



CLINICAL GUIDELINES

Esophagogastroduodenoscopy (EGD)

Version 1.0.2022

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eviCore healthcare Clinical Decision Support Tool Diagnostic Strategies: This tool addresses common symptoms and symptom complexes. Imaging requests for individuals with atypical symptoms or clinical presentations that are not specifically addressed will require physician review. Consultation with the referring physician, specialist and/or individual's Primary Care Physician (PCP) may provide additional insight.

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Esophagogastroduodenoscopy (EGD)

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EGD-0: General Guidelines

- eviCore's Gastrointestinal Endoscopy Program applies an evidence-based approach to evaluate the most appropriate care for each patient. 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 patient's current clinical status, then the medical necessity for the request cannot be established and the request cannot be approved.
- Specific elements of a patient's medical records commonly required to establish medical necessity include, but are not limited to:
 - ◆ Recent virtual or in-person clinical evaluation which includes a detailed history and physical examination
 - ◆ Laboratory studies
 - ◆ Imaging studies
 - ◆ Pathology reports
 - ◆ Procedure reports
 - ◆ Reports from other providers participating in treatment of the relevant condition
- Adequate clinical information must be submitted to eviCore in order to establish medical necessity for gastrointestinal endoscopy services. Pertinent clinical evaluation (within 60 days) including a recent detailed history, physical examination, and/or laboratory and prior imaging studies should be performed prior to considering endoscopy. Other meaningful contact (telehealth visit, telephone or video call, electronic mail or messaging) by an established patient can substitute for an in-person clinical evaluation.
- eviCore reserves the right to change and update the Gastrointestinal Endoscopy Policy. The Policy undergo a formal review at least annually. eviCore's policy is 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 policy is not intended to supersede or replace sound medical judgment, but instead, should facilitate the identification of the most appropriate treatment given the patient's clinical condition. This policy is written to cover most gastrointestinal endoscopic indications. However, the policy may not be applicable in certain clinical circumstances. Physician judgment may override the policy. Clinical decisions, including treatment decisions, are the responsibility of the patient and his/her provider. Clinicians are expected to use independent medical judgment, which takes into account the clinical circumstances to determine patient management decisions.
- All time intervals in this guideline refer to upper endoscopy, unless otherwise stated.
- These guidelines are for initial procedures, unless otherwise stated.
- Requests for Open-Access Endoscopy must meet criteria according these Guidelines.

- The terms “male” and “female” used in these guidelines refer to anatomic-specific diseases and disease predispositions associated with individuals’ sex assigned at birth rather than their gender identity. It should be noted that gender identity and anatomic specific diseases as well as disease predispositions are not always linked. As such, these guidelines should be applied to the individual’s corresponding known or suspected anatomic-specific disease or disease predisposition. At eviCore, we believe that it is important to understand how all individuals, including those who are gender diverse, choose to identify themselves. To ensure that gender-diverse individuals are treated with respect and that decisions impacting their healthcare are made correctly and with sensitivity, eviCore recognizes all individuals with the following gender marker options: Male, Female, Transgender male, Transgender female, “X”, and “Not specified”.
- State and federal legislations may need to be considered in the review of gastrointestinal endoscopy requests.
- eviCore supports the Choosing Wisely initiative (www.choosingwisely.org) by the American Board of Internal Medicine (ABIM) Foundation and many national physician organizations, to reduce the overuse of diagnostic tests that are low value, no value, or whose risks are greater than the benefits.
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EGD-1.1: Dyspepsia/Upper Abdominal Symptoms

