GI BOARD REVIEW

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  - Clinical interest: General gastroenterology
DISCLOSURES

• Muthoka Mutinga, MD- No disclosures
1. A 78-year-old man is referred for evaluation of dysphagia. He reports a choking sensation and cough especially when he tries to swallow liquids. He sometimes experiences nasal regurgitation of liquid. His symptoms have been ongoing for several months. He is a smoker, has longstanding hypertension and type II diabetes mellitus. He has not experienced frequent heartburn. Which of the following tests is likely to confirm his diagnosis?

A. Barium esophagram

B. Upper Endoscopy

C. Video swallow study

D. High resolution esophageal manometry
1. The answer is C

- Disorders that involved the coordinated swallowing process result in oropharyngeal dysphagia.
- Typical symptoms include difficulty initiating a swallow, coughing especially when ingesting liquids, abnormal phonation and nasal regurgitation of foods.
- A video swallow, also known as a modified barium study, is the test of choice to confirm this diagnosis.
- Esophageal dysphagia, characterized by symptoms that suggest impediment of food passage through the esophagus are best evaluated with a barium swallow x-ray or upper endoscopy procedure.
- Motility disorders of the esophagus typically cause difficulty swallowing both liquids and solids. A high-resolution manometry study is the test of choice for these disorders.
2. A 24-year-old man with a recent episode of esophageal food impaction which resolved spontaneously is referred for upper endoscopy procedure for evaluation of these symptoms. Multiple linear furrows and small, whitish plaques are noted. Biopsies of the mid- and distal esophagus are suggestive of eosinophilic esophagitis with > 50 eosinophils per high power field noted in specimens from both sites. Which of the following symptoms is atypical for eosinophilic esophagitis (EoE)?

A. Heartburn

B. Non-cardiac chest pain

C. Esophageal dysphagia

D. Nausea
2. The answer is D

- Nausea, vomiting, abdominal pain, weight loss, diarrhea and gastrointestinal bleeding are atypical symptoms in patients with EoE and an alternate diagnosis such as eosinophilic gastroenteritis should be considered.
- *Heartburn* is reported by 30-60% of adults with EoE.
- *Non-cardiac chest pain* is reported by 8-44% of adults with EoE.
- *Esophageal dysphagia* is the most common symptoms associated with EoE and is reported by 60-100% of adults with this condition.
3. A 41-year-old man recently diagnosed with acute uncomplicated sigmoid diverticulitis confirmed with CT scan imaging is referred to a gastroenterologist for further management. He reports no preceding or current symptoms of constipation, diarrhea or rectal bleeding. There is no family history of colon cancer or polyps. He smokes ½ pack of cigarettes per day.
In addition to advising smoking cessation, what should be recommended next?

A. Fiber supplement

B. Avoid seeds and nuts

C. Schedule a colonoscopy

D. Colorectal surgery referral
3. The answer is C

- An interval colonoscopy should be performed to rule out occult colonic neoplasm
- Smoking is associated with increased risk of diverticulitis, and smoking cessation should be recommended to reduce risk and for many other health benefits
- Consumption of seeds and nuts have not been shown to increase the risk of diverticulitis, contrary to popular belief
- Although a high dietary fiber intake (>23gm/day) may be associated with a lower risk of diverticulitis, excluding an occult malignancy is far more important
- Colorectal surgery referral is not indicated after one episode of uncomplicated diverticulitis
4. An 81-year-old with atrial fibrillation on apixaban undergoes cardiac catheterization for evaluation of persistent chest pain with electrocardiographic changes. Percutaneous coronary artery intervention with placement of a drug-eluting stent is required. Aspirin and clopidogrel are initiated. He has no history of gastrointestinal bleeding.
Which of the following antithrombotic regimens would you recommend for the patient upon discharge from the hospital?

