

Chapter 16, Anesthetic Drugs

1. The nurse is assessing a client in the PACU following surgery. The nurse notes the client received an anesthetic agent via a special vaporizer to prevent which reaction?
 - A) Gastric upset
 - B) Respiratory tract irritation
 - C) Cardiac dysrhythmias
 - D) Hypoxemia

Answer: B

Rationale: Desflurane is a volatile liquid that must be administered with a special vaporizer because delivery to the client without a vaporizer can result in irritation of the client's respiratory tract. It is the only agent which must use this special vaporizer. Some anesthetics will cause gastric upset and some preanesthetic agents are used to prevent this. Fentanyl can cause cardiac dysrhythmias and nitrous oxide can lead to hypoxemia. However, none of these agents require the vaporizer.

Question Format: Multiple Choice

Chapter: 16

Learning Objective: 3

Cognitive Level: Understand

Client Needs: Physiological Integrity: Pharmacological Therapies

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

Reference: p. 211, Gases and Volatile Liquids

2. A nurse working in an outpatient surgical setting may see which general anesthetic agent administered via inhalation?
 - A) Sevoflurane
 - B) Desflurane
 - C) Isoflurane
 - D) Propofol

Answer: A

Rationale: A nurse working in an outpatient surgical setting may see sevoflurane used in outpatient general anesthesia. Propofol is used for the induction and maintenance of anesthesia. Desflurane and isoflurane are volatile liquids which are also used for anesthesia.

Question Format: Multiple Choice

Chapter: 16

Learning Objective: 3

Cognitive Level: Understand

Client Needs: Physiological Integrity: Pharmacological Therapies

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

Reference: p. 211, Gases and Volatile Liquids

3. The nurse is preparing a client for minor surgery in the lower extremity. The nurse will explain to the client that regional anesthesia will be used for the procedure and placed in which location in the body?
- A) In the veins
 - B) In the arteries
 - C) In the nerves
 - D) In the capillaries

Answer: C

Rationale: Regional anesthesia involves injection around the client's nerves. Doing so prevents these nerves from sending pain signals to the brain. Regional anesthesia is never injected into the veins, arteries, or capillaries. General anesthesia can be injected in the veins.

Question Format: Multiple Choice

Chapter: 16

Learning Objective: 1

Cognitive Level: Apply

Client Needs: Physiological Integrity: Pharmacological Therapies

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

Reference: p. 207, Regional Anesthesia

4. A client admitted to a local health care facility is to undergo surgery with spinal anesthesia. Which actions is the nurse most likely to assess when caring for this client?
- A) Moderate muscle relaxation
 - B) Loss of feeling in the lower abdomen
 - C) Hypotension as anesthesia deepens
 - D) Increase in the client's heart rate

Answer: B

Rationale: Spinal anesthesia involves the injection of a local anesthetic drug into the subarachnoid space of the spinal cord. There is a loss of feeling (anesthesia) and movement in the lower extremities, lower abdomen, and perineum. Spinal anesthesia is not known to increase a client's heart rate. Spinal anesthesia also does not cause hypotension or moderate muscle relaxation. Sevoflurane may be responsible for hypotension. In general anesthesia, the medications will decrease the heart rate.

Question Format: Multiple Choice

Chapter: 16

Learning Objective: 3

Cognitive Level: Apply

Client Needs: Physiological Integrity: Pharmacological Therapies

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

Reference: p. 208, Spinal Anesthesia

5. The nurse prepares to teach a client about methohexital. The nurse will explain to the client this drug will have which effect?
- A) Skeletal muscle relaxation
 - B) Profound analgesia
 - C) CNS depression
 - D) Neuroleptanalgesia

Answer: C

Rationale: Methohexital is an ultrashort-acting barbiturate that depresses the CNS to produce hypnosis and anesthesia, but it does not produce analgesia. Skeletal muscle relaxation is caused by skeletal muscle relaxants, halothane, and enflurane. An anesthetic state characterized by profound analgesia is produced by ketamine, which is a rapid-acting general anesthetic. Neuroleptanalgesia is caused by a combination of fentanyl and droperidol.

