

Chapter 14, Nonopioid Analgesics: Nonsteroidal Anti-Inflammatory Drugs (NSAIDs) and Migraine Headache Medications

1. A nurse is performing discharge teaching for a client who is prescribed ibuprofen. After teaching the client about the possible cardiovascular effects of the drug, the nurse determines that additional teaching is needed when the client states which comment?
 - A) "My blood pressure may increase."
 - B) "My blood pressure won't change."
 - C) "I could develop congestive heart failure."
 - D) "I could experience a heart attack."

Answer: B

Rationale: The client should be counseled that NSAIDs including ibuprofen may result in the following cardiovascular effects: increased or decreased blood pressure, congestive heart failure, cardiac arrhythmias, and myocardial infarction.

Question Format: Multiple Choice

Chapter: 14

Learning Objective: 7

Cognitive Level: Apply

Client Needs: Physiological Integrity: Pharmacological Therapies

Integrated Process: Teaching/Learning

Reference: p. 177, Cardiovascular System Reactions

2. A nurse is preparing a presentation for a local community group about over-the-counter analgesics, including NSAIDs. Which possible reaction would the nurse integrate into the presentation as a serious risk with this class of drugs?
 - A) Increased granulocyte count
 - B) Cardiovascular thrombosis
 - C) Increased WBC count
 - D) Sickle cell anemia

Answer: B

Rationale: A serious risk involved with the use of NSAIDs is cardiovascular thrombosis. Increased granulocyte count, increased WBC count, or sickle cell anemia is not caused by NSAIDs. Sickle cell anemia results from an inherited abnormality of hemoglobin. NSAIDs may cause decreased granulocyte count, decreased WBC count, or aplastic anemia.

Question Format: Multiple Choice

Chapter: 14

Learning Objective: 4

Cognitive Level: Apply

Client Needs: Physiological Integrity: Pharmacological Therapies

Integrated Process: Teaching/Learning

Reference: p. 184, Key Points

3. A nurse is assessing the medical record of a client with arthritis who is to receive Celecoxib. The nurse would question this order based on which finding in the client's history?
- A) Allergy to sulfonamides
 - B) Diabetic retinopathy
 - C) Cataract
 - D) Acute gout

Answer: A

Rationale: Celecoxib is contraindicated among clients with allergy to sulfonamides. Ethambutol is contraindicated in clients with diabetic retinopathy and clients with cataracts. Pyrazinamide is contraindicated among clients with acute gout.

Question Format: Multiple Choice

Chapter: 14

Learning Objective: 5

Cognitive Level: Apply

Client Needs: Physiological Integrity: Pharmacological Therapies

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

Reference: p. 177, Contraindications

4. A nurse is providing care to a client with arthritis in several large weight-bearing joints who is receiving NSAID therapy. Which nursing diagnosis would be most appropriate?
- A) Risk for Unstable Blood Glucose Levels
 - B) Impaired Gas Exchange
 - C) Risk for Imbalanced Body Temperature
 - D) Impaired Physical Mobility

Answer: D

Rationale: The client has arthritis and is receiving NSAID therapy most likely for pain relief and reduction of inflammation. The affected joints would interfere with the client's mobility. Therefore, Impaired Physical Mobility would be most appropriate. There is no indication that the client has diabetes, respiratory problems, or fever. Therefore, the other nursing diagnoses would be inappropriate.

Question Format: Multiple Choice

Chapter: 14

Learning Objective: 6

Cognitive Level: Analyze

Client Needs: Physiological Integrity: Physiological Adaptation

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

Reference: p. 183, Impaired Physical Mobility

5. A nurse is preparing a discharge teaching for a client who is to continue taking NSAIDs at home. Which important point should the nurse prioritize in the teaching?
- A) Take aspirin if necessary strictly with a full glass of water.
 - B) Use the drug on a very regular basis during treatment.
 - C) Call your health care provider if you have no relief after 2 weeks.
 - D) Take the drugs strictly with a glass of milk or juice.

