaplasia (GIM) (EGD-1.6)**
    - Duodenal
  - Documentation of unintentional weight loss of ≥ 10 lbs. or ≥ 5% of body weight over 6 months or less, without an identifiable reason
  - GI bleeding presumed to be UGI in origin by ONE of the following:
    - History and/or physical examination (e.g., black tarry stool/melena, hematemesis; not hemorrhoidal bleeding)

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        - Laboratory data (e.g., elevated BUN associated with GI blood loss, positive fecal occult blood, FIT testing including Cologuard®)
    - Iron-deficiency anemia presumed to be UGI in origin, as manifested by low hematocrit or hemoglobin AND ONE of the following:
        - Low serum iron
        - Low serum ferritin (≤ 45 ng/mL or < lab lower limit if higher than 45 ng/mL)
        - Elevated serum iron binding capacity
        - Low serum transferrin saturation
    - Documentation of dysphagia
    - Odynophagia characterized by chest pain on swallowing
    - Persistent or cyclic vomiting of unknown cause ≥ 7 days
    - Abnormal imaging study suggesting organic disease in ONE of the following:
        - Esophagus
        - Stomach
        - Duodenum
    - Clinical suspicion of malignancy as evidenced by ONE OR MORE of the following:
        - Abdominal pain with associated weight loss
        - GI bleeding
        - Anorexia
        - Cachexia
        - A palpable intra-abdominal mass or lymphadenopathy noted on physical examination
- Epigastric pain suggesting pancreatic or biliary source (e.g., pain radiating to the back, elevated liver enzymes, jaundice, etc.) should undergo cross-sectional imaging prior to EGD.
    - EGD can be approved in this context once advanced imaging studies rule out a pancreatic or biliary source of pain.
- Symptoms that are considered functional in origin:
    - EGD may be done ONCE to rule out organic disease especially if symptoms are unresponsive to therapy, or recur that are different from the original symptoms
- Belching, bloating, and/or abdominal distention alone is/are not an indication for EGD. See: **General and Therapeutic EGD (EGD-1.7)** for circumstances when EGD is indicated with these symptoms.

Background and Supporting Information

- Dyspepsia/Upper abdominal symptoms

- "Test and treat" approach is a strategy for addressing dyspepsia in which H. pylori is investigated and treated if found. If dyspepsia is resolved with this approach, further diagnostics may not be necessary.
- Studies comparing "test and treat" approach with endoscopy have reported no difference in symptom control, with most studies also showing increased cost with an "initial endoscopy" approach (ASGE). A potential advantage of negative endoscopy in the evaluation of dyspeptic individuals is a reduction in anxiety and an increase in individual satisfaction, yet there is little evidence to suggest significant improvement with outcomes by this approach (ASGE)
- There is a significant difference in guidelines proffered by the ACG and ASGE. ACG guidelines (2017) establish the age for endoscopy with new symptoms at ≥ 60 years, rather than 50 years for the ASGE, and in fact, do not recommend endoscopy even in the presence of red flag symptoms for most individuals < 60 years of age because of a low positive predictive value for detecting UGI malignancy in this age group

The following approaches were offered by the American Gastroenterological Association (AGA) as Best Practice Advice in evaluation and management of belching, abdominal bloating, and distension:

- Clinical history and physical examination findings and impedance pH monitoring can help to differentiate between gastric and supra-gastric belching.
- Rome IV criteria should be used to diagnose primary abdominal bloating and distention.
- Carbohydrate enzyme deficiencies may be ruled out with dietary restriction and/or breath testing. In a small subset of at-risk patients, small bowel aspiration or biopsy may be warranted.
- Serologic testing may rule out celiac disease in patients with bloating and, if serologies are positive, a small bowel biopsy should be done to confirm the diagnosis.
- Abdominal imaging and upper endoscopy should be restricted to patients with alarm features, recent worsening symptoms, or an abnormal physical examination.
- Gastric emptying studies should not be ordered routinely for bloating and distention, but may be considered if nausea and vomiting are present.
- Whole gut motility and radiopaque transit studies should be restricted to patients with refractory lower GI symptoms and suspected neuromyopathic conditions.
- When abdominal bloating and distention may be related to constipation or difficult evacuation, anorectal physiology testing is suggested to rule out a pelvic floor disorder.

Evidence Discussion

Dyspepsia/Upper Abdominal Symptoms

Endoscopy remains an invasive procedure that is relatively expensive, despite its value in differentiation between organic and functional etiologies of dyspepsia. Thus selective use in high risk individuals is the most cost effective approach.

The ACG/CAG guidelines published in 2017 suggest that individuals over the age of 60 that present with dyspeptic symptoms first undergo an upper endoscopy. If the individual is under the age of 60, upper endoscopy is not recommended. Studies have shown that even in the presence of alarm features, the risk of malignancy is still low < 1%. The ASGE guidelines further notes that identification of alarm features has a low predictive value for GI cancer. In a meta-analysis of 15 studies evaluating more than 57,000 individuals with dyspepsia alarm symptoms showed a positive predictive value for GI cancer of less than 11% in all but 1 of the studies.

The ACG/CAG guideline addressed treating for Helicobacter pylori if under the age of 60 and if H. Pylori testing negative consider an empiric trial of a proton pump inhibitor. If individuals do not respond to the above intervention and are below the age where upper endoscopy is recommended additional therapeutic options are presented.

GERD (Gastro-esophageal reflux disease) (EGD-1.2)

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This section refers to typical GERD quantified by symptoms of heartburn and/or regurgitation. Heartburn is defined by the ACG as "substernal burning sensation rising from the epigastrium up toward the neck". Regurgitation is the "effortless return of gastric contents upward toward the mouth, often accompanied by an acid or bitter taste".

Typical GERD

- EGD is medically necessary for typical GERD with the following:
  - Failure to respond to appropriate anti-secretory medical therapy with an 8-week trial of empiric PPIs once daily (or 4-week trial twice daily), OR
  - Return of symptoms after discontinuation of provider-directed, appropriate anti-secretory medical therapy with an 8 week trial of empiric PPIs once daily (or 4-week trial twice daily)
- EGD is medically necessary if any of the following accompany GERD symptoms:
  - Documentation of dysphagia
  - Odynophagia characterized by chest pain on swallowing
  - Documentation of unintentional weight loss of ≥ 10 lbs. or ≥ 5% of body weight over 6 months or less, without an identifiable reason
  - Hematemesis
  - GI bleeding presumed to be UGI in origin by one of the following:
    - History and/or physical examination (e.g., black tarry stool/melena, hematemesis; not hemorrhoidal bleeding)
    - Laboratory data (e.g., elevated BUN associated with GI blood loss, positive fecal occult blood, FIT testing including Cologuard®)
  - Iron-deficiency anemia presumed to be UGI in origin, as manifested by low hematocrit or hemoglobin AND one of the following:
    - Low serum iron
    - Low serum ferritin (≤45 ng/mL or <lab lower limit if higher than 45 ng/mL)
    - Elevated serum iron binding capacity
    - Low serum transferrin saturation
  - Multiple risk factors for Barrett's esophagus (see: **Barrett's Esophagus (EGD-1.3)**)
  - Finding of an UGI mass, stricture, or ulcer on imaging studies (CT, MRI, US)

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- Persistent vomiting (≥ 7 days)

Chest Pain Attributed to Reflux (Non-cardiac Chest Pain)

- If accompanied by typical GERD symptoms, refer to typical GERD indications above
- If not accompanied by typical GERD symptoms,
  - Diagnostic testing should be based on a structured assessment of cardiac risk [104]
    - ECG is required to assess both acute and stable chest pain before an EGD indication may be considered,
  - EGD is medically necessary for an individual referred from a cardiologist for GI work-up
  - Additional testing is not required, but may include:
    - Functional testing (exercise ECG, stress echocardiography, stress nuclear myocardial perfusion [MPI], or stress cardiac magnetic resonance [CMR] imaging) or anatomic testing (coronary computed tomography angiography [CCTA]),
    - Chest radiographs may not lead to a diagnosis that requires intervention, and its use should be guided by clinical suspicion