A. Continue apixaban long term, but discontinue aspirin and clopidogrel in 1 month

B. Continue apixaban long term, but discontinue aspirin and clopidogrel after one year

C. Continue apixaban, aspirin and clopidogrel long term

D. Continue apixaban long term but discontinue aspirin and clopidogrel on discharge
4. The answer is A

- Triple antithrombotic regimens (anticoagulant + aspirin + thienopyridine antiplatelet agent) should only be used for a very limited time in select patients at very high risk of ischemia

- Use of anticoagulants combined with antiplatelet agents results in not only increased short term (30 day) but also long term (6 months and 1 year) risk of bleeding compared to monotherapy

- Discontinuing aspirin and clopidogrel at discharge would be associated with an unacceptable risk of acute stent thrombosis
5. A 34-year-old woman with ulcerative colitis is noted to have moderate elevation of alkaline phosphatase, greater than 1.5 times the upper limit of normal. Further investigation suggests a hepatic etiology based on elevation of both 5’-nucleotidase and GGT. The anti-mitochondrial antibody test is negative. MRCP imaging is notable for areas of structuring and beading of the extrahepatic bile ducts without a dominant stricture and the findings are thought to be consistent with primary sclerosing cholangitis (PSC).
Which of the following statements regarding PSC is true?

A. It is more common in people with Crohn’s disease than with ulcerative colitis

B. It is associated with an increased risk of developing colon cancer

C. Pruritis is the most common presenting symptom

D. Recurrence does not occur after liver transplantation.
5. The answer is B

- PSC is an autoimmune cholestatic liver disease that is more common in men than women and more commonly associated with ulcerative colitis than Crohn’s disease.
- PSC is associated with an increased risk of colorectal cancer regardless of duration of disease, hence annual surveillance colonoscopy is recommended following diagnosis.
- Most people with PSC are asymptomatic at the time of diagnosis. Pruritis is more commonly seen with primary biliary cholangitis (PBC).
- PSC, like other autoimmune disorders, can recur after liver transplantation.
6. A 48-year-old woman sarcoid liver disease and moderate to severe pulmonary hypertension is found to have large esophageal varices on upper endoscopy but has no history of gastrointestinal bleeding.
What is the appropriate therapy to prevent future variceal bleeding in this patient?

A. Transjugular intrahepatic portosystemic shunt (TIPS) procedure
B. Oral nitrate
C. Nonselective β-blocker
D. Endoscopic band ligation
E. Proton pump inhibitor
6. The answer is D.

- **Variceal band ligation** has shown initial promise in patients with large varices and may be considered in patients with contraindications for nonselective β-blocker therapy, such as this patient with moderate to severe pulmonary hypertension.

- **TIPS procedure** is very effective in lowering portal pressure, but when used for primary prophylaxis of variceal hemorrhage, it offers no mortality benefit and may cause harm.

- **Oral nitrate monotherapy** for prophylaxis of variceal hemorrhage is associated with increased mortality and is therefore not recommended.

- Most patients with portal hypertension and large esophageal varices benefit from *pharmacological prophylaxis* with a non-selective β-blockers such as propranolol, nadolol and timolol.

- **Acid inhibition therapy** have no role for prophylaxis of variceal hemorrhage.
7. A 34-year-old man with a long history of alcoholism is brought to the emergency department by a concerned family member who noticed that he was jaundiced and had decreased appetite for two days. He doesn’t take any prescribed or supplemental medication. In the emergency department and during hospitalization, extensive work-up of liver biochemical abnormalities was ultimately suggestive of alcoholic hepatitis.
Which of the following statements regarding acute alcoholic hepatitis is true?

A. Corticosteroids improve long term survival in patient with severe alcoholic hepatitis

B. Alcohol rehabilitation following hospitalization decreases long term mortality

C. Alcoholic hepatitis is associated with a low in-hospital mortality

D. Alcoholic hepatitis is associated with a low risk of alcohol relapse
7. The answer is B

- Alcohol rehabilitation after hospitalization for acute alcoholic hepatitis has been shown to not only decrease 30-day alcohol relapse, but also 30-day readmission and long-term mortality.
- Corticosteroids decrease short term mortality in patients with a discriminant function $\geq 32$, but have no impact on long term mortality.
- In hospital mortality associated with alcoholic hepatitis may be as high as 46% in the US.
- Alcohol relapse rates in patients previously hospitalized with alcoholic hepatitis has been reported to be as high as 25% at 1-year follow-up and 60% at 5-year follow-up.
8. A 53-year-old man is diagnosed with celiac disease after undergoing evaluation of symptoms which included intermittent bloating and irregular bowel habits. He has complete resolution of symptoms after adhering to a gluten free diet for two months. Labs obtained several years later during a follow-up visit are notable for thrombocytosis (platelet count 634,000/μL; normal: 150,000-400,000/μL). He is not anemic; his iron indices and CRP are normal, and he has no signs of ongoing infection or inflammation. Additional evaluation is pursued, and a diagnosis is made.
Which of the following interventions should be considered for further management of this patient?