Answer: C

Rationale: The nurse should instruct the client to consult the primary health care provider if the pain, swelling, inflammation, or tenderness is not relieved after 2 weeks. The drug takes several days to relieve the discomfort, so it is important for the client to give the drug time to work. The nurse should instruct the client to avoid the use of aspirin. The drug should be taken with a full glass of water or with food. It is not necessary to take NSAIDs strictly with a glass of juice or milk. These drugs are not to be used on a regular basis unless the client is strictly instructed to do so by the primary health care provider.

Question Format: Multiple Choice

Chapter: 14

Learning Objective: 7

Cognitive Level: Apply

Client Needs: Physiological Integrity: Reduction of Risk Potential

Integrated Process: Teaching/Learning

Reference: p. 183, Educating the Client and Family

6. A nurse caring for a client who is receiving an NSAID for fever reduction documents a decrease in urinary output for the client. Which event would the nurse most likely determine as the reason for the client's condition?
- A) Prolonged immobility
 - B) Reduced intake of fibrous food
 - C) Intake of food with antacids
 - D) Prolonged temperature elevation

Answer: D

Rationale: If temperature elevation is prolonged while on NSAID therapy, hot, dry, flushed skin and a decrease in urinary output may develop; consequently, dehydration can occur. Prolonged immobility, reduced intake of fibrous food, and intake of food with antacids should not cause a decrease in urinary output.

Question Format: Multiple Choice

Chapter: 14

Learning Objective: 5

Cognitive Level: Understand

Client Needs: Physiological Integrity: Reduction of Risk Potential

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

Reference: p. 182, Ongoing Assessment

7. A client with controlled hypertension asks about using an over-the-counter NSAID for muscle aches. What is the best response from the nurse when describing the possible effect of mixing the two drugs?
- A) Can increase the metabolism of the antihypertensive drug
 - B) Can increase absorption of the antihypertensive drug
 - C) Can decrease the effectiveness of the antihypertensive drug
 - D) Can decrease the metabolism of NSAIDs

Answer: C

Rationale: The nurse should inform the client that taking an NSAID while on antihypertensive drug therapy decreases the effectiveness of antihypertensive drugs. Interactions of NSAIDs and antihypertensive drugs do not include increased metabolism of antihypertensive drugs, increased absorption of antihypertensive drugs, or decreased metabolism of NSAIDs.

Question Format: Multiple Choice

Chapter: 14

Learning Objective: 5

Cognitive Level: Understand

Client Needs: Physiological Integrity: Pharmacological Therapies

Integrated Process: Communication/Documentation

Reference: p. 178, Precautions

8. After teaching a client about the prescribed NSAID therapy, the nurse determines that the teaching was successful when the client states which comment?
- A) "I will take the drug with high-fiber foods."
 - B) "I need to take the drug on an empty stomach."
 - C) "I should take the drug with food and milk."
 - D) "I need to take it with a calcium supplement."

Answer: C

Rationale: The client should take the drug with food and milk to promote an optimal response to NSAID therapy; this helps minimize the risk of GI effects. The client does not need to take an NSAID with fiber-rich food or with calcium supplements. He should not take it on an empty stomach.

Question Format: Multiple Choice

Chapter: 14

Learning Objective: 7

Cognitive Level: Analyze

Client Needs: Physiological Integrity: Pharmacological Therapies

Integrated Process: Teaching/Learning

Reference: p. 182, Promoting an Optimal Response to Therapy

9. A 60-year-old client with rheumatoid arthritis reveals to the nurse the recent use of an OTC NSAID. The nurse should point out the client is at an increased risk for developing which disorder related to the use of NSAIDs?
- A) Ulcer disease
 - B) CNS disorders

- C) Hearing impairment
- D) Blindness

Answer: A

Rationale: Age appears to increase the possibility of adverse reactions to NSAIDs. The risk of serious ulcer disease in adults older than 65 years is increased with higher doses of NSAIDs. CNS disorders, hearing impairment, and blindness are not effects associated with using NSAIDs on a long-term basis in older clients.