Extra-Esophageal Reflux

- Extra-esophageal symptoms of GERD include symptoms of chronic cough, throat-clearing, hoarseness, globus sensation, asthma, and/or laryngitis
- For extra-esophageal reflux accompanied by typical GERD symptoms (heartburn, regurgitation), EGD is medically necessary when:
  - There is failure to respond to an 8-12 week trial of PPI therapy twice daily
- For extra-esophageal reflux not accompanied by typical GERD symptoms, EGD is medically necessary for ANY of the following:
  - Evaluation has been performed by the appropriate specialty (e.g. ENT, pulmonary, or allergy evaluation as indicated) OR
  - There is failure to respond to an 8-12 week trial of PPI therapy twice daily

Additional Indications

- Evaluation of individuals who are PPI-dependent* and being considered for endoscopic or surgical anti-reflux procedures (e.g., Nissen fundoplication)
  - *Unless there is documented history of allergy or intolerance to PPI use
- Evaluation of individuals with recurrent symptoms after endoscopic or surgical anti-reflux procedures
- Placement of wireless pH monitoring

- One-time repeat EGD in individuals found to have erosive esophagitis (Los Angeles Classification B, C, or D) after an 8-12 week course of PPI* therapy to exclude Barrett's esophagus or dysplasia
  - *Unless there is a documented history of allergy or intolerance to PPI use
- Symptoms that are considered functional in origin:
  - EGD may be done ONCE to rule out organic disease especially if symptoms are unresponsive to therapy, or recur that are different from the original symptoms

Background and Supporting Information

- GERD
  - Individual choice to defer a trial of physician-directed acid suppression therapy, in the absence of known drug intolerance or contraindication, is not of itself an indication to perform upper endoscopy
  - If the individual's history is consistent with typical or uncomplicated GERD, an initial trial of empiric medical therapy is appropriate before consideration of endoscopy in most individuals
  - Endoscopy is not medically necessary for the evaluation of individuals with suspected extra-esophageal manifestations of GERD who present with symptoms such as choking, coughing, asthma, hoarseness, laryngitis, chronic sore throat, or dental erosions
  - (ASGE) Given that the majority of these individuals will not have endoscopic evidence of erosive esophagitis, especially when taking empiric medical therapy for GERD, the routine use of EGD to evaluate extra-esophageal symptoms of GERD is NOT medically necessary
    - See: **GERD (Gastro-esophageal reflux disease) (EGD-1.2)** for specific instances in which evaluation of extra-esophageal symptoms with EGD is medically necessary
  - There is a paucity of outcomes research to suggest that early or even once-in-a-lifetime EGD has a favorable effect on the management, course, or health-related quality of life of individuals with typical symptoms of GERD without red flag symptoms (ASGE)

Evidence Discussion

Current established criteria for use of EGD:

- Failure of treatment with PPI daily for 8 weeks or PPI twice a day for 4 weeks or a return of symptoms after provider directed treatment. It would be unnecessary to perform an EGD when symptoms have resolved after a course of treatment.

- With red flags of dysphagia odynophagia, unintentional weight loss >5 % within past 6-12 months, hematemesis, GI bleeding, iron deficiency anemia, EGD should be performed immediately in order to not delay care.
- Persistent vomiting for at least 7 days which is unexplained would warrant an EGD.
- Abnormal findings on imaging studies would warrant an EGD for further evaluation.
- One time repeat EGD to ensure healing and to take biopsies to rule out Barrett's esophagus, after erosive esophagitis (LA class B or higher) after 8- 12 weeks of PPI treatment. This is necessary to rule out or establish diagnosis of Barrett's as this is important for future surveillance.
- Individuals who are PPI dependent and are being considered for surgical or endoscopic anti reflux procedures would need an EGD preoperatively to assess anatomy and rule out other organic disease. Also, individuals who have recurrent symptoms after anti reflux procedures would need an EGD to rule out any complications that arise due to the anti reflux procedure.
- One time EGD can be considered in individuals with functional symptoms in order to rule out organic disease.
- Placement of wireless pH monitoring is an indication for EGD as some individuals have persistent symptoms despite treatment and pH monitoring may be necessary to prove the individual does indeed have reflux.

Barrett's Esophagus (EGD-1.3)

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- Screening for Barrett's Esophagus
  - Individual with chronic GERD symptoms (defined as weekly symptoms for 5 or more years) AND at least 3 of the following risk factors:
    - Age ≥ 50 years
    - Caucasian race
    - Male sex
    - Obesity
    - History of tobacco smoking
    - Family history of a first-degree relative with Barrett's esophagus or esophageal adenocarcinoma
  - Positive results of non-invasive screening (e.g., esophageal sponge, EsoGuard) warrant endoscopic and histologic confirmation of Barrett's esophagus
- For removal or serial endoscopic treatment of known lesions, including ablation, see: **General and Therapeutic EGD (EGD-1.7)**
- Surveillance for Barrett's Esophagus
  - If initial endoscopy suggests Barrett's Esophagus (defined as an extension of salmon-colored mucosa into the tubular esophagus ≥ 1cm) and biopsy is negative for intestinal metaplasia:
    - Endoscopy can be repeated in 1-2 years to rule out Barrett's Esophagus
  - If initial endoscopy is negative for Barrett's Esophagus, repeating endoscopy to evaluate for the presence of Barrett's Esophagus is NOT medically necessary.
  - Initial pathology findings suggestive of, or indefinite for, dysplasia of any grade should be confirmed by a second pathologist. Preferably, at least one of the pathologists should have specialized expertise in gastrointestinal pathology. Subsequent treatment and follow-up requests do not require review by two pathologists.
  - In diagnosed Barrett's esophagus with no dysplasia on screening EGD (Non-dysplastic Barrett's esophagus or NDBE):
    - Repeat EGD in 3 to 5 years[55]
  - If findings are indefinite for dysplasia on screening EGD:
    - Repeat EGD within 6 months
      - If repeat EGD yields a diagnosis of non-dysplastic Barrett's epithelium (NDBE), follow surveillance intervals for NDBE

- If repeat EGD yields a diagnosis of low-grade dysplasia, follow surveillance intervals for low-grade dysplasia
- If repeat EGD continues to demonstrate Barrett's esophagus indefinite for dysplasia, continue surveillance annually

◦ If findings reveal low-grade dysplasia on screening EGD, and it is elected to pursue endoscopic surveillance instead of treatment:

▪ Repeat EGD at 6 and 12 months from diagnosis, then annually

- Post-endoscopic complete eradication (defined as 2 consecutive negative EGDs) achieved with any technique including post-ablative therapy, submucosal resection, or submucosal dissection of malignancy or dysplasia[54]

◦ If treated for low-grade dysplasia:

▪ EGD at 1 and 3 years following complete eradication, then every 2 years thereafter

◦ If treated for high-grade dysplasia, intramucosal carcinoma, or submucosal carcinoma:

▪ EGD at 3, 6, 12, 18, and 24 months following complete eradication, then annually thereafter

◦ If recurrence of metaplasia or dysplasia is discovered:

▪ Refer to the surveillance for Barrett's esophagus guidelines above

Background and Supporting Information

- Barrett's Esophagus
  - ◦ If initial endoscopy is negative for Barrett's Esophagus, repeating endoscopy to evaluate for the presence of Barrett's Esophagus is NOT medically necessary
  - ◦ If initial examination shows BE but no dysplasia, follow-up endoscopy in one year is NOT medically necessary. Follow prescribed guidelines
- Sleeve gastrectomy may be an independent risk factor for Barrett's esophagus and esophageal adenocarcinoma that may warrant Barrett's screening post-gastrectomy in the absence of GERD symptoms.