Question Format: Multiple Choice

Chapter: 16

Learning Objective: 3

Cognitive Level: Apply

Client Needs: Physiological Integrity: Pharmacological Therapies

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

Reference: p. 211, 13, Barbiturate and Similar Agents

6. The nurse is preparing a client for surgery. Which action should the nurse prioritize before administering the preanesthetic agent?
- A) Explain postoperative client activities.
 - B) Check the client every 5 to 15 minutes.
 - C) Assess the respiratory status of the client.
 - D) Admit the client to an appropriate unit.

Answer: A

Rationale: When caring for a client prescribed preanesthetic drugs, the nurse should demonstrate, describe, and explain postoperative client activities, such as deep breathing, coughing, and leg exercises. The nurse should check the client every 5 to 15 minutes for emergence from anesthesia, but this is done after the administration of anesthesia, not before. Assessing the respiratory status of the client and admitting the client to an appropriate unit are both postoperative interventions that a nurse should perform. Therefore, these are not performed before the administration of preanesthetic drugs and anesthesia.

Question Format: Multiple Choice

Chapter: 16

Learning Objective: 2

Cognitive Level: Apply

Client Needs: Physiological Integrity: Pharmacological Therapies

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

Reference: p. 209, Uses of Preanesthetic Drugs

7. A client has arrived for scheduled surgery. Before administering the prescribed preanesthetic agent, which action will the nurse prioritize?
- A) Review the client's surgical and anesthesia records.
 - B) Position the client to prevent aspiration of vomitus and secretions.
 - C) Check the chart for any abnormal laboratory test results.
 - D) Check the airway for patency and assess the respiratory status.

Answer: C

Rationale: Before surgery and administering the preanesthetic, the nurse should check the client's chart for any abnormal laboratory test results. Reviewing the client's surgical and anesthesia records, positioning the client to prevent aspiration of vomitus and secretions, checking the airway for patency, and assessing the respiratory status are the postoperative responsibilities of the nurse.

Question Format: Multiple Choice

Chapter: 16

Learning Objective: 5

Cognitive Level: Apply

Client Needs: Physiological Integrity: Reduction of Risk Potential

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

Reference: p. 212, Preanesthesia

8. The nurse is conducting a preadministration assessment of a 67-year-old client. The nurse will question the prescribed glycopyrrolate if which disorder is noted in the client history?
- A) Diabetes
 - B) Hypotension
 - C) Respiratory problems
 - D) Myocardial ischemia

Answer: D

Rationale: The nurse should confirm that the 53-year-old client does not have myocardial ischemia to ensure that the use of glycopyrrolate is not contraindicated. The other conditions that contraindicate the drug's use include prostatic hypertrophy and glaucoma. Diabetes, hypotension, or respiratory problems are not contraindications for the use of glycopyrrolate.

Question Format: Multiple Choice

Chapter: 16

Learning Objective: 2

Cognitive Level: Apply

Client Needs: Physiological Integrity: Reduction of Risk Potential

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

Reference: p. 209, Uses of Preanesthetic Drugs

9. A client shares with a nurse the history of a recent tooth extraction. The nurse determines the client had which type of anesthesia after further questioning of the client?

- A) Regional anesthesia
- B) General anesthesia
- C) Topical anesthesia
- D) Local infiltration anesthesia

Answer: D

Rationale: Local infiltration anesthesia is often used for dental procedures. Regional anesthesia covers a larger area than that covered by local infiltration anesthesia, so it is not used for minor surgeries like that of a tooth extraction. General anesthesia is used to achieve a pain-free state for the entire body and is not the most appropriate type of anesthesia for a tooth extraction. Similarly, topical anesthesia is used to desensitize skin or mucous membranes for injection of a deeper local anesthetic.

