Case scenario:
Patient is a 26 YOM with no significant PMHx who presents to the ED for epigastric pain radiating to chest and back for the past month.

History elements:
- Pain began about one month ago and has gradually become more frequent
- Has had episodes like this in the past year
- Pain is described as an intermittent, burning sensation
- Symptoms are worse after eating and drinking alcohol
- Unable to specify if symptoms are worse after lying flat
- Rated 6/10
- Tried Tylenol without relief of symptoms
- Mild nausea but no vomiting, although pt states he sometimes tries to make himself throw up after he eats because he feels as if “something is stuck in my chest”
- Still able to tolerate PO
- Denies diarrhea or constipation
- Denies hematochezia or hematemesis
- Denies dysphagia or odynophagia
- Denies fever, chills, cough, SOB, or palpitations
- Denies urinary symptoms
- No recent weight loss
- No PMHx
- No PSHx
- Does not take any medications
- NKDA
- No significant family history
- Drinks alcohol 3-4x a week, about 10-15 beers each day
- Denies smoking or illicit drug use
- Endorses healthy diet

Physical exam:
Vitals: BP 142/81, Pulse 57, T 98.4 F, RR 18
General: AOx3, no acute distress
Cardiovascular: normal rate and rhythm; S1 and S2 heard; no murmurs, rubs, or gallops
Pulmonary: breath sounds equal bilaterally; pulmonary effort is normal; no crackles, rales, or wheezes
Abdomen: bowel sounds present; no epigastric or RUQ tenderness to palpation, no rebound or guarding, (-) murphy’s sign, no palpable masses, no hepatosplenomegaly
HEENT: oropharynx without erythema, no cervical lymphadenopathy

Differential diagnoses:
1. GERD is the most likely diagnosis because the pt describes intermittent burning epigastric pain radiating to the back/chest that is worse after eating and drinking alcohol. His sensation of “something stuck in my chest” after eating is also commonly associated with reflux. Although he is unsure whether symptoms worsen when lying flat, his history and benign abdominal exam are most consistent with GERD.
2. Peptic ulcer disease should be considered because it commonly presents with epigastric pain that may worsen after meals, particularly in gastric ulcers. Heavy alcohol use can contribute to gastric mucosal irritation and ulcer formation. However, the absence of GI bleeding, weight loss, NSAID use, or localized peritoneal signs makes PUD less likely than GERD.
3. Acute pancreatitis should be included because epigastric pain radiating to the back is a classic

presentation, and the pt's heavy alcohol consumption (10-15 beers about 3-4x a week) is a significant risk factor. However, the chronic, intermittent nature of his symptoms, lack of abdominal tenderness, lack of vomiting, his age, and overall well appearance make pancreatitis less likely.

4. Acute coronary syndrome, although unlikely in a healthy 26 year old, should always be considered in any patient presenting with chest or epigastric pain (must not miss diagnosis!) Epigastric discomfort can occasionally be an atypical presentation of myocardial ischemia. His young age, lack of cardiovascular risk factors, and stable vital signs make ACS less likely, but an EKG and troponin would still be appropriate to exclude this life-threatening diagnosis.

Labs/Tests:
CBC: within normal limits
CMP: within normal limits
Lipase: normal
Troponin: negative
EKG: normal sinus rhythm without ischemic changes
CXR: no acute cardiopulmonary abnormalities

Treatment:
- Pepcid 20 mg PO and Maalox 30 mL PO in the ED
- Discharge with Omeprazole 20 mg daily for 8 weeks

Patient counseling:
- Patient was educated on GERD, and that it occurs when stomach acid repeatedly flows back into the esophagus, causing irritation and heartburn
- Common dietary and lifestyle triggers were reviewed, such as fatty or spicy foods, chocolate, tomatoes, coffee and alcohol
    - Pt was advised to cut down his alcohol intake, eat smaller, more frequent meals, avoid eating within 2-3 hours of bedtime, and elevate the head of the bed while sleeping
- Stressed the importance of taking the PPI as directed, about 30-60 minutes before breakfast
- Pt was advised to come back to the ED for alarm symptoms, including difficulty swallowing, painful swallowing, vomiting blood, black stools, unintentional weight loss, or persistent chest pain
- Pt was advised to follow up with his PCP for possible GI referral for endoscopy if symptoms persist despite therapy
- Will ask pt if he has any questions, and will use the teach back method to ensure understanding