Evidence Discussion

Screening with upper endoscopy is indicated in individuals with chronic gastroesophageal reflux disease (symptoms for 5 or more years) and at least 3 established risk factors for Barrett's esophagus (BE) and esophageal adenocarcinoma, including individuals who are male, non-Hispanic white, age >50 years, have a history of smoking, obesity, or a family history of Barrett's esophagus (BE) or esophageal adenocarcinoma. Salmon-colored mucosa of at least 1 cm in length is necessary for a diagnosis of Barrett's esophagus (BE). Endoscopy can be repeated in 1-2 years in those

with visual changes of Barrett's esophagus (BE) but negative pathology. Individuals with nondysplastic Barrett's esophagus (BE) should undergo surveillance endoscopy in 3 to 5 years. Endoscopic surveillance is indicated in individuals with Barrett's esophagus (BE) at intervals dictated by the degree of dysplasia noted on previous biopsies. Endoscopy can be repeated within 6 months in individuals with Barrett's esophagus (BE) indefinite for dysplasia, any length. If opting for endoscopic surveillance in individuals with Barrett's esophagus (BE) with low -grade dysplasia (LGD), repeat EGD at 6 month, 12 months and annually thereafter. Endoscopic eradication therapy (EET) is indicated in individuals with Barrett's esophagus (BE) with confirmed low-grade dysplasia (LGD) and high -grade dysplasia (HGD). Endoscopic surveillance is indicated in individuals with Barrett's esophagus (BE) who have completed successful EET. Timeframe for endoscopic surveillance is based on National Society Guidelines.

Gastric Ulcer (EGD-1.4)

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- Surveillance EGD is medically necessary for ANY of the following:
  - In individuals whose gastric ulcer appears endoscopically suspicious for malignancy even if biopsies are benign, after 8-12 weeks of treatment (PPI* and/or H. pylori treatment)
    - *Unless there is a documented history of allergy or intolerance to PPI use
  - In individuals who remain symptomatic despite an appropriate course of therapy (PPI* and/or H. pylori treatment) to rule out refractory peptic ulceration, non-peptic benign etiologies, and occult malignancy
    - *Unless there is a documented history of allergy or intolerance to PPI use
  - In individuals with gastric ulcer without a clear etiology (e.g. no NSAID use, no H. pylori, etc.)
  - In individuals with gastric ulcer who did not undergo biopsy at the index endoscopy due to enhanced risk or inability to perform biopsy for medical reasons (e.g., active bleeding, coagulopathy, etc.)
  - In individuals diagnosed with gastric ulcer via radiologic imaging
  - Giant ulcers (> 3cm), or refractory ulcers (fail to heal despite 8-12 weeks in therapy):
    - Surveillance EGD every 8-12 weeks until healing is documented

Evidence Discussion

Gastric ulcers present with a variety of symptoms and have many causes. The main causes are Helicobacter pylori bacterial infection (H. pylori), non-steroidal inflammatory drug (NSAIDs) induced ulcers, and malignancy.

Other causes include acid-peptic disease and other chronic inflammatory diseases.

Esophagogastroduodenoscopy (EGD) is indicated for suspected ulcers when there is no response to accepted therapy or if red flags are present (bleeding, vomiting, weight loss, and others). For those individuals with an ulcer diagnosed by EGD, repeat EGD (surveillance) is medically necessary if:

- The gastric ulcer appears endoscopically suspicious for malignancy (even if biopsies are benign).
- In individuals who remain symptomatic despite appropriate course of therapy to rule out refractory ulceration.
- There is a gastric ulcer without a clear etiology.

- In individuals who did not undergo biopsy at the index endoscopy.
- In individuals with giant ulcers (>3 cm).
- In individuals with persistent ulcer seen on EGD; surveillance EGD every 8-12 weeks until healing is documented.
- EGD should also be performed in individuals with gastric ulcer diagnosed via radiologic imaging.

Surveillance may be indicated as it has been shown that some individuals with endoscopically benign-appearing gastric ulcerations may eventually be shown to have gastric cancer. Although the efficacy of surveillance is unclear, an analysis of the Clinical Outcomes Research Initiative database found that approximately 25% of individuals diagnosed with gastric ulceration undergo repeat endoscopy despite the fact that multiple studies have found limited yield in identifying malignancy with surveillance endoscopy (ASGE). Therefore, the above recommendations have been created to select those patients who may have a higher risk of malignancy and a higher risk of complications from benign gastric ulcers due to non-healing.

Duodenal Ulcer (EGD-1.5)

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- Surveillance EGD is medically necessary for ANY of the following:
  - In individuals with duodenal ulceration who experience persistent symptoms despite an appropriate course of therapy, specifically to rule out refractory peptic ulcers and ulcers with non-peptic etiologies
    - Symptoms include: dyspepsia, epigastric pain (sometimes with radiation to the back or to the right or left upper quadrants, nausea and/or vomiting, early satiety, belching, fullness)
  - Giant duodenal ulceration (>2 cm), or refractory ulcers (fail to heal despite 8-12 weeks in therapy):
    - Surveillance EGD every 8-12 weeks until healing is documented

Evidence Discussion

Duodenal ulcers may be caused by infection with Helicobacter pylori bacteria (H. pylori), use of non-steroidal inflammatory drugs (NSAIDs), acid-peptic disease, neoplasm, and other chronic inflammatory disease. In individuals with established duodenal ulcer, EGD may be medically necessary:

- In individuals with duodenal ulceration who experience persistent symptoms despite an appropriate course of therapy, specifically to rule out refractory peptic ulcers and ulcers with non -peptic etiologies.
  - Symptoms include: dyspepsia, epigastric pain (sometimes with radiation to the back or to the right or left upper quadrants, nausea and/or vomiting, early satiety, belching, fullness)
- In individuals with giant duodenal ulceration (>2 cm), or refractory ulcers (fail to heal despite 8 -12 weeks in therapy): Surveillance EGD should be performed every 8 -12 weeks until healing is documented.

As more than 90% of duodenal ulcers heal with 4 weeks of PPI therapy, the above recommendations have been created to survey individuals with high risk for developing complications or neoplasm.

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Gastric Intestinal Metaplasia (GIM) (EGD-1.6)

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- Dysplasia is detected
  - GIM with high-grade dysplasia
    - EGD can be repeated immediately, and then every 6 months
  - GIM with low-grade dysplasia
    - EGD every 12 months
- Absence of dysplasia
  - EGD within 1 year for risk stratification
    - For high-risk individuals (Hispanic/Latin American, Asian, African, or North American Indigenous heritage/descent/ancestry; first-degree relative with gastric cancer) OR
    - Documented presence of high-risk stigmata (visually detected abnormalities such as nodularity) OR
    - Documented concern regarding the completeness of the baseline endoscopy (e.g., biopsies from only one region of the stomach)
  - EGD every 3-5 years from the baseline or after the above risk-stratification for:
    - Incomplete metaplasia (at least partial colonic metaplasia as opposed to complete small intestinal metaplasia) OR
    - High-risk individuals as indicated above OR
    - Extensive vs. limited metaplasia (involving the gastric body plus either antrum and/or incisura)
  - No further EGD for the surveillance of metaplasia:
    - If not identified by any one of the above-noted criteria (e.g., not a high-risk individual, complete small intestinal metaplasia, limited extent, no dysplasia)
- One-time endoscopic screening for gastric cancer in an asymptomatic individual age ≥ 50 years with ANY of the following risk factors:[80-82]
  - Family history of a first-degree relative with gastric cancer
  - Hispanic/Latin American, Asian, African, or North American Indigenous heritage/ descent/ancestry
    - If gastric intestinal metaplasia is found, follow current surveillance guidelines. If screening EGD is negative, no further screening EGD is needed.