Question Format: Multiple Choice

Chapter: 16

Learning Objective: 1

Cognitive Level: Understand

Client Needs: Physiological Integrity: Pharmacological Therapies

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

Reference: p. 207, Local Infiltration Anesthesia

10. A nursing instructor is teaching a group of nursing students about the various types of anesthesia. The instructor determines the teaching is successful when the students correctly choose which factor as influencing the type of anesthesia used?
- A) Gender of the client
 - B) Length of surgical procedure
 - C) Preanesthetic drug prescribed
 - D) Postoperative care involved

Answer: B

Rationale: The choice of general anesthesia depends on factors that include the general physical condition of the client; the area, organ, or system being operated on; and the anticipated length of the surgical procedure. The selection of general anesthesia does not depend on the gender of the client, the preanesthetic drug prescribed for the client, or the postoperative care involved.

Question Format: Multiple Choice

Chapter: 16

Learning Objective: 4

Cognitive Level: Analyze

Client Needs: Physiological Integrity: Pharmacological Therapies

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

Reference: p. 210, General Anesthesia

11. The nurse is preparing a client for surgery which will include endotracheal intubation. The nurse will include information about which drugs in the discussion?

- A) Benzodiazepines
- B) Barbiturates
- C) Opioid analgesics
- D) Skeletal muscle relaxants

Answer: D

Rationale: Skeletal muscle relaxants help produce relaxation of skeletal muscles during certain types of surgeries involving the chest or abdomen and are used to facilitate the insertion of an endotracheal tube. Barbiturates are used for the induction of anesthesia. Benzodiazepines are used to relieve anxiety, induce anesthesia, and consciously sedate the client before minor procedures. Opioid analgesics are used to produce neuroleptanalgesia characterized by general quietness, reduced motor activity, and profound analgesia.

Question Format: Multiple Choice

Chapter: 16

Learning Objective: 3

Cognitive Level: Apply

Client Needs: Physiological Integrity: Pharmacological Therapies

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

Reference: p. 212, Skeletal Muscle Relaxants

12. After teaching a group of students about the stages of general anesthesia, the instructor determines that the teaching was successful when the students correctly choose which factor as characteristic of the first stage?
- A) Delirium
 - B) Analgesia
 - C) Respiratory paralysis
 - D) Excitement

Answer: B

Rationale: Stage I is characterized by analgesia; stage II is the stage of delirium and excitement; stage III is the stage of surgical analgesia; and stage IV is the stage of respiratory paralysis.

Question Format: Multiple Choice

Chapter: 16

Learning Objective: 4

Cognitive Level: Analyze

Client Needs: Physiological Integrity: Physiological Adaptation

Integrated Process: Teaching/Learning

Reference: p. 210, Stages of General Anesthesia

13. The nurse is explaining the prescribed drugs to a client scheduled for surgery. The nurse determines the discussion is successful when the client can explain the use of atropine is to accomplish which purpose?
- A) Decrease secretions
 - B) Relieve anxiety
 - C) Promote sedation

D) Promote relaxation

Answer: A

Rationale: Atropine is a cholinergic blocker that is given to dry secretions in the upper respiratory tract. An opioid or antianxiety drug may be given to relax or sedate the client.

Question Format: Multiple Choice

Chapter: 16

Learning Objective: 3

Cognitive Level: Remember

Client Needs: Physiological Integrity: Pharmacological Therapies

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

Reference: p. 209, Uses of Preanesthetic Drugs

14. The nursing instructor is teaching a class explaining the basic information concerning the different types of anesthesia. The instructor determines the class is successful after the students correctly choose which formats as examples of a local anesthetic? Select all that apply.
- A) Topical anesthesia
 - B) General anesthesia
 - C) Local infiltration anesthesia
 - D) Regional anesthesia
 - E) Spinal anesthesia

Answer: A, C, D, E

Rationale: Local anesthesia includes topical, local infiltration, and regional anesthesia (spinal anesthesia and conduction block are types of regional anesthesia).