- New-onset symptoms in individuals ≥ 60 years of age.
- Individuals < 60 years of age without red flag symptoms
 - ◆ EGD if failure of an initial “test and treat” approach for *H. pylori* or a trial of empiric therapy for 4 weeks with a proton pump inhibitor (PPI)*
 - See Background and Supporting Information: Dyspepsia
- 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 UGI malignancies in a first-degree relative:
 - Esophageal
 - Gastric
 - Duodenal
 - ◆ Documentation of unintended weight loss $> 5\%$ within the past 6-12 months
 - ◆ Documentation of anorexia
 - ◆ GI bleeding presumed to be UGI in origin by one of the following:
 - History and/or physical examination (e.g., black stool, hematemesis)
 - Laboratory data (e.g., elevated BUN associated with GI blood loss, positive fecal occult blood)
 - ◆ 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
 - Elevated serum iron binding capacity
 - ◆ Documentation of dysphagia
 - ◆ Odynophagia characterized by chest pain on swallowing
 - ◆ Persistent vomiting ≥ 7 days
 - ◆ Abnormal imaging study suggesting organic disease in one of the following:
 - Esophagus
 - Stomach
 - Duodenum
 - See also **EDG-2: Non-indications**
 - ◆ Clinical suspicion of malignancy as evidenced by:
 - 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 should generally undergo cross-sectional imaging prior to EGD.
 - ◆ E.g., pain radiating to the back, elevated liver enzymes, jaundice, etc.).

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

- ANY of the following symptoms suggestive of complicated reflux disease:
 - ◆ Documentation of dysphagia
 - ◆ Odynophagia characterized by chest pain on swallowing
 - ◆ Documentation of unintentional weight loss > 5% within the past 6-12 months
 - ◆ Hematemesis
 - ◆ GI bleeding or presumed to be UGI in origin by one of the following:
 - History and/or physical examination (e.g., black stool, hematemesis)
 - Laboratory data (e.g., elevated BUN associated with GI blood loss, positive fecal occult blood)
 - ◆ 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
 - Elevated serum iron binding capacity
 - ◆ Multiple risk factors for Barrett's esophagus (see section **EGD-1.3: Barrett's esophagus**)
 - ◆ Failure to respond to appropriate anti-secretory medical therapy
 - Physician-directed AND
 - At least one PPI* daily for a period of 8 weeks OR
 - Twice daily PPI* for a period of 4 weeks
 - ◆ Finding of an UGI mass, stricture, or ulcer on imaging studies (CT, MRI, US)
 - See also **EGD-2: Non-Indications for EGD, duodenal ulcer**
 - ◆ Persistent vomiting (≥ 7 days)
 - ◆ Evaluation of individuals who are PPI-dependent* and being considered for endoscopic or surgical anti-reflux procedures (e.g., Nissen fundoplication)
 - ◆ Evaluation of individuals with recurrent symptoms after endoscopic or surgical anti-reflux procedures
 - ◆ Placement of wireless pH monitoring
 - ◆ 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
 - ◆ Non-cardiac chest pain (cardiac etiology has been ruled out – see: **Background and Supporting Information: GERD**), after a 4 week trial of twice daily PPI* therapy
 - An appropriate cardiac workup should include:
 - Recent (within 60 days) ECG, Chest x-ray or ECHO/US, and appropriate laboratory studies after symptoms started or worsened OR
 - Referral from cardiologist for GI workup.
 - ◆ Evaluation of extra-esophageal symptoms of GERD (including cough, asthma, or laryngitis):
 - If accompanied by typical GERD symptoms (heartburn or regurgitation), then follow **EGD-1.2: GERD** OR
 - If not accompanied by typical GERD symptoms, EGD after failure of appropriate therapy of non-GERD symptoms (as defined above) AND appropriate ENT, pulmonary, or allergy evaluation fails to find cause of symptoms.