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- See: **Genetic Syndromes (EGD-1.16)** for individuals with known genetic syndromes

Evidence Discussion

Upper endoscopy is indicated in individuals with GIM with dysplasia within 6 months (if high grade dysplasia) to 12 months (if low grade dysplasia). In the absence of dysplasia, in individuals with GIM, repeat upper endoscopy every 3–5 years for surveillance is indicated. In individuals with GIM and high-risk stigmata, concerns about completeness of baseline endoscopy, and/or who are at overall increased risk for gastric cancer (racial/ethnic minorities, immigrants from regions with high gastric cancer incidence, or individuals with family history of first-degree relative with gastric cancer), repeat endoscopy is indicated within 1 year for risk stratification. One-time endoscopic screening for gastric cancer can be approved, irrespective of presence of symptoms, in individuals' ≥ 50 years of age, with a family history of gastric cancer in a first-degree relative and those belonging to racial/ethnic groups at increased risk for gastric cancer (African Americans, Alaskan Natives, American Indians, Asian Americans, and Hispanic Americans).

General and Therapeutic EGD (EGD-1.7)

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- Evaluation of documented dysphagia
- Evaluation of odynophagia characterized by chest pain on swallowing
- Persistent or cyclic vomiting of unknown cause ≥7 days
- GI bleeding presumed to be UGI in origin by ONE of the following:
  - History and/or physical examination (e.g., black tarry stool/melena, hematemesis; not hemorrhoidal bleeding)
  - Laboratory data (e.g., elevated BUN associated with GI blood loss, positive fecal occult blood, FIT testing including Cologuard®)
- Iron-deficiency anemia presumed to be UGI in origin, as manifested by low hematocrit or hemoglobin AND one of the following:
  - Low serum iron
  - Low serum ferritin (≤45 ng/mL or <lab lower limit if higher than 45 ng/mL)
  - Elevated serum iron binding capacity
  - Low serum transferrin saturation
- If colonoscopy is planned for the evaluation of iron-deficiency anemia, an EGD can be performed, if requested, at the same time.
- To assess acute injury after caustic ingestion
  - Examples include: strong acids (sulfuric, hydrochloric, nitric), alkalines (lye, sodium hydroxine, oven cleaner, drain cleaner, disc batteries, ammonia, bleach).
- Screening for esophageal cancer after distant caustic ingestion:
  - EGD every 2 years beginning 10 years after caustic ingestion insult
- Other diseases in which the presence of UGI pathology would modify other planned management, such as persons with a history of ulcer disease scheduled for organ transplantation, anticipation of long-term anticoagulation, or NSAID therapy.
- To assess diarrhea in individuals suspected of having small bowel disease:
  - EGD with small bowel biopsy is indicated in individuals with chronic diarrhea after a workup to determine the cause of chronic diarrhea is inconclusive and malabsorption is suspected
    - Workup of chronic diarrhea [91] should include fecal calprotectin or fecal lactoferrin, stool analysis for giardia PCR or giardia antigen.
      - If concern for Celiac Disease, see: **Celiac Disease (EGD-1.18)**

        - EXCEPTION: HIV and Graft-vs.-Host Disease: in the absence of a diagnosis on flexible sigmoidoscopy, an EGD can be performed
- Removal of foreign bodies
- Removal or serial endoscopic treatments of known lesions, including ablation
    - Known polyp(s) which have not yet been removed
    - Bleeding lesions (such as known AVM, ulcers, or tumors requiring ablation, cautery, or other treatment)
- Placement of a feeding or drainage tube
    - Examples include: Peroral, percutaneous endoscopic gastrostomy, percutaneous endoscopic jejunostomy
- Dilation, stenting, and other therapeutic interventions for initial and serial treatment of benign or malignant stenotic lesions
    - Examples include: use of transendoscopic balloon dilators, dilation systems using guidewires, electrocoagulation, stents
- Management of achalasia
    - Examples include: endoscopic dilation, Botox® injection
- Diagnosis and management of eosinophilic esophagitis
    - See: **Eosinophilic Esophagitis (EOE) (EGD-1.17)**
- Intra-operative evaluation of anatomic reconstructions
    - Examples include: Evaluation of anastomotic leak and patency, fundoplication formation, pouch configuration during bariatric surgery
- For confirmation and specific histologic diagnosis of radiologically demonstrated lesions involving the UGI tract
    - Examples include: suspected neoplastic lesions of the esophagus, stomach, or duodenum, gastric or esophageal ulceration, upper tract stricture, or obstruction
        - EGD is NOT medically necessary to evaluate radiologic findings for:
            - Asymptomatic or uncomplicated sliding hiatal hernia
            - Uncomplicated duodenal ulcer that has responded to therapy
            - Deformed duodenal bulb when symptoms are absent or respond to therapy
- For sampling of tissue or fluid when clinically appropriate
    - Examples include: biopsy of small bowel for suspected celiac disease when appropriate (see: **Celiac Disease (EGD-1.18)** for indications), suspected upper GI infection, collection of gastric or duodenal fluid for analysis, suspected upper GI Crohn's (see: **Inflammatory Bowel Disease (IBD) (EGD-1.19)**.
    - For specific indications (Like Barrett's esophagus, diarrhea, etc.) for which guidelines exist, follow the specific guideline for that condition

- Carbohydrate enzyme deficiencies (e.g., disaccharidase deficiency) should be ruled out with dietary restriction and/or breath testing. In the small subset of at-risk individuals who do not respond to dietary restriction, small bowel aspiration or biopsy may be warranted

- Evaluation and treatment of gastric outlet obstruction
  - Generally characterized by epigastric pain and vomiting after meals (signs and symptoms may include nausea, vomiting, epigastric pain, unintentional weight loss, abdominal distention, early satiety)
- Belching, bloating, and/or abdominal distention
  - EGD is medically necessary when belching, bloating, or abdominal distention is accompanied by ANY of the following:
    - History of malignancy with a likelihood or propensity to metastasize to abdomen
    - Fever (≥101 degrees Fahrenheit)
    - Elevated WBC >10,000, or above the upper limit of normal for the particular lab reporting the result
    - Palpable mass of clinical concern and/or without benign features
    - GI bleeding, overt or occult, not obviously hemorrhoidal
    - Abdominal tenderness documented as moderate or severe
    - Suspected complication of bariatric surgery
    - New onset of symptoms at age >60 years
    - Unintentional weight loss of ≥10 lbs. or ≥5% of body weight over 6 months or less, without an identifiable reason
- Management of operative complications
  - Examples include: dilation of anastomotic strictures, stenting of anastomotic disruption, fistula, or leak
- Gastroesophageal varices in the setting of portal hypertension or cirrhosis[89]
  - One-time initial screening for gastroesophageal varices is medically necessary
    - If varices are absent at initial screening:
      - Repeat EGD in 2 years in the presence of ongoing liver injury or disease cofactors are present
      - Repeat EGD in 3 years in the absence of ongoing liver injury
    - If varices are found at initial screening:
      - Repeat EGD every 1 year in presence of ongoing liver injury
      - Repeat EGD every 2 years in absence of ongoing liver injury
  - After eradication of gastroesophageal varices:

        - First EGD performed 3-6 months after eradication, then every 6-12 months indefinitely
    - Decompensated cirrhosis
        - Surveillance EGD every 1 year

Evidence Discussion

Upper gastrointestinal endoscopy (EGD) is a useful tool for the clinical evaluation of numerous disorders in the upper GI tract. The ASGE states that "EGD affords an excellent view of mucosal surfaces of the esophagus, stomach, and proximal duodenum. Direct examination of the mucosal surface provides far greater information than that gained by 2-dimensions scans and x-rays".