Question Format: Multiple Select

Chapter: 16

Learning Objective: 1

Cognitive Level: Remember

Client Needs: Physiological Integrity: Pharmacological Therapies

Integrated Process: Teaching/Learning

Reference: p. 207, Local Anesthesia

15. The nurse is preparing a client for spinal anesthesia. After teaching, the nurse determines the client is prepared to expect a loss of sensation in which areas of the body? Select all that apply.
- A) Arms
 - B) Legs
 - C) Face
 - D) Lower abdomen
 - E) Hands

Answer: B, D

Rationale: The nurse should inform a client receiving spinal anesthesia to expect a loss of feeling and movement in the lower extremities, lower abdomen, and perineum.

Question Format: Multiple Select

Chapter: 16

Learning Objective: 1

Cognitive Level: Apply

Client Needs: Physiological Integrity: Pharmacological Therapies

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

Reference: p. 208, Spinal Anesthesia

16. The nurse is preparing to assist a health care provider with a procedure utilizing a local injectable anesthetic. The nurse will complete which activities in this process? Select all that apply.
- A) Taking the client's allergy history
 - B) Explaining how the anesthetic will be administered
 - C) Preparing the area to be anesthetized
 - D) Administering the anesthetic
 - E) Applying a dressing to the area if appropriate

Answer: A, B, C, E

Rationale: The nurse is responsible for taking the client's allergy history, explaining how the anesthetic will be administered, preparing the area to be anesthetized, and applying a dressing to the area if appropriate. The health care provider administers the local injectable anesthetic.

Question Format: Multiple Select

Chapter: 16

Learning Objective: 1

Cognitive Level: Apply

Client Needs: Physiological Integrity: Pharmacological Therapies

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

Reference: p. 208, Preparing the Client for Local Anesthesia

17. A nurse is preparing a pregnant woman for delivery. The nurse will teach the client about which potential form of anesthesia? Select all that apply.
- A) Epidural block
 - B) Brachial plexus block
 - C) Transsacral block
 - D) Local infiltration anesthesia
 - E) General anesthesia

Answer: A, C

Rationale: Epidural and transsacral blocks are often used in obstetrics during the birthing process.

Question Format: Multiple Select

Chapter: 16

Learning Objective: 1

Cognitive Level: Apply

Client Needs: Physiological Integrity: Pharmacological Therapies

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

Reference: p. 208, Conduction Blocks

18. The nurse is setting up the supplies for a health care provider to suture a major laceration. The nurse should question the use of an anesthetic agent with epinephrine if which area of the body is involved? Select all that apply.
- A) Toe
 - B) Scalp
 - C) Face
 - D) Abdomen
 - E) Finger

Answer: A, E

Rationale: When the local anesthetic is used on an extremity (such as a toe or finger), the use of epinephrine with a local injectable drug is contraindicated.

Question Format: Multiple Select

Chapter: 16

Learning Objective: 1

Cognitive Level: Apply

Client Needs: Physiological Integrity: Pharmacological Therapies

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

Reference: p. 208, Administering Local Anesthesia

19. A nursing instructor is teaching a class on preanesthetic medications. The instructor determines that the teaching was successful when the students correctly choose which as an example? Select all that apply.
- A) Antihypertensives
 - B) Opioid agonists
 - C) Antianxiety agents
 - D) Antiemetics
 - E) Cholinergic antagonists

Answer: B, C, D, E

Rationale: Opioid agonists, antianxiety agents, antiemetics, and cholinergic antagonists represent classes of drugs commonly used as preanesthetics.