A. Bone marrow biopsy
B. Pneumococcal vaccine
C. Intravenous iron infusion
D. Hydroxyurea
E. Phlebotomy
8. The answer is B

- This patient has anatomic or functional hyposplenism, which can occur in people with celiac disease. This can be confirmed by evaluating Howell-Jolly bodies on a peripheral blood smear.
- Patients with functional or anatomic hyposplenism are at increased risk of infection with encapsulated bacteria such as *Pneumococcus* and should receive appropriate vaccinations.
- Patients with celiac disease are at risk for small intestinal lymphoma, but a bone marrow biopsy is not helpful in making this diagnosis.
- Intravenous iron administration in the absence of iron deficiency is not indicated.
- This patient is unlikely to have a concurrent myeloproliferative disorder and does not have severe thrombocytosis. Hence treatment with hydroxyurea is not indicated.
- Phlebotomy is used to treat iron overload not thrombocytosis.
9. A 35-year-old woman is evaluated for fatigue. She has not experienced insomnia, excessive daytime somnolence or menorrhagia and her BMI is normal. She does not consume alcohol. A depression screening questionnaire is negative. Her physical exam is normal. Lab test results are as follows:

- TSH: 1.50 mU/L (normal: 0.4-4.0 mU/L)
- Hct 42% (normal: 36-46%)
- ALT, AST, ALK, total bilirubin- all normal
- Serum iron: 180 μg/dL (normal: 60-170μg/dL)
- Total iron binding capacity: 230 μg/dL (normal: 240-450 μg/dL)
- Serum ferritin: 195 ng/mL (normal: 25-240 ng/mL)
- Transferrin saturation: 78%
What test would you order next to aid in the diagnosis?

A. Percutaneous liver biopsy  
B. Sleep study  
C. Glucose tolerance testing  
D. HFE gene test  
E. Echocardiogram
9. The answer is D.

- The HFE gene test to evaluate for the two most common mutations associated with hereditary hemochromatosis (C282Y & H63D) should be ordered next.
- A transferrin saturation >55% is suggestive of an iron overload syndrome.
- The ferritin level is usually elevated in patient with hemochromatosis, except in menstruating women.
- Although diabetes can occur due to damage of pancreatic β (islet) cells by excess iron, it is a late manifestation, an unlikely to occur in someone without evidence of even hepatic injury.
- Atrial arrhythmias may occur early in the disease course, whereas dilated cardiomyopathy is a later cardiac manifestation.
10. A 42-year-old with a prior history of hypertension, severe sleep apnea and morbid obesity who underwent a Roux-Y gastric bypass 4 years ago is referred for evaluation of symptoms of excessive intestinal gas, bloating and loose stools. The symptoms have been ongoing for several months. He doesn’t consume dairy products, carbonated beverages or artificial sweeteners. He hasn’t taken any antibiotics recently and is not taking any new medications. His weight has been stable. Labs for celiac disease as well as CBC with differential, albumin, TSH, CRP, fecal calprotectin and stool tests for C. difficile, bacterial pathogens and parasites are normal.
What would you recommend next to establish his diagnosis?

A. Colonoscopy with biopsies
B. Magnetic resonance enterography (MRE)
C. Fecal elastase test
D. Breath test to evaluate for small intestinal bacterial overgrowth
E. Gastric emptying test
10. The answer is D

- Small intestinal bacterial overgrowth (SIBO) commonly develops in people who have undergone a Roux-Y gastric bypass operation and can be diagnosed with a breath test.
- The normal fecal calprotectin and CRP make inflammatory disorders of the small and large intestine less likely, hence a MR enterography and colonoscopy are likely to be of low diagnostic yield.
- Similarly, the absence of weight loss and absence of prior history of pancreatic disease make exocrine pancreatic insufficiency unlikely, hence a fecal elastase would be of low diagnostic yield.
- His symptoms are not typical of gastroparesis and the Roux-Y gastric bypass enhances gastric emptying.
11. A 24-year-old woman whose medical history is only notable for moderate to severe acne, presents for evaluation of worsening and persistent moderate to severe retrosternal pain for the past two days. She has had no similar symptoms in the past and does not use illicit drugs. She has no personal or family history of cardiovascular disease.
Which of the following is her likely diagnosis?