Indications for its use include evaluation of dysphagia, odynophagia, persistent vomiting, GI bleeding, etc.

EGD is also useful for evaluation of diseases in which the presence of UGI pathology would modify other planned management, such as persons with a history of ulcer disease scheduled for organ transplantation, anticipation of long-term anticoagulation, or NSAID therapy.

EGD also facilitates the removal of foreign bodies, food bolus, and tissue samples for biopsy. Additionally, it facilitates the treatment of lesions, placement of feeding tubes, and management of stenosis.

EGD is not indicated to evaluate radiologic findings for asymptomatic or uncomplicated sliding hiatal hernia, uncomplicated duodenal ulcer that has responded to therapy, or deformed duodenal bulb when symptoms are absent or respond to therapy.

The uses of EGD as outlined in the guidelines are supported by the ASGE as general indications for EGD. The ASGE states that EGD is "generally not indicated when the results will not contribute to a management choice or for periodic follow-up of healed benign disease unless surveillance of a premalignant condition is warranted".

Upper GI Polyp Treatment and Follow-up (EGD-1.8)

GI.PT.0001.8.C
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- Adenomatous gastric polyps
  - Endoscopy 1 year after resection, followed by surveillance EGD every 3-5 years
- Hyperplastic gastric polyps resected, without dysplasia
  - Repeat EGD in 1 year
    - If polyp persists or dysplasia is present, and it is resected, repeat EGD in 1 year
  - Hyperplastic polyps without dysplasia generally do not require additional surveillance. However, in the course of endoscopy for hyperplastic gastric polyps, the standard of care should include mucosal sampling.
    - Additional follow-up for hyperplastic polyps without dysplasia
      - Mucosal sampling detects intestinal metaplasia
        - Follow-up per **Gastric Intestinal Metaplasia (EGD-1.6)**
      - Mucosal sampling detects gastric atrophy
        - Follow-up per OLGA stage. See: **Atrophic Gastritis (EGD-1.9)**
- Hyperplastic polyps with dysplasia
  - Annual EGD if requested
- EGD may be repeated to remove suspicious appearing gastric polyps >0.5cm in size when benign histology has not been determined at the time of initial endoscopy
- Follow up of duodenal polyp(s) (sporadic duodenal tumors not associated with genetic syndromes)[69, 70]
  - Superficial non-ampullary duodenal tumors
    - EGD is indicated 3 months after initial treatment
      - If no recurrence on EGD after initial treatment, repeat EGD is indicated in 1 year
  - Ampullary duodenal tumors
    - EGD is indicated within 3 months of initial treatment
      - Repeat EGD is indicated at 6 and 12 months after initial treatment, and yearly thereafter for 5 years
  - Note: if a duodenal adenoma is detected, a colonoscopy is also indicated.

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  - For resection of previously biopsied adenomatous or dysplastic polyp(s), see: **General and Therapeutic EGD (EGD-1.7)**
  - For screening and surveillance of individuals with genetic syndromes, see: **Genetic Syndromes (EGD-1.16)**
- Sequential or periodic EGD is NOT indicated for surveillance of malignancy in individuals with:
  - Fundic gland polyps
  - Previous gastric operations for benign disease
  - Surveillance of healed benign disease such as esophagitis and gastric or duodenal ulcer

Atrophic Gastritis (EGD-1.9)

GI.AG.0001.9.A
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- OLGA (Operative Link on Gastritis Assessment) stage 3 or 4
  - Endoscopic surveillance can be performed every 3 years
- OLGA stage 3 or 4 AND first-degree relative with gastric cancer
  - Endoscopic surveillance can be performed yearly
- Autoimmune atrophic gastritis
  - EGD every 3 years

Background and Supporting Information

- Atrophic Gastritis
  - OLGA score[68]:

	Atrophy score	Corpus			
		No atrophy	Mild atrophy	Moderate atrophy	Severe atrophy
Antrum	No atrophy (score 0) (including incisura angularis)	Stage 0	Stage I	Stage II	Stage II
	Mild atrophy (score 1) (including incisura angularis)	Stage I	Stage I	Stage II	Stage III
	Moderate atrophy (score 2) (including incisura angularis)	Stage II	Stage II	Stage III	Stage IV
	Severe atrophy (score 3) (including incisura angularis)	Stage III	Stage 0	Stage IV	Stage IV

Evidence Discussion

Endoscopic surveillance is indicated in individuals with atrophic gastritis, guided by the OLGA (Operative Link on Gastritis Assessment) staging system. Specifically, individuals with OLGA stage 3 or 4 atrophic gastritis are eligible for endoscopic surveillance every 3 years, with annual surveillance for those who also have a first-degree relative with

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gastric cancer. Additionally, individuals with autoimmune atrophic gastritis are covered for endoscopic surveillance every 3 years. Endoscopic surveillance aims to improve early detection and prevention of gastric cancer in high-risk populations, in accordance with National Society Guidelines.

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Pernicious Anemia (EGD-1.10)

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- EGD is medically necessary within 6 months of the diagnosis of pernicious anemia
  - Diagnosis of pernicious anemia as demonstrated by:
    - Vitamin B12 level below normal (<300 pg/mL) or elevated MMA (methylmalonic acid) AND one of the following:
      - Positive for anti-IF antibodies (intrinsic factor) OR
      - Positive for anti-parietal cell antibodies OR
      - Other laboratory findings consistent with Vitamin B12 deficiency including elevated MCV (mean corpuscular volume) and hypersegmented neutrophils seen on CBC OR
      - Other laboratory findings consistent with gastric atrophy (i.e., elevated fasting serum gastrin or decreased serum Pepsinogen I)
- Follow-up examinations indicated only for the development of new symptoms
  - If atrophic gastritis is found, refer to **Atrophic Gastritis (EGD-1.9)**.

Evidence Discussion

Pernicious anemia can be seen as a late manifestation of autoimmune gastritis/ autoimmune metaplasic gastritis. Anti-parietal cell antibodies and anti-intrinsic factor antibodies can be ordered to help in the diagnosis of individuals with histologic autoimmune gastritis. Individuals with newly diagnosed pernicious anemia should undergo EGD with biopsies to confirm atrophic gastritis and rule out neoplasia.

To help with the diagnosis of pernicious anemia would need to look for low B12(<300), elevated MMA, and elevation in autoimmune antibodies, hypersegmented neutrophils, elevated MCV and/or findings consistent with gastric atrophy.

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GIST (Gastrointestinal Stromal Tumors) (EGD-1.11)

GI.GST.0001.11.A

v1.0.2025

- Annual endoscopic surveillance of GISTs smaller than 2 cm if surgical resection is not performed, to determine progression of size or changes in echo features

Evidence Discussion

Gastrointestinal stromal tumors (GIST) are the most common mesenchymal tumors of the gastrointestinal tract. They are often identified incidentally during endoscopic or imaging studies. GISTs smaller than 2 cm are typically considered low-risk for malignancy. However, surveillance is crucial to monitor for any changes that may indicate progression to a more aggressive form.

Annual endoscopic ultrasound (EUS) and esophagogastroduodenoscopy (EGD) surveillance are recommended for GISTs smaller than 2 cm if surgical resection is not performed. This surveillance aims to detect any increase in size or changes in echo features, which could suggest a higher risk of malignancy. Early detection of such changes can facilitate timely intervention, potentially reducing morbidity and mortality associated with malignant transformation.

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Gastric Neuroendocrine Neoplasms (EGD-1.12)

GI.GN.0001.12.A

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- After resection, endoscopic re-evaluation every 6-12 months for the first 3 years, then annually

Evidence Discussion

Gastric neuroendocrine neoplasms (g-NENs) are a type of tumor arising from the neuroendocrine cells in the stomach. These tumors can vary in behavior from benign to highly malignant. After resection, regular surveillance is critical to monitor for recurrence or progression.