Question Format: Multiple Select

Chapter: 16

Learning Objective: 2

Cognitive Level: Analyze

Client Needs: Physiological Integrity: Pharmacological Therapies

Integrated Process: Teaching/Learning

Reference: p. 209, Uses of Preanesthetic Drugs

20. A client is scheduled for surgery. Before surgery, the nurse would be responsible for which activities? Select all that apply.

- A) Describing the preparation for surgery ordered by the health care provider
- B) Assessing the physical status of the client
- C) Describing postoperative care
- D) Demonstrating postoperative client activities
- E) Demonstrating the use of a PCA pump

Answer: A, B, C, D, E

Rationale: The nurse is responsible for describing the preparation for surgery ordered by the health care provider, assessing the physical status of the client, describing postoperative care, demonstrating postoperative client activities, and demonstrating the use of a PCA pump.

Question Format: Multiple Select

Chapter: 16

Learning Objective: 5

Cognitive Level: Apply

Client Needs: Physiological Integrity: Reduction of Risk Potential

Integrated Process: Teaching/Learning

Reference: p. 209, Uses of Preanesthetic Drugs

21. A nurse is preparing to teach a client about an upcoming operation. Which factors will the nurse include as influencing the choice of general anesthesia? Select all that apply.
- A) Client's general physical condition
 - B) Area of the planned surgery
 - C) Anticipated length of the surgery
 - D) Client's weight
 - E) Client's temperature

Answer: A, B, C

Rationale: The choice of anesthetic drug depends on many factors, including general physical condition of the client; area, organ, or system being operated on; and anticipated length of the surgical procedure. The client's weight may affect the dose of the drug to be given. The client's temperature is unrelated to the choice of anesthetic.

Question Format: Multiple Select

Chapter: 16

Learning Objective: 5

Cognitive Level: Apply

Client Needs: Physiological Integrity: Pharmacological Therapies

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

Reference: p. 210, General Anesthesia

22. When examining information about general anesthetics, a group of students read about volatile liquids used as inhaled general anesthetics. The instructor determines the students have learned the information after they correctly choose which as a volatile liquid? Select all that apply.
- A) Sevoflurane

- B) Desflurane
- C) Nitrous oxide
- D) Isoflurane
- E) Remifentanyl

Answer: A, B, D

Rationale: Sevoflurane, desflurane, and isoflurane are examples of volatile liquids used as inhaled anesthetics. Nitrous oxide is an example of a gas anesthetic. Remifentanyl is an opioid preanesthetic.

Question Format: Multiple Select

Chapter: 16

Learning Objective: 3

Cognitive Level: Remember

Client Needs: Physiological Integrity: Pharmacological Therapies

Integrated Process: Teaching/Learning

Reference: p. 211, Gases and Volatile Liquids

23. A nurse is assessing the record of a client who has returned to the unit after abdominal surgery. Which agent might the nurse note as being used for the induction of anesthesia? Select all that apply.
- A) Lidocaine
 - B) Prilocaine
 - C) Methohexital
 - D) Etomidate
 - E) Propofol

Answer: C, D, E

Rationale: Methohexital, propofol, and etomidate are examples of medications used for the induction of anesthesia. Lidocaine and prilocaine are local anesthetics.

Question Format: Multiple Select

Chapter: 16

Learning Objective: 3

Cognitive Level: Understand

Client Needs: Physiological Integrity: Pharmacological Therapies

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

Reference: p. 211, Barbiturate and Similar Agents

24. A nurse is researching the actions of midazolam. Which action would the nurse expect to find about this drug's use as an anesthetic? Select all that apply.
- A) A common preanesthetic antiemetic drug
 - B) Appropriate for induction of anesthesia
 - C) Often for conscious sedation prior to minor procedures
 - D) Limited for use with general anesthesia
 - E) Supplementation to nitrous oxide and oxygen for short surgical procedures

Answer: B, C, E

Rationale: Midazolam, a short-acting benzodiazepine CNS depressant, is used as a preanesthetic drug to relieve anxiety (not prevent vomiting); for induction of anesthesia; for conscious sedation before minor procedures, such as endoscopy; and to supplement nitrous oxide and oxygen for short surgical procedures.

