2015 Updates in Therapeutics:
The Pharmacotherapy Preparatory Course
Gastrointestinal Disorders
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Conflict of Interest Disclosures

Dr. Hemstreet has no conflicts to disclose.
Learning Objectives

1. Review and apply national guideline treatment strategies for the following gastrointestinal (GI) disorders: gastroesophageal reflux disease (GERD), peptic ulcer disease (PUD), ulcerative colitis, Crohn’s disease, viral hepatitis, chronic liver disease, upper GI bleeding, constipation, diarrhea, irritable bowel syndrome (IBS), nausea, vomiting, pancreatitis, prevention of stress related mucosal disease (SRMD).

2. Recommend appropriate pharmacologic and nonpharmacologic interventions for the treatment of GERD.

3. Differentiate between clinical signs, symptoms, risk factors, and treatment of both Helicobacter pylori and nonsteroidal anti-inflammatory drug (NSAID)-associated PUD.
Learning Objectives

4. Discuss the role of pharmacologic intervention in the treatment of nonvariceal upper GI bleeding.

5. Review the clinical differences in signs, symptoms, and treatment of Crohn’s disease and ulcerative colitis.

6. Identify the common manifestations of chronic liver disease and their treatment.

7. Review the treatment of both acute and chronic viral hepatitis.
8. Recognize pertinent information for educating patients and prescribers regarding the appropriate use of pharmacologic agents for various GI disorders.

9. Recommend appropriate pharmacologic and nonpharmacologic interventions for diarrhea and constipation.
Learning Objectives

10. Review recommendations for the treatment and prevention of nausea and vomiting

11. Discuss the clinical and treatment differences between acute and chronic pancreatitis.

12. Discuss the role of pharmacologic intervention in the treatment of IBS.
Patient Case # 1

- **HPI:** 55 year old man with 8-month history of GERD symptoms 4-5 days/week. Currently receiving lansoprazole 15 mg once daily by mouth. No ulcers or erosions via endoscopy.

- **PMH:** Hypothyroidism, GERD

- **MEDS:** Lansoprazole 15 mg once daily, levothyroxine 100 mcg daily.
Patient Case # 1

Which treatment approach is best for this patient?

A. Add metoclopramide 10 mg 4 times/day
B. Increase lansoprazole to 15 mg twice daily.
C. Switch to omeprazole 20 mg daily
D. Add sucralfate 1000mg 4 times/day
Treatment of GERD

- Targeted nonpharmacologic/Lifestyle modifications
- Antacids
- Acid suppression (as needed or scheduled)
  - Proton Pump Inhibitors
    - Esomeprazole strontium
  - Histamine-2 Receptor Antagonists
- Promotility Agents
- Surgical intervention
### GERD Guidelines 2013 Summary

<table>
<thead>
<tr>
<th>Area</th>
<th>Recommendation (Strength/Evidence)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagnosis</td>
<td>• Empiric therapy with a PPI is recommended if typical symptoms of heartburn or regurgitation (Strong/Mod)</td>
</tr>
<tr>
<td></td>
<td>• Screening for <em>H. pylori</em> is NOT recommended (Strong/Low)</td>
</tr>
<tr>
<td>NonPharm</td>
<td>• Weight loss if overweight or recent weight gain (Cond/Mod)</td>
</tr>
<tr>
<td></td>
<td>• Elevate head of bed/avoid meals 2-3 hours prior to bedtime if nocturnal symptoms (Cond/Low)</td>
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<tr>
<td></td>
<td>• Routine global elimination of food triggers NOT recommended (Cond/Low)</td>
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*Am J Gastroenterol* 2013; 108:308 – 328;
## GERD Guidelines 2013 Summary

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<tr>
<td>Treatment</td>
<td>• Erosive esophagitis = 8 week course of PPI; no major differences in products (Strong/High)</td>
</tr>
<tr>
<td></td>
<td>• Use maintenance PPIs if return of symptoms or complications (Strong/Mod)</td>
</tr>
<tr>
<td></td>
<td>• Bedtime H2RAs can be used if AM PPI and nighttime symptoms but development of tachyphylaxis occurs (Cond/Low)</td>
</tr>
<tr>
<td></td>
<td>• Further testing needed prior to use of metoclopramide or baclofen (Cond/Mod)</td>
</tr>
<tr>
<td>Dosing</td>
<td>• Traditional PPIs 30-60 minutes prior to meals (Strong/Mod)</td>
</tr>
<tr>
<td></td>
<td>• Newer PPIs offer dosing flexibility in relation to meals (Cond/Mod)</td>
</tr>
<tr>
<td></td>
<td>• Initiate PPIs once daily prior to AM meal (Strong/Mod)</td>
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<tr>
<td></td>
<td>• Twice daily PPIs if partial response to once daily and/or nighttime symptoms (Strong/low)</td>
</tr>
<tr>
<td></td>
<td>• Twice daily if partial response to once daily or can switch to another PPI (Cond/Low)</td>
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## PPI Safety Concerns

<table>
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<tr>
<th>Adverse Effect</th>
<th>Prevention and Management</th>
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| Risk of Fracture (Hip, wrist, spine) | • Concern for fractures should not affect decision to use PPIs except in patients with other known risk factors for hip fracture (Cond/Mod)  
  • Patients with osteoporosis can remain on PPIs  
  • Limit dose and duration  
  • Ensuring adequate Calcium and Vitamin D  
  • BMD screening if at risk for low bone mass  
  • Weight bearing Exercise |
| Hypomagnesemia                  | • Re-evaluate need  
  • Limit dose and duration  
  • Consider baseline testing (diuretics, digoxin)  
  • Supplementation |
## PPI Safety Concerns

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| Hypomagnesemia                                      | • Re-evaluate need  
• Limit dose and duration  
• Consider baseline testing (diuretics, digoxin)  
• Supplementation                                                                                     |
| *Clostridium difficle* associated diarrhea          | • Re-evaluate need  
• Limit dose and duration  
• Evaluate for *C. difficle* if patient receiving PPI has diarrhea that is not improving. Have patients report diarrhea.  
• Report cases to Medwatch                                                                            |
| Community acquired Pneumonia                        | • Short term use may increase risk; long term risk is not elevated (Cond/Mod)                                                                           |