Following resection, g-NENs can be re-evaluated at frequent intervals via endoscopy initially and then annually. This interval allows for the early detection of any recurrence or new neoplastic growths. Ongoing monitoring helps ensure any changes are identified promptly, allowing for timely intervention and management.

Gastric Marginal Zone Lymphoma (MALT-type) (EGD-1.13)

GI.GZ.0001.13.A
v1.0.2025

- Follow-up after successful H. pylori treatment
  - Endoscopy up to every 3 months for the first 2 years and then up to every 6 months thereafter (optimal surveillance interval has not been defined)

Evidence Discussion

Gastric marginal zone lymphoma of mucosa-associated lymphoid tissue (MALT) is a type of non-Hodgkin B-cell lymphoma that arises from the stomach's lymphoid tissue. It is often associated with Helicobacter pylori (H. pylori) infection, and eradication of H. pylori can lead to regression of the lymphoma in many cases.

After successful H. pylori treatment, frequent follow-up endoscopy is recommended to monitor for recurrence or progression of the lymphoma. The optimal surveillance interval has not been definitively established, but this approach aims to detect any early signs of recurrence, allowing for timely intervention.

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Bariatric Surgery (EGD-1.14)

GI.BS.0001.14.A
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- Pre-operative endoscopic evaluation of the bariatric surgery individual
- Post-operative endoscopic evaluation for the following symptoms:
  - Nausea or vomiting
  - Abdominal pain
  - Post-op GERD
  - Dumping Syndrome
  - Diarrhea and nutritional deficiencies
  - Endoscopic intervention for treatment of stenosis, removal of foreign body material, bezoars, management of fistulae and leaks
  - Bleeding or anemia
  - Failure to lose weight
  - Weight gain after an initial post-operative weight loss

Evidence Discussion

Bariatric surgery in appropriately selected individuals results in a significant and durable weight loss and improvement in weight-related comorbidities. Upper gastrointestinal endoscopy has been shown to be a useful procedure in the management of individuals considering bariatric surgery and those who have undergone a bariatric procedure. The Standards of Practice Committee of The American Society for Gastrointestinal Endoscopy (ASGE) published a guideline entitled "The role of endoscopy in the bariatric surgery patient" in Gastrointestinal Endoscopy in 2015. This position statement also included the American Society of Metabolic and Bariatric Surgery, and the Society of American Gastrointestinal and Endoscopic Surgeons. Preoperative upper endoscopy (EGD) can identify individuals with asymptomatic anatomic findings that may alter surgical planning. Individuals with symptoms of GERD, or any postprandial symptoms , and/or who chronically use antisecretory medications should have an upper GI endoscopy prior to bariatric surgery. Multiple published studies have demonstrated that routine EGD before surgery can identify conditions including hiatal hernia, esophagitis, ulcers, Helicobacter pylori infection, and tumors. 1% to 9% of individuals may have findings that result in a delay or alteration of surgery. Indications for endoscopy in the post-bariatric surgery patient include those with symptoms of nausea, vomiting, and abdominal pain most commonly, as well as symptoms of dumping syndrome. Upper endoscopy is valuable in the diagnosis of marginal ulcers, fistulae, postsurgical GERD, hiatal hernia, and partial or complete anastomotic obstruction. Stomal stenosis, bezoars, GI bleeding and anemia postsurgery can be diagnosed and/or managed endoscopically.

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Failure to lose weight or regaining weight after initial weight loss may indicate anatomic complications that require further intervention.

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Known Malignancies (EGD-1.15)

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- Known Esophageal Malignancy
  - Endoscopy as felt clinically indicated by the ordering provider for the management of complications, treatment, evaluation of ongoing or new symptoms, and surveillance for recurrence
- Known Gastric Malignancy
  - EGD as felt clinically indicated by the ordering provider for the endoscopic management of complications, ongoing or new symptoms, treatment, and surveillance for recurrence
- Known Duodenal or Small Bowel Malignancy
  - EGD as felt clinically indicated by the ordering provider for the management of complications, treatment, ongoing or new symptoms, and surveillance for recurrence

Evidence Discussion

Upper intestinal endoscopy (EGD) may be appropriate when malignancy is known of the esophagus, stomach, or duodenal/small bowel for the purposes of management of complications, treatment, evaluation of ongoing or new symptoms, surveillance for recurrence, or for planning procedures. Liang, et. al. state, "conventional video endoscopy is the gold standard for diagnosing a wide range of upper GI malignancies". EGD allows for visualization, and potentially sampling, staging, or removal of lesions if found.

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Genetic Syndromes (EGD-1.16)

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For asymptomatic individuals with a family history of gastric cancer, see: **Gastric Intestinal Metaplasia (GIM) (EGD-1.6)**

- Lynch Syndrome (NOTE: Screening begins at the stated age as indicated below, or 5 years before the youngest age of diagnosis of colorectal cancer in an affected family member, whichever occurs first)
  - For all mutations (MLH1/MSH2, MSH6/PMS2)
    - EGD beginning at age 30 years, every 2-3 years
- Juvenile Polyposis Syndrome (defined as individuals with 5 or more juvenile polyps in the colorectum or any juvenile polyps in other parts of the GI tract, or evidence of SMAD4 or BMPRI1A mutations, or positive family history of juvenile polyposis syndrome)
  - EGD at age 12 years. If polyps are present, repeat yearly. If no polyps, repeat every 2 years.
- Peutz-Jeghers Syndrome (defined as individuals with perioral or buccal pigmentation and/or 2 or more histologically characteristic hamartomatous polyps, or family history of PJS, or STK11 mutations)
  - EGD at age 8 years
    - If polyps present, can be repeated every 2-3 years.
      - Shorter intervals may be indicated based on polyp size, number, and pathology.
    - If no polyps, repeat at age 18 years old, then every 2-3 years, or earlier if any symptoms occur.
- Hereditary Gastric Cancer (Hereditary Diffuse Gastric Cancer-HDGC Syndrome/ CDH-1 mutation or family history of hereditary gastric cancer)
  - EGD beginning at age 40 years[88] or 10 years before the earliest cancer in the family, up to every 6 months.
- BMMRD (Biallelic Mismatch Repair Deficiency)
  - EGD annually, beginning at age 8 years
- Tylosis (Rare autosomal dominant disorder characterized by hyperkeratosis of the palms and feet, with lifetime risk of esophageal cancer of 40% in Americans)

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- Annual EGD beginning at age 30 years or at the onset of recognition of the disease
- Cowden Syndrome (PTEN Hamartoma Tumor Syndrome)
  - EGD beginning at age 15 years
  - Repeat surveillance every 2 years
  - If polyps present, follow-up EGD at the discretion of the endoscopist, depending on the number of polyps, as felt indicated.
- Classical Familial Polyposis (FAP)/Attenuated FAP
  - EGD beginning at age 20 years
    - EGD before 20 years of age when either of the following are met:
      - Individual has undergone a colectomy prior to the age of 20 years OR
      - Request is prior to a planned colectomy
    - See **Spigelman Stage** for follow-up imaging intervals
- MAP (MUTYH-Associated Polyposis)
  - EGD beginning at age 30 years
  - See **Spigelman Stage** for follow-up imaging intervals
- Li-Fraumeni Syndrome (defined as a syndrome inherited in an autosomal-dominant manner, associated with germline mutations in TP53, and resulting in an increased susceptibility to a variety of cancers)
  - EGD every 2-5 years beginning at age 25 years (or 5 years before the earliest known gastric cancer in the family.[60, 61]
- Spigelman Stage
  - Follow-up imaging depending on Spigelman Stage of duodenal polyposis as follows (using point system):

