

Chapter 38, Upper Gastrointestinal System Drugs

1. After teaching a group of nursing students about upper gastrointestinal system drugs, the instructor determines that the teaching was successful when the students correctly choose which drug as a gastrointestinal stimulant?
 - A) Ranitidine
 - B) Misoprostol
 - C) Omeprazole
 - D) Metoclopramide

Answer: D

Rationale: Metoclopramide is classified as a gastrointestinal stimulant. Ranitidine is a histamine H₂ receptor antagonist. Omeprazole is a proton pump inhibitor. Misoprostol is a miscellaneous acid reducer.

Question format: Multiple Choice

Chapter: 38

Learning Objective: 1

Cognitive Level: Remember

Client Needs: Physiological Integrity: Pharmacological Therapies

Integrated Process: Clinical Problem-solving Process (Nursing Process)

Reference: p. 505, Summary Drug Table

2. A nurse has administered trimethobenzamide to a client reporting nausea and vomiting. Which adverse reaction should the nurse **prioritize** on ongoing assessment?
 - A) Acid rebound
 - B) Neurotoxicity
 - C) Blurred vision
 - D) Bone softening

Answer: C

Rationale: The nurse should monitor the client for blurred vision as an adverse reaction to the trimethobenzamide. Acid rebound is an adverse reaction to calcium carbonate. Neurotoxicity and bone softening are adverse reactions to aluminum carbonate gel.

Question format: Multiple Choice

Chapter: 38

Learning Objective: 2

Cognitive Level: Apply

Client Needs: Physiological Integrity: Pharmacological Therapies

Integrated Process: Clinical Problem-solving Process (Nursing Process)

Reference: p. 505, Summary Drug Table

3. A nurse is preparing a teaching plan for a client with an acute peptic ulcer who is prescribed aluminum carbonate gel. Which instructions should the nurse **prioritize** for this client?
- A) Take the drug hourly for the first 2 weeks.
 - B) The drug should be taken early in the morning before breakfast.
 - C) Dissolve the drug in 40 mL of apple juice.
 - D) Take the drug before meals and at bedtime.

Answer: A

Rationale: The drug should be administered hourly for the first 2 weeks when treating an acute peptic ulcer. The nurse instructs the client to administer the drug 1–2 hours after meals and at bedtime after the first 2 weeks. The drug should not be taken before meals or with food as it will interfere in the absorption of the food in the stomach.

Question format: Multiple Choice

Chapter: 38

Learning Objective: 4

Cognitive Level: Apply

Client Needs: Physiological Integrity: Pharmacological Therapies

Integrated Process: Clinical Problem-solving Process (Nursing Process)

Reference: p. 502, Antacids

4. A 30-year-old female client is prescribed misoprostol. Which instruction should the nurse **prioritize** in the teaching session for this client?
- A) Swallow the tablet 1 hour before eating.
 - B) Administer the drug 1 hour before travel.
 - C) Do not chew, open, or crush the tablet.
 - D) Use a reliable contraceptive method.

Answer: D

Rationale: The nurse should instruct the client to use a reliable contraceptive method to avoid pregnancy during the course of treatment as it can cause spontaneous abortion. The nurse should instruct the client taking proton pump inhibitors not to chew, open, or crush the tablet and to swallow the tablet whole at least 1 hour before eating. The nurse needs to inform the client taking a drug for motion sickness to administer it about 1 hour before travel.

Question format: Multiple Choice

Chapter: 38

Learning Objective: 4

Cognitive Level: Apply

Client Needs: Physiological Integrity: Pharmacological Therapies

Integrated Process: Teaching/Learning

Reference: p. 503, Educating the Client and Family

5. A client is brought to the emergency department for a drug overdose. The nurse concludes the emetic is safe to give to the client if which client assessment finding is noted?

- A) Mental status is intact
- B) History of severe hypertension
- C) History of convulsions
- D) Existing condition of hemorrhagic diathesis

Answer: A

Rationale: The client can be administered an emetic only if the client does not have an altered mental status or is not comatose. A client who is comatose has an increased risk of aspiration of stomach contents. Clients with an existing condition of severe hypertension, a medical history of convulsions, or an existing condition of hemorrhagic diathesis should not be given an emetic as these conditions may be exacerbated by vomiting.