EGD-1.3: Barrett's Esophagus

- Screening for Barrett's Esophagus
 - ◆ Individuals with a first-degree relative with Barrett's esophagus or esophageal adenocarcinoma
 - ◆ Individual with chronic GERD symptoms (>5 years, and/or frequent (weekly or more) symptoms, AND at least 3 of the following risk factors:
 - Age ≥ 50 years
 - Caucasian race
 - Male sex
 - Central adiposity:
 - Males – waist > 102 cm. or 40 in., or waist-hip ratio of > 0.9
 - Females – waist > 88 cm or 34.5 in., or waist-hip ratio of > 0.8
 - History of smoking
 - ◆ 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
 - See **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 indicated.
- Surveillance for Barrett's Esophagus
 - ◆ 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.
 - ◆ If no dysplasia on initial screening EGD:
 - Repeat examinations in 3-5 year intervals
 - See **Background and Supporting Information: Barrett's Esophagus**
 - ◆ If pathology is indefinite for dysplasia:
 - Repeat EGD in 3-6 months
 - ◆ If indefinite dysplasia persists:
 - Repeat EGD every 12 months
 - ◆ If pathology shows low-grade dysplasia:
 - Repeat endoscopy in 8-12 weeks under maximum acid suppression (PPI twice daily*)
 - If LGD persists, and endoscopic surveillance is chosen rather than eradication therapy, surveillance EGD can be performed every 6 months times two, then annually, unless there is reversion to nondysplastic Barrett's
 - ◆ If pathology shows high-grade dysplasia:
 - Endoscopic therapy
 - NOTE: Active therapy with the intention of endoscopic ablation is at the discretion of the endoscopist

- Post-Ablative Therapy for Barrett's Esophagus (following complete eradication of Barrett's epithelium, defined as 2 consecutive negative EGD's)
 - ◆ If treated for high-grade dysplasia or intramucosal adenocarcinoma:
 - EGD every 3 months for 1 year, then every 6 months for 1 year, then annually
 - ◆ If treated for low-grade dysplasia:
 - If complete eradication is achieved, an initial post-eradication EGD can be performed at 3-6 months. Surveillance by EGD is then continued every year for 2 years, and then every 3 years thereafter
 - If complete eradication is not achieved, then surveillance EGD is every 6 months for 1 year after the last endoscopy, then annually for 2 years, then every 3 years thereafter
 - ◆ If recurrence of metaplasia or dysplasia is discovered:
 - Refer to pre-treatment guidelines

EGD-1.4: Gastric Ulcer

- Surveillance EGD is indicated 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)
 - ◆ 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
 - ◆ In individuals with gastric ulcer who did not undergo biopsy at the index endoscopy for any reason (e.g., active bleeding, coagulopathy, etc.)
 - ◆ In individuals diagnosed with gastric ulcer via radiologic imaging
 - ◆ In individuals with giant ulcers (> 3cm) to document healing
 - ◆ In individuals with refractory ulcers (fail to heal despite 8-12 weeks in therapy). Surveillance EGD can be continued until healing is documented.
 - See **Background and Supporting Information: Gastric Ulcer**

EGD-1.5: Duodenal Ulcer

- Surveillance EGD can be considered 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) to document healing
 - ◆ Refractory ulcers: Surveillance EGD until healing is documented
 - See **Background and Supporting Information: Duodenal Ulcer**

EGD-1.6: Gastric Intestinal Metaplasia (GIM)

- 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 at one year for risk stratification
 - For high-risk individuals (Hispanic, 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)
 - High-risk individuals as indicated above
 - 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)