Question Format: Multiple Choice

Chapter: 14

Learning Objective: 3

Cognitive Level: Apply

Client Needs: Physiological Integrity: Pharmacological Therapies

Integrated Process: Teaching/Learning

Reference: p. 183, Pain

10. A nurse is preparing to present information about ibuprofen at a community health promotion conference. Which actions will the nurse illustrate during the presentation? Select all that apply.
- A) Anti-inflammatory
 - B) Analgesic
 - C) Antipruritic
 - D) Antipyretic
 - E) Antibacterial

Answer: A, B, D

Rationale: Like the salicylates, the NSAIDs have anti-inflammatory, antipyretic, and analgesic effects. They do not exert antipruritic or antibacterial properties.

Question Format: Multiple Select

Chapter: 14

Learning Objective: 3

Cognitive Level: Apply

Client Needs: Physiological Integrity: Pharmacological Therapies

Integrated Process: Teaching/Learning

Reference: p. 176, Actions

11. A nursing instructor determines a class on NSAIDs is successful when the students correctly choose which drugs? Select all that apply.
- A) Eletriptan
 - B) Aspirin
 - C) Meloxicam
 - D) Acetaminophen
 - E) Ibuprofen

Answer: C, E

Rationale: Ibuprofen and meloxicam are both classified as NSAIDs. Aspirin is a salicylate, acetaminophen is a nonsalicylate, and eletriptan is a serotonin receptor agonist.

Question Format: Multiple Select

Chapter: 14

Learning Objective: 3

Cognitive Level: Analyze

Client Needs: Physiological Integrity: Pharmacological Therapies

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

Reference: p. 185, Summary Drug Table

12. A nurse is explaining the actions of NSAIDs to a client. Which factor would the nurse integrate into the description as a mechanism by which NSAIDs elicit their effects? Select all that apply.
- A) Inhibition of prostaglandins
 - B) Inhibition of cyclooxygenase-1
 - C) Synthesis of cyclooxygenase-2
 - D) Synthesis of cyclooxygenase-3
 - E) Inhibition of platelet aggregation

Answer: A, B, C

Rationale: NSAIDs exert their effects by inhibition of prostaglandin synthesis via inhibition of cyclooxygenase-1 and -2. The synthesis of cyclooxygenase-3 is not fully understood at the present. Aspirin is responsible for the inhibition of platelet aggregation.

Question Format: Multiple Select

Chapter: 14

Learning Objective: 3

Cognitive Level: Understand

Client Needs: Physiological Integrity: Pharmacological Therapies

Integrated Process: Teaching/Learning

Reference: p. 176, Actions

13. A nurse caring for several clients with various disorders anticipates administering NSAIDs to which ones for reports of pain? Select all that apply.
- A) Osteoarthritis
 - B) Fever
 - C) Rheumatoid arthritis
 - D) Severe postoperative pain
 - E) Primary dysmenorrhea

Answer: A, B, C, E

Rationale: NSAIDs are used to treat fever and the mild to moderate pain that may be associated with osteoarthritis, rheumatoid arthritis, and primary dysmenorrhea. Severe postoperative pain would most likely require an opioid analgesic.

Question Format: Multiple Select

Chapter: 14

Learning Objective: 3

Cognitive Level: Apply

Client Needs: Physiological Integrity: Pharmacological Therapies

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

Reference: p. 177, Uses

14. A nurse is providing care to a client who is receiving NSAIDs. The nurse would be especially alert for which assessment finding? Select all that apply.
- A) Oliguria
 - B) Dysuria
 - C) Hematuria
 - D) Glucosuria
 - E) Polyuria

Question Format: Multiple Select

Chapter: 14

Learning Objective: 3

Cognitive Level: Apply

Client Needs: Physiological Integrity: Pharmacological Therapies

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

Reference: p. 177, Renal System Reactions

15. A nurse informs a client who is prescribed meloxicam that he might experience visual disturbances. When asked what type might occur, the nurse would include which types in the response? Select all that apply.
- A) Double vision
 - B) Irreversible loss of color vision
 - C) Sensitivity to light
 - D) Blurred vision
 - E) Halos around objects

Answer: A, C, D

Rationale: The nurse should tell the client that NSAIDs like meloxicam can cause visual disturbances including blurred or diminished vision, double vision, swollen or irritated eyes, photophobia, and reversible loss of color vision.