Question format: Multiple Choice

Chapter: 38

Learning Objective: 1

Cognitive Level: Apply

Client Needs: Physiological Integrity: Pharmacological Therapies

Integrated Process: Clinical Problem-solving Process (Nursing Process)

Reference: p. 504, Using Emetics Properly

6. A client reports using ginger for motion sickness. The nurse will urge the client to use caution if the client has which medical condition?
- A) Gallstones
 - B) Blood dyscrasia
 - C) Parkinson disease
 - D) Severe liver disease

Answer: A

Rationale: Ginger should be used with caution in clients with hypertension or gallstones and during pregnancy or lactation. Antiemetic prochlorperazine is contraindicated in clients with blood dyscrasia, Parkinson disease, and severe liver disease.

Question format: Multiple Choice

Chapter: 38

Learning Objective: 1

Cognitive Level: Apply

Client Needs: Physiological Integrity: Pharmacological Therapies

Integrated Process: Clinical Problem-solving Process (Nursing Process)

Reference: p. 500, Herbal Considerations

7. A nurse is caring for a client who is prescribed omeprazole and a benzodiazepine. Which assessment finding should the nurse **prioritize**?
- A) Decreased absorption of the proton pump inhibitor
 - B) Risk for toxic level of benzodiazepines
 - C) Increased risk of respiratory depression
 - D) Increased risk of bleeding

Answer: B

Rationale: When the proton pump inhibitor (omeprazole) is administered with benzodiazepines, there will be a risk for a toxic level of benzodiazepines. When the client is administered sucralfate with the proton pump inhibitor, there will be a decrease in absorption of the proton pump inhibitor. When the client is administered an antacid with opioid analgesics, there will be an increased risk of respiratory depression. There will be an increased risk of bleeding when the client is taking oral anticoagulants with the proton pump inhibitor.

Question format: Multiple Choice

Chapter: 38

Learning Objective: 1

Cognitive Level: Apply

Client Needs: Physiological Integrity: Reduction of Risk Potential

Integrated Process: Clinical Problem-solving Process (Nursing Process)

Reference: p. 496, Proton Pump Inhibitors

8. A nurse in a health care facility is caring for a client who is receiving an antiemetic to control vomiting related to chemotherapy. Which nursing diagnoses should the nurse **prioritize** for this client's care plan?
- A) Risk for imbalanced fluid volume
 - B) Disturbed sensory perception
 - C) Impaired physical mobility
 - D) Ineffective tissue perfusion

Answer: A

Rationale: The care plan should include risk for imbalanced fluid volume for the client receiving an antiemetic due to the possible fluid losses associated with vomiting as well as the possible decrease in fluid intake. Disturbed sensory perception, impaired physical mobility, and ineffective tissue perfusion are not applicable.

Question format: Multiple Choice

Chapter: 38

Learning Objective: 3

Cognitive Level: Analyze

Client Needs: Physiological Integrity: Reduction of Risk Potential

Integrated Process: Clinical Problem-solving Process (Nursing Process)

Reference: p. 501, Nursing Diagnoses

9. A client with a nasogastric tube is prescribed misoprostol. The nurse anticipates administering this drug in which manner?
- A) Tablet that can be crushed
 - B) Liquid formulation
 - C) Intravenous administration
 - D) Intramuscular injection

Answer: B

Rationale: The nurse should request the liquid form when administration is in a tube to decrease the chance of a clogged NG tube. Although it is appropriate to crush the tablet and mix it with apple juice, there is still a risk for clogging. Intravenous or intramuscular administration would be inappropriate. The IV route is typically preferred if the client has an existing IV line because these drugs are irritating, and IM injections need to be given deep into the muscular tissue to minimize harm.

Question format: Multiple Choice

Chapter: 38

Learning Objective: 4

Cognitive Level: Apply

Client Needs: Physiological Integrity: Reduction of Risk Potential

Integrated Process: Clinical Problem-solving Process (Nursing Process)

Reference: p. 502, Non-oral Methods of Drug Administration

10. The nurse is preparing to administer ranitidine to a client who is currently receiving warfarin. Which assessment finding should the nurse **prioritize** for this client?
- A) Decreased white blood cell count
 - B) Respiratory depression
 - C) Increased bleeding
 - D) Decreased seizures

Answer: C

Rationale: Histamine H₂ receptor antagonists when given with warfarin place the client at an increased risk for bleeding. A decreased white blood cell count occurs when histamine H₂ receptor antagonists are given with carmustine. An increased risk of respiratory depression occurs when histamine H₂ receptor antagonists are given with opioid analgesics. This class of drugs does not interact with any antiseizure medications. There is a risk for toxic levels of antiseizure drugs when used concomitantly with proton pump inhibitors.