A. Dissecting aortic aneurysm

B. Esophageal spasms

C. Pill esophagitis

D. Reflux esophagitis
11. The answer is C

- Persistent retrosternal pain in a patient who may be taking doxycycline for moderate to severe acne is highly suggestive of pill induced esophagitis.

- Other symptoms associated with pill esophagitis include heartburn, odynophagia, dysphagia.

- A discrete esophageal ulcer with normal surrounding mucosa is typically seen endoscopically.
12. A 62-year-old man with recently diagnosed compensated cirrhosis due to nonalcoholic steatohepatitis (NASH) is advised to discontinue statin therapy by his primary care provider due to concerns about possible hepatotoxicity. He is obese, has hypertension and dyslipidemia, but does not have diabetes mellitus or coronary heart disease.
Which of the following is believed to be true concerning the effects of statin therapy in patient with chronic liver disease?

A. Statins may decrease overall survival
B. Statins may increase the risk of hepatic decompensation
C. Statins may decrease the risk of developing hepatocellular carcinoma
D. Statins may retard the progression and/or development of cirrhosis
12. The answer is D

- Recent data shows no evidence that statins are deleterious in patients with chronic liver disease including compensated cirrhosis.
- In fact, statins appear to retard the progression and/or development of cirrhosis, likely by inhibiting profibrotic cytokines.
- Statins appear to *improve* overall survival in patients with chronic liver disease and *decrease* the risk of hepatic decompensation.
- Statins are not known to have any direct effect on the development of hepatocellular carcinoma.
13. A 64-year-old woman with COPD presents for evaluation of recurrent diarrhea and mild diffuse abdominal pain. Three months ago, she was treated with oral metronidazole for 10 days for a *C. difficile* infection following antibiotics to treat acute bronchitis. A confirmed recurrence of *C. difficile* infection six weeks later was treated with oral vancomycin for 10 days. She now presents with watery diarrhea for the past two days. She has not received antibiotics since last undergoing treatment for *C. difficile*. Stool testing is again positive for *C. difficile* toxin. Her labs are normal except for a white blood count of 16,000 cells/mm³. She is afebrile, normotensive and not tachycardic. She is unwilling to consider a fecal microbiota transplantation in the future.
Which of the following would be the most appropriate treatment for this second recurrence of *C. difficile* infection?

A. Oral vancomycin for 14 days

B. Rifaximin for 14 days

C. Fidaxomicin for 10 days

D. Metronidazole for 14 days
• A second recurrence of *C. difficile* infection should be treated with Fidaxomicin 200mg orally BID for 10 days *or* a pulsed and/or tapering dose of oral vancomycin

• Fidaxomicin has the advantage of being associated with a lower risk of recurrence of *C. difficile* infection compared to currently available antimicrobial agents, but it is also very expensive

• In addition, fecal microbiota transplantation should be considered after treatment of a second recurrence of *C. difficile* infection

• Oral metronidazole (500mg TID for 10-14 days) or oral vancomycin (125mg QID for 10-14 days) are the preferred treatment for mild to moderate initial *C. difficile* infection and can be repeated for the first recurrence.
14. A screening colonoscopy on a 50-year-old man with no family history of colon cancer reveals two small, flat polyps in the ascending colon which are removed. The pathology report indicates that they are sessile serrated adenomas.
Which statement regarding serrated adenomas is true?

A. They are not associated with an increased risk of metachronous colon cancer
B. The prevalence of serrated polyps is very low (<1%)
C. They disproportionately contribute to interval colon cancers
D. They are easily detected on colonoscopic examination
14. The answer is C.

- **Serrated polyps are:**
  - Characterized histologically by serrated (saw-tooth) appearance of crypt epithelium
  - More easily missed on colonoscopic exam due to their flat morphology and ambiguous color, especially in the proximal colon

- A recent metanalysis of data published between 2009-2014 estimate that the **prevalence of serrated polyps ranged from 5.6-28.7%**

- Serrated polyps are associated with an increased risk of *metachronous cancer* and certain types are also associated with increased risk of *synchronous advanced neoplasia*

- They also disproportionately contribute to *interval colon cancers*
15. A 35-year-old with mild Crohn’s disease presents with symptoms of severe epigastric pain. He doesn’t drink alcohol. His only medication is oral mesalamine. Laboratory studies are notable for lipase of 2500 U/L (nl <60 U/L), total bilirubin 2.5mg/dL (nl: 0.2-1.2mg/dL), direct bilirubin 0.5 mg/dL, AST 17 U/L, ALT 25 U/L, alkaline phosphatase 72 U/L, creatinine 0.7mg/dL and hematocrit is 38% after hydration. He does not meet any systemic inflammatory response syndrome (SIRS) criteria.
Which of the following would be the most appropriate at this time?