Question Format: Multiple Select

Chapter: 14

Learning Objective: 3

Cognitive Level: Apply

Client Needs: Physiological Integrity: Pharmacological Therapies

Integrated Process: Teaching/Learning

Reference: p. 177, Sensory and Other Reactions

16. After teaching a group of students about NSAIDs and their uses, the instructor determines that additional teaching is needed when the students choose which drug as being used to treat osteoarthritis or rheumatoid arthritis? Select all that apply.

- A) Sulindac
- B) Ketorolac
- C) Piroxicam
- D) Mefenamic
- E) Oxaprozin

Answer: B, D

Rationale: Ketorolac and mefenamic are NSAIDs that are not used to treat osteoarthritis or rheumatoid arthritis. Sulindac, piroxicam, and oxaprozin can be used for rheumatoid arthritis and osteoarthritis.

Question Format: Multiple Select

Chapter: 14

Learning Objective: 3

Cognitive Level: Analyze

Client Needs: Physiological Integrity: Pharmacological Therapies

Integrated Process: Teaching/Learning

Reference: p. 177, Contraindications

17. A nurse is assessing the medical records of several female clients. With which clients would the nurse question the use of an NSAID? Select all that apply.
- A) Lactating
 - B) Hypersensitivity to aspirin
 - C) First trimester of pregnancy
 - D) Second trimester of pregnancy
 - E) Third trimester of pregnancy

Answer: A, B, E

Rationale: NSAIDs are contraindicated in clients with a hypersensitivity to aspirin. In general, NSAIDs are contraindicated during the third trimester of pregnancy (because they can induce labor) and during lactation.

Question Format: Multiple Select

Chapter: 14

Learning Objective: 3

Cognitive Level: Apply

Client Needs: Physiological Integrity: Pharmacological Therapies

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

Reference: p. 177, Contraindications

18. A nurse is teaching a client who is prescribed sumatriptan about the possible adverse reactions associated with the drug. The nurse determines that the teaching was successful when the client correctly chooses which as most common? Select all that apply.
- A) Flushing
 - B) Bradycardia
 - C) Dry mouth
 - D) Impaired vision
 - E) Fatigue

Answer: A, C, E

Rationale: The most common adverse reactions associated with the selective serotonin agonists like sumatriptan include dizziness, nausea, fatigue, pain, dry mouth, and flushing.

Question Format: Multiple Select

Chapter: 14

Learning Objective: 4

Cognitive Level: Understand

Client Needs: Physiological Integrity: Pharmacological Therapies

Integrated Process: Teaching/Learning

Reference: p. 179, Drugs Used in the Treatment of Migraine Headaches

19. A client with a history of migraine headaches is prescribed almotriptan. Which actions would a nurse integrate into the explanation for a client about the mechanism of action? Select all that apply.
- A) Vasoconstriction
 - B) Vasodilation
 - C) Decreased neurotransmission
 - D) Increased neurotransmission
 - E) Inhibition of prostaglandin synthesis

Answer: A, C

Rationale: Selective serotonin agonists like almotriptan exert their effects by causing vasoconstriction and decreased neurotransmission.

Question Format: Multiple Select

Chapter: 14

Learning Objective: 4

Cognitive Level: Apply

Client Needs: Physiological Integrity: Pharmacological Therapies

Integrated Process: Teaching/Learning

Reference: p. 179, Actions and Uses

20. The nurse would question an order for a selective serotonin agonist as treatment for a migraine headache for a client with which condition? Select all that apply.
- A) Diabetes
 - B) Uncontrolled hypertension
 - C) Angina
 - D) Hyperlipidemia
 - E) Transient ischemic attacks

Answer: B, C, E

Rationale: 5-HT agonists should not be used in clients with ischemic heart disease (such as angina or myocardial infarction), transient ischemic attacks (TIA), uncontrolled hypertension, or those clients taking monoamine oxidase inhibitor (MAOI) antidepressants.