Question format: Multiple Choice

Chapter: 38

Learning Objective: 2

Cognitive Level: Apply

Client Needs: Physiological Integrity: Pharmacological Therapies

Integrated Process: Clinical Problem-solving Process (Nursing Process)

Reference: p. 495, Histamine H₂ Antagonists

11. The nurse is assessing a client who reports symptoms of upset stomach and chronic diarrhea. The nurse concludes the client should be administered which antacid(s) cautiously? Select all that apply.
- A) Calcium carbonate
 - B) Magnesium hydroxide
 - C) Magnesium oxide
 - D) Aluminum hydroxide
 - E) Sodium bicarbonate

Answer: B, C, E

Rationale: The magnesium- and sodium-containing antacids may have a laxative effect and produce diarrhea. Aluminum- and calcium-containing antacids tend to produce constipation.

Question format: Multiple Select

Chapter: 38

Learning Objective: 1

Cognitive Level: Apply

Client Needs: Physiological Integrity: Reduction of Risk Potential

Integrated Process: Clinical Problem-solving Process (Nursing Process)

Reference: p. 494, Acid Neutralizers: Antacids

12. A client with a history of chronic constipation presents to the clinic with reports of occasional heartburn. The nurse will caution the client about using which antacid(s) that may exacerbate the constipation? Select all that apply.
- A) Calcium carbonate
 - B) Magnesium hydroxide
 - C) Magnesium oxide
 - D) Aluminum hydroxide
 - E) Sodium bicarbonate

Answer: A, D

Rationale: The aluminum- and calcium-containing antacids may produce constipation. Magnesium- and sodium-containing antacids tend to have a laxative effect.

Question format: Multiple Select

Chapter: 38

Learning Objective: 1

Cognitive Level: Remember

Client Needs: Physiological Integrity: Reduction of Risk Potential

Integrated Process: Clinical Problem-solving Process (Nursing Process)

Reference: p. 494, Acid Neutralizers: Antacids

13. A nurse educating a client on the antacid aluminum hydroxide should warn the client about which adverse reaction(s)? Select all that apply.
- A) Alopecia
 - B) Anorexia
 - C) Diarrhea
 - D) Tremors
 - E) Bone pain

Answer: B, D, E

Rationale: Adverse reactions of aluminum hydroxide include constipation, intestinal impaction, anorexia, weakness, tremors, and bone pain.

Question format: Multiple Select

Chapter: 38

Learning Objective: 1

Cognitive Level: Apply

Client Needs: Physiological Integrity: Pharmacological Therapies

Integrated Process: Teaching/Learning

Reference: p. 494, Acid Neutralizers: Antacids

14. A nurse is preparing to teach a client about the antacid magnesium oxide that the health care provider has prescribed. Which adverse reaction(s) should the nurse point out to the client? Select all that apply.

A) Tremors
B) Anorexia
C) Diarrhea
D) Dehydration
E) Hypotension

Answer: C, D, E

Rationale: Adverse reactions of magnesium oxide include severe diarrhea, dehydration, and hypermagnesemia (nausea, vomiting, hypotension, and decreased respirations).

Question format: Multiple Select

Chapter: 38

Learning Objective: 1

Cognitive Level: Remember

Client Needs: Physiological Integrity: Pharmacological Therapies

Integrated Process: Clinical Problem-solving Process (Nursing Process)

Reference: p. 494, Acid Neutralizers: Antacids

15. A nurse has administered the antacid calcium carbonate to a client. Which adverse reaction(s) should the nurse monitor the client for during the ongoing assessment? Select all that apply.

A) Rebound hyperacidity
B) Anorexia
C) Headache
D) Dehydration
E) Confusion

Answer: A, C, E

Rationale: Adverse reactions of calcium carbonate include rebound hyperacidity, metabolic alkalosis, hypercalcemia, vomiting, confusion, headache, renal calculi, and neurologic impairment.