Polyps	1 Point	2 Points	3 Points
Number	≤4	5-20	>20
Size	0-≤4	5-10	>10
Histology	Tubular	Tubulovillous	Villous
Dysplasia	Mild	Moderate	Severe

Spigelman Stage	Total Points	Surveillance Interval
0	0	Every 3-5 years
I	≤4	Every 2-3 years

Spigelman Stage	Total Points	Surveillance Interval
II	5-6	Every 1-2 years
III	7-8	Every 6-12 months
IV	9-12	Every 3-6 months (if surgery not chosen)

Evidence Discussion

- Cancer genetics summaries focus on the genetics of specific cancers that are inherited cancer syndromes.
- The goal and benefit of cancer surveillance is to identify a genetics-predisposed neoplastic process earlier in the course than standard procedure surveillance/ screening recommendations in the absence of a genetic syndrome.
- The genetics of specific cancers include syndrome-specific information on the risk implications of a family history of cancer, the prevalence and characteristics of cancer-predisposing variants, known modifiers of genetic risk, opportunities for genetic testing, outcomes of genetic counseling and testing, and interventions available for people with increased cancer risk resulting from an inherited predisposition.
- Endoscopy and colonoscopy surveillance recommendations are based on the recommended surveillance intervals for the specific genetic defect when possible, or presence of a genetic-associated specific neoplasm in the absence of genetic assessment.
- If a positive neoplastic finding is identified via surveillance, subsequent endoscopic testing is based on the shorter interval of either the genetic syndrome specific surveillance guideline or specific tumor follow-up oncology recommendations.
- As this is a rapidly changing field, clinical judgment in conjunction with recommended guidelines for specific genetic tumor syndromes are considered when supported by national guidelines.

Eosinophilic Esophagitis (EoE) (EGD-1.17)

GI.EE.0001.17.A
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- Initial EGD is medically necessary for diagnosis of suspected eosinophilic esophagitis in ANY of the following:[63-66]
  - Individuals with typical GERD symptoms refractory to treatment with proton pump inhibitors (PPI)
  - Symptoms of dysphagia or food bolus obstruction
- Repeat EGD is medically necessary for ANY of the following:[63-66]
  - After 8 weeks of dietary or pharmacological EoE treatment:
    - To assess treatment response in individuals with an established diagnosis of EoE
      - When PPIs are prescribed, reassessment should be delayed until completion of PPI therapy twice daily for at least 8 weeks
    - For individuals where a high index of suspicion exists for a diagnosis of EoE, initial histology was not diagnostic, and there exists endoscopic features of EoE or typical symptoms suggestive of EoE
  - After 1 year of treatment for EoE:
    - For individuals where a high index of suspicion exists for a diagnosis of EoE, initial histology was not diagnostic, there exists NO endoscopic features of EoE, and symptoms typical of EoE have been present
  - Any time significant symptoms recur while on any previously effective treatment
  - Annual EGD surveillance (once per year) for the evaluation of disease stability or progression in individuals with established EoE
  - For endoscopic dilation of symptomatic fibrostenotic disease

Background and Supporting Information

- Eosinophilic Esophagitis (EoE)
  - Eosinophilic esophagitis (EoE) is a chronic, immune/antigen-mediated, esophageal disease of increasing recognition and prevalence predominantly in male children and adults. EoE is characterized clinically by symptoms related to esophageal dysfunction and histologically by eosinophil-predominant inflammation (at least 15 eosinophils per high power field). Three pathologic sub-types vary from mild expression to fibrostenotic disease. Clinical manifestations include solid food

dysphagia, food impaction, antacid-refractory central chest pain, upper abdominal pain, and GERD-like symptoms.
    - Disease severity, defined by the Index of Severity of Eosinophilic Esophagitis (I-SEE; mild [1 to 6 points], moderate [7 to 14 points] or severe [15 points or higher]) is determined by presentation and associated complications (symptom frequency, food impaction, hospitalization), endoscopic features (edema, furrows, exudates, rings, strictures), and histologic burden of eosinophils per high power field.
    - There is a strong association of eosinophilic esophagitis with allergic conditions such as food allergies, environmental allergies, asthma, and atopic dermatitis. Only recently, however, has targeted EoE treatment been FDA-indicated. Of note, symptoms may not always correlate with histological activity.
- Eosinophilic Gastrointestinal Disorders (EGIDs) other than EoE (eosinophilic esophagitis)
    - Non-EoE Eosinophilic gastrointestinal disorders (EGIDs) included eosinophilic gastritis (EoG), eosinophilic enteritis (EoN), and eosinophilic colitis (EoC). They are characterized by pathologic eosinophilic infiltration of the stomach, small intestine, or colon leading to organ dysfunction and clinical symptoms.
    - The initial laboratory evaluation is similar between EGID and other GI diseases. Peripheral eosinophilia, iron deficiency, or hypoalbuminemia should raise clinical suspicion of EGID.
- More than a third of those with esophageal symptoms associated with esophageal eosinophilia will respond to PPI treatment. Notable is a condition called PPI-REE where clinical and histologic findings present similar to EoE but complete remission is achieved with PPI use.

Evidence Discussion

Upper endoscopy allows direct visualization of the esophagus, providing an opportunity to identify characteristic endoscopic features of EoE such as edema, furrows, rings, exudates, and strictures. Biopsy specimens obtained during EGD allow for histological assessment, confirming the presence of eosinophil-predominant inflammation, a hallmark of EoE. EGD also enables monitoring of treatment response over time by assessing changes in endoscopic features and histological findings. This can guide treatment decisions, including the initiation of pharmacological or dietary therapy, and the need for endoscopic interventions such as dilation of strictures.

The risks of using EGD in the evaluation of EoE include EGD risks in general, namely that it is an invasive procedure that requires sedation or anesthesia, posing inherent risks associated with anesthesia administration, including respiratory depression and allergic reactions. There is also the risk of complications such as perforation, bleeding, and aspiration. EGD is resource-intensive, requiring specialized equipment,

trained personnel, and facility infrastructure, which may limit accessibility and increase healthcare costs.

While upper endoscopy plays a crucial role in the diagnosis and management of EoE, its use should be balanced against the potential risks and benefits. Close monitoring of patient safety, appropriate patient selection, and adherence to established guidelines are essential to ensure optimal outcomes in this patient population. When used appropriately, it can help guide diagnosis, treatment and management of EoE.

Celiac Disease (EGD-1.18)

GI.CE.0001.18.A
v1.0.2025

Screening for Celiac Disease

- EGD is medically necessary for individuals with positive serologies as follows:
  - Individuals with elevated TTG IgA in the setting of normal total IgA level OR
  - Individuals with IgA deficiency and a positive TTG IgG or deamidated IgG
    - Elevated TTG IgG, deamidated gliadin IgG should not be considered positive screens in individuals with normal total IgA levels
    - HLA test results does not preclude the need for celiac serology
    - See: **Background and Supporting Information** for discussion of additional related screening serologies (e.g., gliadin antibodies)
  - Individuals with positive endomysial IgA antibody
- EGD is medically necessary for individuals with negative serologies but high index of suspicion for Celiac disease based on symptoms (see: **Background and Supporting Information** for common symptoms) AND at least one of the following risk factors:
  - Diagnosis of one of the following associated conditions:
    - autoimmune thyroid disease
    - autoimmune liver disease
    - primary biliary cirrhosis
    - type 1 DM
    - Addison's disease
    - dermatitis herpetiformis
    - idiopathic peripheral neuropathy
    - Sjögren's syndrome
    - juvenile idiopathic arthritis
    - idiopathic dilated cardiomyopathy
  - First-degree relative with celiac disease
  - Down syndrome
  - Turner syndrome
  - Williams syndrome

Individuals on a Gluten-Free Diet

- EGD is medically necessary in the following scenarios:
  - Seroconversion with gluten challenge OR