Question Format: Multiple Select

Chapter: 14

Learning Objective: 4

Cognitive Level: Apply

Client Needs: Physiological Integrity: Reduction of Risk Potential

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

Reference: p. 179, Contraindications and Precautions

21. Prior to administering an NSAID to a client, the nurse should appraise what information? Select all that apply.
- A) History of allergies
 - B) Pain assessment
 - C) Current medical conditions
 - D) Past medical conditions
 - E) Vital signs

Answer: A, B, C, D, E

Rationale: Before administering an NSAID, the nurse should obtain a history of allergies and past medical conditions. Other preadministration assessment includes pain, current medical conditions, and vital signs.

Question Format: Multiple Select

Chapter: 14

Learning Objective: 5

Cognitive Level: Apply

Client Needs: Physiological Integrity: Pharmacological Therapies

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

Reference: p. 181, Preadministration Assessment

22. A client is prescribed tolmetin to be taken at home. The nurse would instruct the client to monitor for which potential adverse reactions? Select all that apply.
- A) Dark, tarry stools
 - B) Jaundice
 - C) Hot, dry, flushed skin
 - D) Increased urine output
 - E) Unusual or prolonged bleeding

Answer: A, C, E

Rationale: The nurse should instruct the client or caregiver to monitor for dark, tarry stools; hot, dry, flushed skin; decreased urine output; and unusual or prolonged bleeding.

Question Format: Multiple Select

Chapter: 14

Learning Objective: 7

Cognitive Level: Apply

Client Needs: Physiological Integrity: Reduction of Risk Potential

Integrated Process: Teaching/Learning

Reference: p. 182, Ongoing Assessment

23. A client who is receiving ibuprofen asks the nurse, "What should I take the drug with?" What would the nurse suggest in the response? Select all that apply.
- A) Milk
 - B) Orange juice
 - C) Food
 - D) Clear liquids
 - E) Antacids

Answer: A, C, E

Rationale: The nurse should advise the client to take ibuprofen with food, milk, or antacids.

Question Format: Multiple Select

Chapter: 14

Learning Objective: 7

Cognitive Level: Apply

Client Needs: Physiological Integrity: Reduction of Risk Potential

Integrated Process: Teaching/Learning

Reference: p. 182, Promoting an Optimal Response to Therapy

24. The nurse is assessing the record of a client with migraine headaches and phenylketonuria. The nurse would question the order for which drug if prescribed? Select all that apply.
- A) Rizatriptan
 - B) Almotriptan
 - C) Eletriptan
 - D) Sumatriptan
 - E) Zolmitriptan

Answer: A, E

Rationale: Rizatriptan and zolmitriptan are not used as treatment for migraines in a client with phenylketonuria because both medications contain phenylalanine. Almotriptan, eletriptan, or sumatriptan would be safer choices as they do not contain phenylalanine.

Question Format: Multiple Select

Chapter: 14

Learning Objective: 4

Cognitive Level: Apply

Client Needs: Physiological Integrity: Pharmacological Therapies

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

Reference: p. 182, Chronic Care Considerations

25. A nursing instructor is preparing a class discussion on the use of NSAIDs and interactions with other drugs. The instructor would emphasize that the effects of which drugs can increase with NSAID therapy? Select all that apply.
- A) Lithium
 - B) Cyclosporine
 - C) Furosemide
 - D) Lisinopril
 - E) Hydantoins

Answer: A, B, E

Rationale: The use of NSAIDs can increase the effectiveness of lithium, cyclosporine, and hydantoins, possibly leading to toxicity.