A. ERCP

B. Abdominal ultrasound

C. MRCP

D. KUB
15. The answer is B.

- Patients with Crohn’s disease are at increased risk of developing gallstones.
- Since he has no definite cause for pancreatitis, an abdominal ultrasound to assess for gallstones is appropriate currently.
- Mesalamine infrequently causes acute pancreatitis.
- ERCP in patients with acute pancreatitis is only indicated in patients with suspected ascending cholangitis or high-grade biliary obstruction.
- The patient’s indirect hyperbilirubinemia is suggestive of Gilbert’s syndrome rather than an obstructive biliary process, hence MRCP is not indicated.
16. A 28-year-old man is found to have occult blood in the stool on routine digital rectal exam during a physical exam. He has no upper or lower gastrointestinal symptoms and does not take aspirin or NSAIDs. An abdominal CT scan obtained several years ago when he was diagnosed with appendicitis was also notable for a large hiatal hernia and colonic diverticulosis. There is no family history of gastrointestinal malignancy, and his hematocrit is normal.
Which of the following could potentially cause occult gastrointestinal blood loss?

A. Meckel’s diverticulum

B. Barrett’s esophagus

C. Colonic diverticulosis

D. Cameron lesions
16. The answer is D.

- Cameron lesions are erosions or ulcers that develop on the lower margin (gastric side) of a large hiatal hernia sac and may be associated with *acute and chronic blood loss* as well as iron deficiency anemia.
- A Meckel’s diverticulum is a congenital vestigial remnant of the omphalomesenteric duct, located in the ileum, usually within 2 feet of the ileocecal valve. Most are asymptomatic, but they can occasionally cause *overt bleeding*, rather than occult blood loss.
- Colonic diverticulosis are a common cause of *overt lower gastrointestinal hemorrhage*, but are associated with occult blood loss.
- Barrett’s esophagus, characterized by intestinal metaplasia of the esophagus, is a *non-inflammatory lesion* and is not associated with occult blood loss.
17. A 42-year-old woman with hypertension, type II diabetes mellitus, dyslipidemia and obesity is noted to have multiple small gallstones and a fatty liver on ultrasound imaging performed to evaluate transaminase elevation (ALT and AST <100 IU/L). The common bile duct measures 3mm and there is no intrahepatic ductal dilation. She reports no history of episodic, severe upper abdominal pain. She is very anxious about the possibility of developing symptoms or complications from the gallstones especially since she has diabetes mellitus. Laboratory evaluation to rule out other causes of transaminase elevation are normal.
What would you recommend for this patient?

A. Elective cholecystectomy

B. Ursodeoxycholic acid

C. Lithotripsy

D. No intervention
17. The answer is D

- The risk of gallstone related complications in a person with asymptomatic cholelithiasis is approximately 20% over 15 years of follow-up
- The risk of cholecystectomy outweighs the benefits, even in diabetic patients
- Hence no intervention should be pursued
18. A 44-year-old man with poorly controlled type II diabetes mellitus and morbid obesity presents to the Emergency Department for evaluation of severe acute epigastric pain radiating to his back for the past 3 hours. He is afebrile, heart rate is 92 beats/minute, BP 154/90 mm Hg with no orthostasis, respiratory rate of 24 breaths/min, and oxygen saturation is 98% on room air. His exam is notable for hypoactive bowel sounds and moderate epigastric tenderness with light palpation. His sclera are anicteric. He has no occult blood in his stool on digital rectal exam. No peripheral edema is noted.
**LABS:**
White blood count: 14,000 mm³ (nl: 4,500-11,000 mm³)
Hematocrit: 43%
ALT: 84 U/L (nl: 7-56 U/L)
AST: 55 U/L (nl: 0-40 U/L)
ALK: 99 IU/L
Total bilirubin: 0.4 mg/dL
Sodium: 126 mEq/L (nl: 135-145 mEq/L)
Glucose: 215 mg/dL
BUN: 12 mg/dL
Creatinine: 0.85 mg/dL
Amylase: 55 U/L (nl: 23-85 U/L)
Lipase: 4589 U/L (nl: 0-160 U/L).