Question Format: Multiple Select

Chapter: 16

Learning Objective: 3

Cognitive Level: Apply

Client Needs: Physiological Integrity: Pharmacological Therapies

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

Reference: p. 211, Benzodiazepines

25. The nurse is monitoring a client who has received ketamine. Which reactions will the nurse anticipate the client to exhibit? Select all that apply.
- A) Analgesia
 - B) Cardiovascular stimulation
 - C) Reduced skeletal muscle tone
 - D) Respiratory depression
 - E) Respiratory stimulation

Answer: A, B, E

Rationale: Clients administered the rapid-acting general anesthetic ketamine will exhibit profound analgesia, cardiovascular stimulation, respiratory stimulation, and enhanced skeletal muscle tone.

Question Format: Multiple Select

Chapter: 16

Learning Objective: 3

Cognitive Level: Apply

Client Needs: Physiological Integrity: Pharmacological Therapies

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

Reference: p. 211, Ketamine

26. To assist with the insertion of an endotracheal tube, the nurse would expect the client to receive which agent to facilitate its insertion? Select all that apply.
- A) Hydroxyzine
 - B) Glycopyrrolate
 - C) Cisatracurium
 - D) Succinylcholine
 - E) Meperidine

Answer: C, D

Rationale: Cisatracurium and succinylcholine are muscle relaxants used during general anesthesia to facilitate the insertion of an endotracheal tube. Vistarile is an antianxiety with antiemetic properties which is used as a preanesthetic agent. Glycopyrrolate is a cholinergic blocking agent and meperidine is an opioid agent.

Question Format: Multiple Select

Chapter: 16

Learning Objective: 3

Cognitive Level: Apply

Client Needs: Physiological Integrity: Pharmacological Therapies

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

Reference: p. 212, Table 16.2 Examples of Muscle Relaxants Used During General Anesthesia

27. A nursing student is preparing to assist in the OR. The mentor determines the student is prepared by correctly explaining which as stages of general anesthesia? Select all that apply.
- A) Stage I—delirium
 - B) Stage III—respiratory paralysis
 - C) Stage II—delirium
 - D) Stage IV—respiratory paralysis
 - E) Stage I—analgesia

Answer: C, D, E

Rationale: The stages of anesthesia are as follows: stage I—analgesia; stage II—delirium; stage III—surgical anesthesia; and stage IV—respiratory paralysis.

Question Format: Multiple Select

Chapter: 16

Learning Objective: 4

Cognitive Level: Understand

Client Needs: Physiological Integrity: Pharmacological Therapies

Integrated Process: Teaching/Learning

Reference: p. 210, Stages of General Anesthesia

28. A nurse is caring for clients in the PACU. Which nursing actions should the nurse prioritize? Select all that apply.
- A) Check airway patency and administering oxygen as needed.
 - B) Position the client to prevent aspiration of secretions.
 - C) Review the client's surgical and anesthesia records.
 - D) Check the client every 15 to 30 minutes for emergence from anesthesia.
 - E) Monitor the client's vital signs every 5 to 15 minutes.

Answer: A, B, C, E

Rationale: Checking airway patency, positioning the client to prevent aspiration of secretions, reviewing the client's surgical and anesthesia records, checking the client every 5 to 15 minutes for emergence from anesthesia, and checking the client's vital signs, IV lines, catheters, drainage tubes, surgical dressings, and casts represent the nurse's responsibilities to a client in the PACU.

Question Format: Multiple Select

Chapter: 16

Learning Objective: 5

Cognitive Level: Apply

Client Needs: Physiological Integrity: Reduction of Risk Potential
Integrated Process: Clinical Problem-solving Process (Nursing Process)
Reference: p. 212, Postanesthesia: Postanesthesia Care Unit