Question format: Multiple Select

Chapter: 38

Learning Objective: 1

Cognitive Level: Apply

Client Needs: Physiological Integrity: Pharmacological Therapies

Integrated Process: Clinical Problem-solving Process (Nursing Process)

Reference: p. 494, Acid Neutralizers: Antacids

16. A client asks the nurse if it would be okay to take ginger to aid with digestion. Before telling the client it is okay to take ginger, the nurse should assess the client's history for which medical condition(s)? Select all that apply.
- A) Hypertension
 - B) Kidney stones
 - C) Vitamin B₁₂ deficiency
 - D) Gallstones
 - E) Liver disease

Answer: A, D

Rationale: Ginger should be used cautiously in clients with hypertension or gallstones (not kidney stones) and during pregnancy and lactation. Prochlorperazine is contraindicated in clients with severe liver disease. The prolonged treatment with proton pump inhibitors may decrease the body's ability to absorb vitamin B₁₂. Aluminum carbonate can be used to help prevent the formation of phosphate-based urinary stones.

Question format: Multiple Select

Chapter: 38

Learning Objective: 1

Cognitive Level: Apply

Client Needs: Physiological Integrity: Reduction of Risk Potential

Integrated Process: Clinical Problem-solving Process (Nursing Process)

Reference: p. 500, Herbal Considerations

17. A nurse is conducting an ongoing assessment after administering an antacid to a client. The nurse should question the effectiveness of which drug(s) if noted in the client's record? Select all that apply.
- A) Simvastatin
 - B) Isoniazid
 - C) Digoxin
 - D) Phenytoin
 - E) Enalapril

Answer: B, C, D

Rationale: Antacids decrease the absorption of digoxin, isoniazid, phenytoin, and chlorpromazine, leading to decreased effect of those drugs. There is no noted interaction between antacids and simvastatin or enalapril.

Question format: Multiple Select

Chapter: 38

Learning Objective: 1

Cognitive Level: Apply

Client Needs: Physiological Integrity: Pharmacological Therapies

Integrated Process: Clinical Problem-solving Process (Nursing Process)

Reference: p. 494, Acid Neutralizers: Antacids

18. A client is diagnosed with an infection with *H. pylori*. The nurse anticipates the client will be prescribed which drug(s) in combination with an antibiotic? Select all that apply.
- A) Metoclopramide
 - B) Omeprazole
 - C) Ondansetron
 - D) Lansoprazole
 - E) Promethazine

Answer: B, D

Rationale: The proton pump inhibitors, like omeprazole and lansoprazole, are commonly used in combination with certain antibiotics in the treatment of *H. pylori*. Metoclopramide is a GI stimulant and is used to treat delayed gastric emptying and emesis. Ondansetron is an antiemetic that is used with chemotherapy to address nausea and vomiting. Promethazine is used to control nausea and vomiting associated with anesthesia and surgery, as well as motion sickness.

Question format: Multiple Select

Chapter: 38

Learning Objective: 1

Cognitive Level: Apply

Client Needs: Physiological Integrity: Pharmacological Therapies

Integrated Process: Clinical Problem-solving Process (Nursing Process)

Reference: p. 495, Histamine H₂ Antagonists

19. The nurse is preparing to administer a prescribed medication to a client diagnosed with GERD. If the nurse discovers the client has a history of vitamin B₁₂, which medication(s) will the nurse administer cautiously? Select all that apply.
- A) Metoclopramide
 - B) Rabeprazole
 - C) Sucralfate
 - D) Pantoprazole
 - E) Promethazine

Answer: B, D

Rationale: The nurse should administer proton pump inhibitors, like rabeprazole and pantoprazole, cautiously to clients with vitamin B₁₂ deficiency as the prolonged use of these drugs decreases the body's ability to absorb vitamin B₁₂.