EGD-1.7: General Indications

- 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 stool, hematemesis)
 - ◆ Laboratory data (e.g., elevated BUN associated with GI blood loss, positive fecal occult blood)
- 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
 - ◆ Elevated serum iron binding capacity
- 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 hydroxide, 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.
- Persons with cirrhosis/portal hypertension to assess or treat esophageal varices
- To assess diarrhea in individuals suspected of having small bowel disease (e.g., celiac)
 - ◆ EGD with small bowel biopsy indicated in individuals with chronic diarrhea or suspected malabsorption after inconclusive evaluation including colonoscopy with biopsy, or in individuals with positive celiac serology
 - EXCEPTION: HIV and Graft-vs.-Host Disease: in the absence of a diagnosis on flexible sigmoidoscopy, an EGD can be performed
 - ◆ EGD with small bowel biopsy can be repeated in 2 years to assess for mucosal healing in celiac disease, or with recurrent symptoms despite 6 months of a gluten-free diet
- Removal of foreign bodies
- Removal or endoscopic treatment of known lesions
 - ◆ Known polyp(s) which have not yet been removed
 - ◆ Bleeding lesions (such as known AVM, ulcers, or tumors requiring ablation, cautery, or other treatment)
 - ◆ For conditions in which specific guidelines exist, such as Barrett's esophagus, follow the appropriate guideline for that condition.
- Placement of a feeding or drainage tube
 - ◆ Examples include: Peroral, percutaneous endoscopic gastrostomy, percutaneous endoscopic jejunostomy
- Dilation, stenting, and other therapeutic interventions for 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 **EGD-1.1 Dyspepsia** and **EGD-1.2 GERD** for initial EGD indications
 - ◆ Follow-up EGD is indicated for:
 - Assessment of response to initial or changed therapy for individuals with an established diagnosis of eosinophilic esophagitis, evidenced by:
 - Prior endoscopic findings of a peak value of ≥ 15 eosinophils per high power field
- 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
 - See **EGD-2: Non-indications** for exceptions
- For sampling of tissue or fluid when clinically appropriate
- Examples include: biopsy of small bowel for suspected celiac disease when appropriate, collection of gastric or duodenal fluid for analysis.
 - ◆ For specific indications (Like Barrett's esophagus, diarrhea, etc.) for which guidelines exist, follow the specific guideline for that condition.
- 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, weight loss, abdominal distention, and early satiety.
- Management of operative complications
 - ◆ Examples include: dilation of anastomotic strictures, stenting of anastomotic disruption, fistula, or leak

EGD-1.8: Gastric Polyp Treatment and Follow-up

- 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 **EGD-1.6: Gastric Intestinal Metaplasia**
 - Mucosal sampling detects gastric atrophy
 - Follow-up per OLGA stage. See: **EGD-1.9: Atrophic Gastritis**
- Hyperplastic polyps with dysplasia
 - ◆ Annual EGD if requested

EGD-1.9: Atrophic Gastritis

- 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

EGD-1.10: Pernicious anemia

- EGD should be performed 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 **EGD-1.9: Atrophic Gastritis**.

EGD-1.11: GIST (Gastrointestinal Stromal Tumors)

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

EGD-1.12: Gastric Neuroendocrine Neoplasms

- After resection, can be re-evaluated every 6-12 months for the first 3 years, then annually

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

- 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)

EGD-1.14: Bariatric Surgery

- 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 or to regain weight after an initial post-operative weight loss

EGD-1.15: Known Malignancies

- 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

EGD-1.16: Genetic Syndromes

- Lynch Syndrome
 - ◆ 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)
 - ◆ 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 3 years. If no polyps, repeat at age 18 years, then every 3 years, or earlier if any symptoms occur.
- Hereditary Gastric Cancer (Hereditary Diffuse Gastric Cancer-HDGC Syndrome)
 - ◆ EGD beginning 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)
 - ◆ 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:
 - Patient 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
- 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 4 years
I	≤ 4	Every 2-3 years
II	5-6	Every 1-3 years
III	7-8	Every 6-12 months
IV	9-12	Every 3-6 months (if surgery not chosen)

* Unless there is a documented history of allergy or intolerance to PPI use

EGD-2: Non-indications for EGD

- 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
 - Follow guidelines for **EGD-1.1 Dyspepsia** or **EGD-1.2 GERD**, depending on the predominant symptom
- Metastatic adenocarcinoma of unknown primary site when the results will not alter management
- 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
- Sequential or periodic EGD 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
- Endomicroscopy
 - ◆ At the current time, endomicroscopy is considered investigational and experimental

Background and Supporting Information

- Dyspepsia/Upper abdominal symptoms
 - ◆ 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
- 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 indicated
 - ◆ If initial examination shows BE but no dysplasia, follow-up endoscopy in one year is NOT indicated. Follow prescribed guidelines
- GERD
 - ◆ 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 indicated 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 recommended
 - ◆ 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)
- Gastric Ulcer
 - ◆ The rationale for surveillance has been that some individuals with endoscopically benign-appearing gastric ulcerations may eventually be shown to have gastric cancer. However, 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)
- Duodenal Ulcer
 - ◆ More than 90% of duodenal ulcers heal with 4 weeks of PPI therapy.

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