CHAPTER 17. GASTROESOPHAGEAL REFLUX DISEASE, SELF-ASSESSMENT

QUESTIONS

1. Which one of the following GERD symptom is considered complicated and requires further diagnostic evaluation?
   A. Heartburn
   B. Regurgitation
   C. Chronic cough
   D. Difficulty swallowing
   E. Hiatal hernia

2. Extraesophageal syndrome associated with GERD refers to:
   A. Erosions of the esophagus
   B. Gastroesophageal reflux symptoms associated with disease processes in organs other than the esophagus
   C. Inflammation of the esophagus
   D. Replacement of the squamous epithelial lining in the esophagus with columnar epithelial lining
   E. Barrett esophagus

3. Which of the following PPI regimens is/are preferred as initial treatment in a 60-year-old patient with erosive esophagitis?
   A. Lansoprazole 30 mg once daily × 3 weeks
   B. Pantoprazole 40 mg twice daily × 24 weeks
   C. Esomeprazole 20 mg once daily × 8 weeks
   D. Rabeprazole 20 mg once daily as needed
4. Which of the following PPIs would offer dosing flexibility relative to meal timing?
   A. Dexlansoprazole
   B. Lansoprazole
   C. Omeprazole/sodium bicarbonate
   D. Omeprazole
   E. A and C only

5. On-demand therapy would be most appropriate in patients with:
   A. Atypical symptoms
   B. Intermittent reflux symptoms
   C. Barrett esophagus
   D. Erosive esophagitis
   E. Strictures

6. Which one of the following medications may worsen the symptoms of GERD by decreasing lower esophageal sphincter pressure?
   A. Nifedipine
   B. Alendronate
   C. Naproxen
   D. Quinidine
   E. Ferrous sulfate

7. What is the best treatment regimen for a 55-year-old patient who complains of difficulty swallowing for the last 3 months?
A. Patient-directed therapy with OTC PPI for 2 months. If no improvement, then refer to physician for further evaluation

B. An 8-week course of metoclopramide 10 mg three times daily. If no improvement, then refer to physician for further evaluation

C. An 8-week course of standard dose PPI (once daily) plus further diagnostic evaluation by physician for complicated symptoms

D. An 8-week course of standard dose PPI (once daily) plus standard dose H$_2$-receptor antagonist for breakthrough symptoms

E. Lifestyle modifications only

8. The goals of treatment of GERD are to:
   A. Alleviate symptoms
   B. Promote healing of mucosal injury
   C. Prevent complications
   D. Decrease esophageal pH to less than 2
   E. A, B, and C are all correct

9. Which of the following risk factors would not be a justification for using a PPI in a patient on clopidogrel?
   A. Prior history of upper GI bleed
   B. Advanced age
   C. Dual antiplatelet therapy
   D. Erosive esophagitis
   E. Intermittent GERD symptoms
10. Which recommendation would be most appropriate regarding calcium supplementation for prevention of bone fractures in a healthy 24-year-old woman taking omeprazole 20 mg once daily for GERD?

A. Elemental calcium 2000 mg daily in divided doses
B. No calcium is needed because she does not have risk factors for osteoporosis or fractures
C. Elemental calcium 2000 mg daily plus vitamin D 800 units daily
D. Calcium citrate 500 mg four times daily
E. Calcium gluconate 1 gram IV every month

11. What is the best treatment option for a patient with GERD symptoms that are refractory to the initial PPI regimen?

A. Change to a different PPI
B. Increase the frequency of the current PPI to twice daily
C. Change to a high-dose H2-receptor antagonist regimen (eg, ranitidine 150 mg four times daily)
D. A and B only
E. A, B, and C

12. PPIs decrease stomach acid by which of the following mechanisms?

A. Inhibiting gastric H+/K+-adenosine triphosphatase in gastric parietal cells
B. Inhibiting histamine₂ receptors in gastric parietal cells
C. Forming a viscous solution that floats on the surface of the gastric contents
D. Forming a protective coating over the damaged mucosa
E. Increasing GI motility
13. Maintenance therapy is indicated for patients with:
   A. Continued symptoms after PPI discontinued
   B. Barrett esophagus
   C. Erosive esophagitis
   D. Extraesophageal syndromes associated with GERD
   E. All of the above

14. Which of the following is not considered a potential risk associated with the use of PPIs?
   A. Clostridium difficile infections
   B. Community-acquired pneumonia
   C. Hyperkalemia
   D. Bone fractures
   E. Hypomagnesemia

15. Which of the following surgical options for GERD would be preferred in a morbidly obese patient?
   A. Transoral incisionless fundoplication
   B. Vertical banded gastroplasty
   C. Application of radiofrequency energy to the lower esophageal sphincter
   D. Bariatric surgery with Roux-en-Y gastric bypass
   E. Any of the above options would be acceptable

**ANSWERS**

1. D
2. B
3. C
4.  E
5.  B
6.  A
7.  C
8.  E
9.  E
10. B
11. D
12. A
13. E
14. C
15. D