Question format: Multiple Select

Chapter: 38

Learning Objective: 1

Cognitive Level: Apply

Client Needs: Physiological Integrity: Reduction of Risk Potential

Integrated Process: Clinical Problem-solving Process (Nursing Process)

Reference: p. 496, Proton Pump Inhibitors

20. A health care provider has prescribed omeprazole for a client. The nurse will carefully monitor the client for increased adverse reactions if the client is also prescribed which additional medication(s)? Select all that apply.
- A) Lithium
 - B) Digoxin
 - C) Diazepam
 - D) Warfarin
 - E) Ketoconazole

Answer: B, C, D

Rationale: The initiation of proton pump inhibitors, like omeprazole, can result in increased adverse reactions and toxicities of warfarin, benzodiazepines, digoxin, phenytoin, and clarithromycin. The concomitant use of ketoconazole and proton pump inhibitors may result in the decreased absorption of the anti-infective. The use of lithium with an antiemetic can result in the increased risk of extrapyramidal effects.

Question format: Multiple Select

Chapter: 38

Learning Objective: 1

Cognitive Level: Apply

Client Needs: Physiological Integrity: Reduction of Risk Potential

Integrated Process: Clinical Problem-solving Process (Nursing Process)

Reference: p. 496, Proton Pump Inhibitors

21. The nursing instructor is teaching a class illustrating the action of various GI medications. The instructor determines the class is successful when the students correctly choose which medication(s) that exert their action by reducing gastric motility and decreasing the amount of secreted acid in the stomach? Select all that apply.
- A) Omeprazole
 - B) Ranitidine
 - C) Propantheline
 - D) Sucralfate
 - E) Glycopyrrolate

Answer: C, E

Rationale: Propantheline and glycopyrrolate are anticholinergic drugs used to reduce gastric motility and decrease the amount of acid secreted by the stomach via blockade of cholinergic receptors. Omeprazole is a proton pump inhibitor that suppresses gastric acid secretion by inhibiting the ATPase enzyme system. Ranitidine is a histamine H₂ antagonist that inhibits the action of histamine at H₂ receptor cells of the stomach which then reduces the secretion of gastric acid. Sucralfate is a pepsin inhibitor or mucosal protective drug. It binds with protein molecules to form a viscous substance that buffers acid and protects the mucosal lining.

Question format: Multiple Select

Chapter: 38

Learning Objective: 1

Cognitive Level: Understand

Client Needs: Physiological Integrity: Pharmacological Therapies

Integrated Process: Clinical Problem-solving Process (Nursing Process)

Reference: p. 498, Miscellaneous Acid Reducers

22. A nurse is preparing a presentation for a community group to include information on the proper use of syrup of ipecac. The nurse should point out that the use of ipecac is specially contraindicated in which situation(s)? Select all that apply.
- A) The client is comatose or has altered mental status.
 - B) The client has erosive esophagitis.
 - C) The client is having seizures.
 - D) The substance is a caustic or corrosive agent.
 - E) The substance is a low-viscosity petroleum distillate.

Answer: A, C, D, E

Rationale: Syrup of ipecac should not be used unless specifically directed by the health care provider. It is also important for the nurse or primary care provider contact poison control center to obtain information regarding treatment. The use of syrup of ipecac is specifically contraindicated in the following cases: the client is comatose or has altered mental status, the client is having seizures, the substance is a caustic or corrosive agent, the substance is a low-viscosity petroleum distillate, or the substance is capable of also altered mental status or convulsions. It is also possible that, depending on what substance is swallowed, the client with an erosive esophagitis would also be unable to use syrup of ipecac.

Question format: Multiple Select

Learning Objective: 1

Chapter: 38

Cognitive Level: Apply

Client Needs: Physiological Integrity: Pharmacological Therapies

Integrated Process: Teaching/Learning

Reference: p. 504, Using Emetics Properly

23. The caregivers of a young child present to the emergency department with reports that the child ingested something they should not have. Which assessment(s) should the nurse **prioritize** before administering an antiemetic to this young client? Select all that apply.
- A) What chemicals or substances were ingested?
 - B) What are the client's current medications?
 - C) What time was the substance ingested?
 - D) What is the client's blood pressure?
 - E) What symptoms were noted before seeking treatment?

Answer: A, C, E

Rationale: Before an emetic is given, it is extremely important to know the chemicals or substances that have been ingested, the time they were ingested, and what symptoms were noted before seeking medical treatment. Assessing the client's current medications can occur after the initial emergency is addressed. Obtaining the blood pressure is important but not vital in determining whether the use of an antiemetic is warranted or safe. The initial concern is to counteract the chemicals and prevent further damage.