- Individual develops significant symptoms after at least two weeks on gluten-containing diet and ALL of the following:
  - Serologies remain negative after at least two weeks on gluten-containing diet AND
  - Individual has a permissive HLA/haplotype

Known Celiac Disease

- EGD is medically necessary in known celiac disease in the following scenarios:
  - Inadequate biopsies on initial scope
    - One-time repeat EGD to obtain appropriate number of small bowel biopsies
  - EGD with small bowel biopsy can be repeated two years after starting a gluten-free diet to assess for mucosal healing regardless of symptoms
  - EGD with small bowel biopsy in individuals with persistent symptoms despite at least 6 months of compliance with gluten-free diet
- For assessment of diarrhea in conditions other than celiac disease, see: **General and Therapeutic EGD (EGD-1.7)**

Background and Supporting Information

- Celiac disease is an immune-mediated systemic disorder elicited by gluten in genetically susceptible individuals. The spectrum of symptoms is quite heterogeneous and can manifest at any age after gluten is introduced into the diet. This may include a variable combination of intestinal and extra-intestinal symptoms, and can overlap with functional GI conditions such as irritable bowel syndrome or Non-celiac gluten sensitivity (NCGS). In the latter, symptoms typically occur soon after ingestion of gluten-containing foods and disappear with a strict gluten-free diet. However, there are no antibodies nor enteropathy present as in celiac disease.
- Common symptoms can include abdominal pain, bloating, nausea, diarrhea, constipation, reflux, fatigue, headache, joint pains, and muscle aches. Surveys estimate the prevalence of NCGS to be anywhere from 0.6-6% of the US population.
- Another important distinction should be made between celiac disease and wheat allergy. Signs and symptoms of wheat allergy can include swelling of the mouth, itching, and hives. This is more common in individuals who also have other atopic conditions.
- Additional screening tests/serologies:
  - Permissive genetics/HLA alone should not be used as sole rationale for proceeding with EGD
  - Isolated elevation in deamidated gliadin IgA levels should never be used as sole criteria for positive screen
- Initial EGD should obtain at least 4 biopsies from distal duodenum and 1 from bulb

- Chronic abdominal pain or diarrhea (> 30 days) as their only symptoms, and no evidence of elevated biomarkers associated with celiac disease, is not an indication for EGD

Evidence Discussion

The diagnosis of celiac disease (CD) incorporates both serologic and histologic data. Serologic testing consists of measuring tissue transglutaminase (TTG) IgA while on a gluten-containing diet with concomitant or prior measurement of total IgA levels to ensure that the individual is not IgA deficient. Individuals with an elevated TTG IgA should then undergo an esophagogastroduodenoscopy (EGD) with duodenal biopsy to confirm the diagnosis. Due to the fact the TTG IgA in individuals without IgA deficiency has a high negative predictive value when the pretest probability is low moderate, CD can be considered as adequately ruled out in this scenario without undergoing an EGD.

The specificity of the TTG IgA ranges between 96-100% with sensitivity variable between 63-93%. Therefore, in individuals who carry a >5% chance of having celiac disease, EGD with duodenal biopsy should be considered even with a negative serology. This includes certain genetic and autoimmune conditions as well as first-degree relatives of individuals with CD. This is based on the sensitivity of TTG IgA serology, risk of verification bias on studies assessing celiac testing, the possibility of seronegative celiac disease, and differential diagnosis with other enteropathies. If an individual is IgA deficient, then IgG serology with either deamidated gliadin peptide (DGP) and/or TTG should be measured.

Genetic testing is not required for diagnosis in all cases, but in select circumstances can be helpful, such as in the context of serologic-histologic discrepancy and in individuals who have already started a gluten-free diet. If negative, celiac disease can be considered as effectively ruled out.

Since histologic abnormalities in celiac disease can be patchy, at least four biopsies should be obtained in the post-bulbar duodenum and at least 1-2 from the duodenal bulb. This results in approximately 96% sensitivity in diagnosing celiac disease.

A gluten-free diet (GFD) is the only effective therapy for CD, and intestinal biopsies are the only way to document mucosal healing of the intestine. This takes time after starting a GFD, and does not always correlate with either serologies nor symptoms. Given that the lack of mucosal healing can be associated with increased risk of lymphoproliferative malignancy, bone disease, and refractory celiac disease (RCD). In the United States, a study demonstrated that the median time from implementing a GFD to achieving mucosal healing was three years; as such, a follow-up biopsy after two years of GFD to assess for mucosal healing appears reasonable.

Inflammatory Bowel Disease (IBD) (EGD-1.19)

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EGD is medically necessary in the initial evaluation of individuals with suspected upper GI tract inflammatory bowel disease (IBD) in the following clinical scenarios:

- Clinical features suggestive of Crohn's disease (i.e. chronic diarrhea, upper abdominal symptoms/dyspepsia, unintentional weight loss) AND one of the following:
  - Elevated biomarkers (ESR, CRP, fecal calprotectin, or lactoferrin) OR
  - Cross-sectional or imaging studies (CT abdomen, CT abdomen/pelvis, or MRI abdomen) are suspicious for Crohn's disease.

EGD is medically necessary for individuals with inflammatory bowel disease (IBD) in the following clinical scenarios:

- Active upper GI tract Crohn's disease: For assessment of disease activity and/or treatment decisions, including assessment for mucosal healing on therapy
- Individuals with Crohn's disease with new upper GI tract symptoms (e.g. epigastric pain, nausea/vomiting).
- Suspected upper GI/small bowel recurrence after resection
- Immunocompromised individuals with upper GI symptoms (esophageal infection-candida, CMV, HSV)
- Individuals with indeterminate colitis with upper GI symptoms
- Prior to colectomy in individuals with ulcerative colitis
- Abnormal radiologic finding (e.g. small bowel thickening or fistula on imaging)
- Individuals who have undergone a colectomy with ileal pouch-anal anastomosis (IPAA) and are now suspected of having Crohn's disease of the pouch

Evidence Discussion

- The diagnosis of inflammatory bowel disease (IBD) is based on a combination of clinical presentation (abdominal pain, diarrhea, weight loss, fatigue) and endoscopic, radiologic, histologic, and pathologic findings. The initial evaluation of suspected inflammatory bowel disease (IBD) includes a thorough laboratory workup to assess inflammation, anemia, and malnutrition. This evaluation is complemented by stool tests to rule out infections and to further evaluate inflammation. These non-invasive tests should be performed prior to proceeding with invasive diagnostic procedure, such as endoscopy, to confirm the diagnosis.

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- Upper GI tract involvement involving the esophagus, stomach and duodenum, occurs in up to 16% of patients with Crohn's disease, irrespective of upper GI symptoms. Dysphagia, odynophagia, pyrosis, nausea, epigastric pain, dyspepsia, anorexia, weight loss and vomiting are the more frequently reported upper GI symptoms in individuals with inflammatory bowel disease (IBD). Upper endoscopy is a valuable diagnostic tool in the initial evaluation of inflammatory bowel disease (IBD), particularly when there are indications of upper GI tract involvement or when differentiating between various GI conditions. Upper endoscopy with biopsies should be performed in individuals with Crohn's disease, to evaluate disease activity and response to therapy. EGD is indicated for individuals with symptomatic indeterminate colitis.
- In individuals with ulcerative colitis, an EGD is indicated if there are abnormal radiologic findings that raise concern for Crohn's disease. Upper endoscopy is indicated in individuals with ulcerative colitis, if there is a suspicion of a change in diagnosis to Crohn's disease. EGD can be approved in a subset of individuals with ulcerative colitis who have undergone total proctocolectomy with IPAA, and are now suspected of having Crohn's disease of the pouch. This enables the evaluation of the upper GI tract for Crohn's involvement, which can impact management and therapeutic decisions.

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Guideline Page

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