An abdominal ultrasound is notable for increased echogenicity of the liver suggestive of fatty deposits, normal gallbladder without stones or sludge, common bile duct measures 3mm in diameter and there is no intrahepatic duct dilation. An abdominal/pelvic CT scan confirms interstitial pancreatitis with peripancreatic fat stranding and no necrosis. He does not consume alcohol.
What is the likely case of the acute pancreatitis?

A. Gallstones

B. Pancreatic mucinous neoplasm

C. Hypertriglyceridemia

D. Sphincter of Oddi dysfunction
18. The answer is C

- Hypertriglyceridemia is an important risk factor for acute pancreatitis when levels exceed 1000mg/dL

- Hypertriglyceridemia-induced acute pancreatitis is the third most common cause of acute pancreatitis after alcohol and gallstones

- Excess triglyceride in serum can displace water containing sodium and cause pseudo-hyponatremia, a clue in this case

- Serum triglyceride levels $>500\text{mg/dL}$ may interfere with colorimetric reading resulting in falsely normal amylase, another clue in this case. Lipase results are unaffected.

- Secondary causes of hypertriglyceridemia include poorly controlled diabetes mellitus, medications, pregnancy, alcohol and hypothyroidism.
19. A 23-year-old returning from travel outside of the United States is seen in urgent care with complaints of unilateral knee pain and swelling. She reports no trauma and is not sexually active. She had a self-limited diarrheal illness during her trip. She is well appearing, and lab tests are unrevealing.
Which one of the statements regarding reactive arthritis following an enteric infection is true?

A. Intestinal infection with ameba has been associated with this syndrome

B. Many affected people are HLA DQ2 and DQ8 antigen-positive

C. There is a high female to male ratio

D. It may be associated with a triad of arthritis, conjunctivitis and urethritis
19. The answer is D

- Post-enteric reactive arthritis, formerly known as Reiter’s syndrome, usually develops 2-4 weeks after an acute diarrheal illness.

- It is more common in men than women and many affected patients are HLA B27 antigen positive.

- It may be associated with a triad of arthritis, conjunctivitis and urethritis.

- *Shigella sp.* is the most associated enteric organism, although *Salmonella sp, Campylobacter jejuni, Yersinia enterococolitica* and even *Clostridium difficile* have been implicated.

- Amebic intestinal infections are not typically associated with reactive arthritis.
20. A 36-year-old woman is seen in the office for evaluation of a sensation of a lump in her throat ongoing for several months. She reports no dysphagia or odynophagia. Her head and neck exam is unremarkable.
Which one of the following is a common cause of a globus sensation?

A. Parathyroid adenoma
B. Gastroesophageal reflux disease
C. Depression
D. Myasthenia gravis
20. The answer is B.

- Globus refers to the sensation of a lump or foreign body in the throat in the absence of dysphagia and odynophagia.
- *Gastroesophageal reflux, goiter, early hypopharyngeal cancer* and *anxiety disorders* can all be associated with the globus sensation.
- Myasthenia gravis can result in oropharyngeal dysphagia, but not the globus sensation.
- Parathyroid adenomas are generally very small and unlikely to cause a globus sensation.
21. A 48-year-old man presents for annual physical. He reports a several month history of intermittent nausea and burning epigastric pain. He doesn’t take aspirin or NSAIDs. His weight has been stable, and he reports no dysphagia, odynophagia, melena, hematochezia or hematemesis. He exercises vigorously several times per week without limitations.
What would you recommend next?

A. Proton pump inhibitor (PPI) trial

B. Esophagogastroduodenoscopy (EGD)

C. *H. pylori* breath test or stool antigen

D. Abdominal/pelvic CT scan
21. The answer is C.

- Testing for *H. pylori* infection using a urea breath test or stool antigen test (“test and treat” strategy) is recommended for initial evaluation of uninvestigated dyspepsia in a person under 60 years of age with no alarm features, such as in this case.
- Alarm features that should prompt upper endoscopic evaluation include unintentional weight loss, dysphagia, odynophagia, unexplained iron deficiency anemia for example.
- A trial of a proton pump inhibitor for 4-8 weeks is recommended if *H. pylori* bacteria are not detected.
- Upper endoscopy as an initial evaluation of uninvestigated dyspepsia should be considered for people age 60 or older.
- Abdominal imaging similarly isn’t recommended without first evaluating for the presence of *H. pylori* bacterial infection
DISCLOSURES

• Muthoka Mutinga, MD – No disclosures
Selected References