Question format: Multiple Select

Chapter: 38

Learning Objective: 2

Cognitive Level: Apply

Client Needs: Physiological Integrity: Reduction of Risk Potential

Integrated Process: Clinical Problem-solving Process (Nursing Process)

Reference: p. 504, Using Emetics Properly

24. A nurse is preparing a client to receive an antineoplastic drug. The nurse prepares to administer which additional drug(s) to the client? Select all that apply.
- A) Lansoprazole
 - B) Ondansetron
 - C) Metoclopramide
 - D) Promethazine
 - E) Granisetron

Answer: B, E

Rationale: Some antineoplastic drugs or chemotherapy are highly emetogenic. 5-HT₃ receptor antagonists, such as ondansetron and granisetron, are used in the prevention of chemotherapy-induced nausea and vomiting. These drugs are administered regardless of emesis history before the chemotherapy is given. The first dose is typically given IV during therapy and followed at home with oral doses.

Question format: Multiple Select

Chapter: 38

Learning Objective: 1

Cognitive Level: Apply

Client Needs: Physiological Integrity: Pharmacological Therapies

Integrated Process: Clinical Problem-solving Process (Nursing Process)

Reference: p. 502, Prevention of Nausea in Clients Undergoing Cancer Therapy

25. The nurse prioritizes a nursing diagnosis of Imbalanced nutrition: less than body requirements for client who is prescribed an antiemetic. Which instruction(s) should the nurse include in the client's plan of care? Select all that apply.
- A) Remove items with strong smells and odors.
 - B) Use mouthwash or frequent oral rinses.
 - C) Make the environment as pleasant as possible.
 - D) Explain that the drug may change the color of the stool.
 - E) Follow the medication with a small amount of water.

Answer: A, B, C

Rationale: When caring for a client receiving an antiemetic with a nursing diagnosis of imbalanced nutrition: less than body requirements, the nurse makes the environment as pleasant as possible to enhance the client's appetite and removes items with strong smells and odors. The nurse gives the client mouthwash or frequent oral rinses to remove the disagreeable taste that accompanies vomiting. Stool color is unaffected. Liquid antacids could be followed with a small amount of water.

Question format: Multiple Select

Chapter: 38

Learning Objective: 3

Cognitive Level: Apply

Client Needs: Physiological Integrity: Basic Care and Comfort

Integrated Process: Clinical Problem-solving Process (Nursing Process)

Reference: p. 501, Client Receiving a Drug for an Upper Gastrointestinal Condition

26. A group of nursing students are analyzing the various categories of upper gastrointestinal system drugs. The instructor determines the session is successful when the students correctly choose which drug(s) as an example of a proton pump inhibitor? Select all that apply.
- A) Nizatidine
 - B) Omeprazole
 - C) Esomeprazole
 - D) Sucralfate
 - E) Misoprostol

Answer: B, C

Rationale: Omeprazole and esomeprazole are examples of proton pump inhibitors. Nizatidine is a histamine H₂ receptor antagonist. Sucralfate and misoprostol are examples of miscellaneous acid reducers.

Question format: Multiple Select

Chapter: 38

Learning Objective: 1

Cognitive Level: Understand

Client Needs: Physiological Integrity: Pharmacological Therapies

Integrated Process: Teaching/Learning

Reference: p. 496, Proton Pump Inhibitors

27. A nurse is teaching a client about metoclopramide. The nurse determines that the teaching session was successful when the client correctly chooses which sign(s) or symptom(s) to report to the health care provider? Select all that apply.
- A) Difficulty swallowing
 - B) Uncontrolled tongue movements
 - C) Muscle laxity
 - D) Shuffling gait
 - E) Diarrhea

Answer: A, B, D

Rationale: When taking metoclopramide, the client should immediately report any of the following signs: difficulty speaking or swallowing; mask-like face; shuffling gait; rigidity (not laxity); tremors; uncontrolled movements of the mouth, face, or extremities; and uncontrolled chewing or unusual movements of the tongue. Diarrhea does not require the client to notify the health care provider.

Question format: Multiple Select

Chapter: 38

Learning Objective: 4

Cognitive Level: Analyze

Client Needs: Physiological Integrity: Reduction of Risk Potential

Integrated Process: Teaching/Learning

Reference: p. 503, Educating the Client and Family