Question Format: Multiple Select

Chapter: 14

Learning Objective: 3

Cognitive Level: Apply

Client Needs: Physiological Integrity: Reduction of Risk Potential

Integrated Process: Teaching/Learning

Reference: p. 178, Precautions

26. After teaching a client receiving NSAID therapy about the drug, the nurse determines that the teaching was successful when the client explains the need to notify the primary health care provider for which reaction? Select all that apply.
- A) Skin rash
 - B) Visual disturbances
 - C) Edema
 - D) Chest pain
 - E) Diarrhea

Answer: A, B, C, D, E

Rationale: The client should notify the primary health care provider if any of the following adverse reactions occur: skin rash, itching, visual disturbances, weight gain, edema, diarrhea, black stools, nausea, vomiting, chest or leg pain, numbness, or persistent headache.

Question Format: Multiple Select

Chapter: 14

Learning Objective: 7

Cognitive Level: Analyze

Client Needs: Physiological Integrity: Pharmacological Therapies

Integrated Process: Teaching/Learning

Reference: p. 183, Educating the Client and Family

27. A client is prescribed frovatriptan. Which of the following would the nurse expect to include in the client's teaching plan? Select all that apply.
- A) Used to prevent migraines
 - B) Should be administered at the earliest onset of migraine symptoms
 - C) Will decrease the number of migraine headaches experienced

- D) No more than three doses of the drug in a 24-hour period
- E) Repeat the dose every hour until symptoms subside

Answer: B, D

Rationale: Frovatriptan does not prevent migraines or reduce the number of migraines. A dose of 2.5 mg should be taken at the earliest onset of migraine symptoms and the dose may be repeated in 2 hours if no relief is obtained. The client should never take more than three doses of frovatriptan (not to exceed 7.5 mg) in a 24-hour period.

Question Format: Multiple Select

Chapter: 14

Learning Objective: 7

Cognitive Level: Apply

Client Needs: Physiological Integrity: Reduction of Risk Potential

Integrated Process: Teaching/Learning

Reference: p. 186, Summary Drug Table

28. When teaching effective pain management to a group of nursing students, the instructor would include which barriers that need to be overcome? Select all that apply.
- A) Pharmacists do not provide an adequate supply of pain medication.
 - B) Primary health care providers prescribe improper pain medicine doses.
 - C) Nurses do not administer adequate medication for pain relief.
 - D) Clients do not report accurate levels of pain.
 - E) Clients have misperceptions about receiving pain medication.

Answer: B, C, D

Rationale: The main barriers a nurse must overcome to obtain effective pain management in a client are primary health care providers who do not prescribe proper pain medicine doses, nurses who do not administer adequate medication for pain relief, and clients who do not report accurate levels of pain.

Question Format: Multiple Select

Chapter: 14

Learning Objective: 1

Cognitive Level: Apply

Client Needs: Physiological Integrity: Reduction of Risk Potential

Integrated Process: Teaching/Learning

Reference: p. 175, Barriers to Assessment and Treatment

29. A nurse is assessing a client's pain. When reporting the assessment findings to the primary health care provider which details would be most important for the nurse to report? Select all that apply.
- A) Duration
 - B) Aggravating factors
 - C) Location
 - D) Remitting factors
 - E) Intensity

Answer: C, E

Rationale: Although duration, aggravating and remitting factors, location, and intensity are important to assess, to ensure that the primary health care provider prescribes effective analgesics for pain management, the nurse needs to report two key assessments about pain location and intensity.

Question Format: Multiple Select

Chapter: 14

Learning Objective: 1

Cognitive Level: Apply

Client Needs: Physiological Integrity: Reduction of Risk Potential

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

Reference: p. 175, Assessment Technique

30. A nurse is assessing pain in a 3-year-old child. Which of the following would be most appropriate for the nurse to use? Select all that apply.
- A) Number scale
 - B) Color scale
 - C) Letter scale
 - D) Facial expression scale
 - E) Shape scale

Answer: B, D

Rationale: Color and facial expression scales are especially helpful with children who have trouble understanding or cannot tell the nurse about their pain using numbers.

Question Format: Multiple Select

Chapter: 14

Learning Objective: 2

Cognitive Level: Apply

Client Needs: Physiological Integrity: Basic Care and Comfort

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

Reference: p. 181, Preadministration Assessment