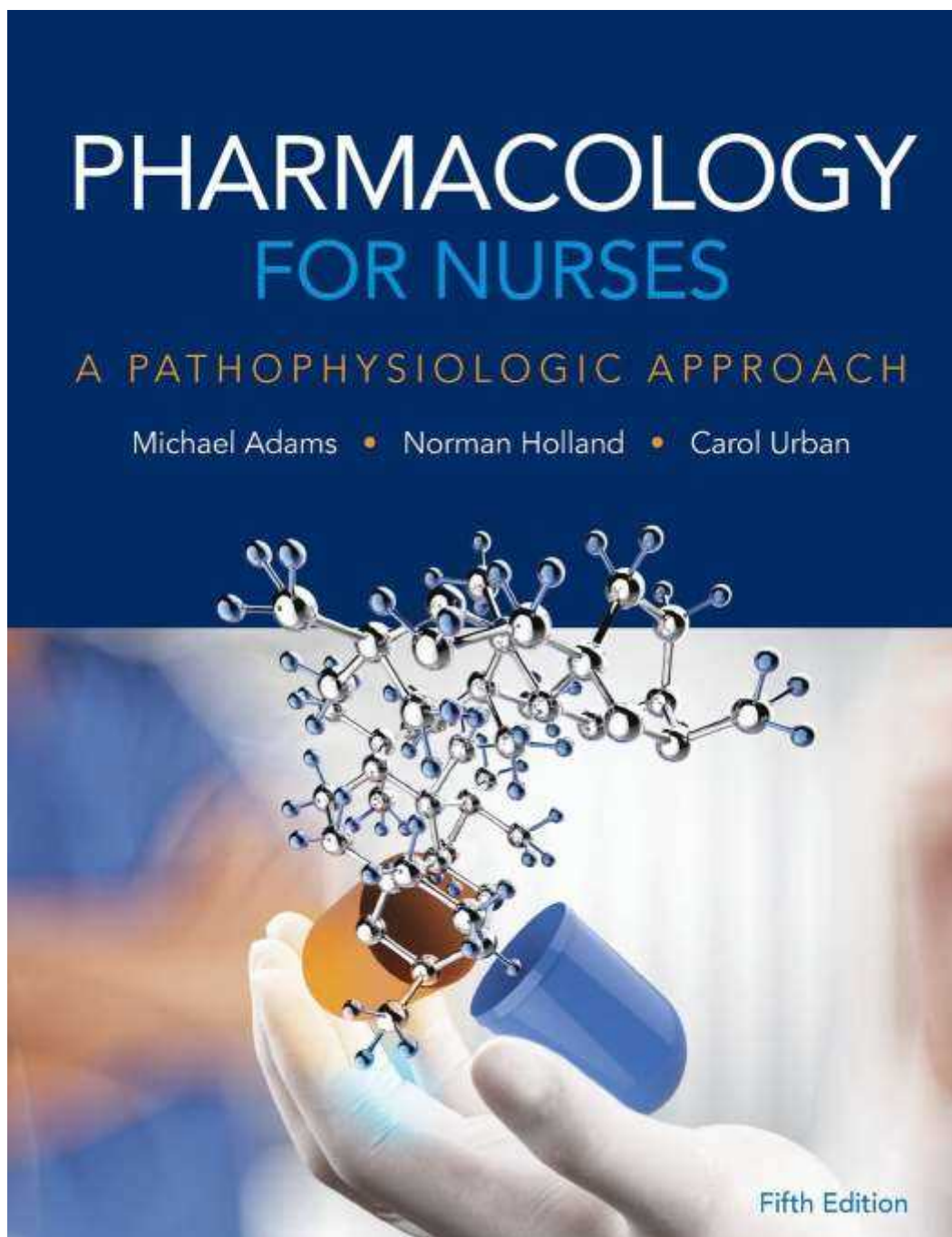# TEST BANK

Pharmacology for Nurses

A Pathophysiologic Approach

Michael Adams, Norman Holland, Carol Urban

5th Edition

Adams, *Pharmacology for Nurses: A Pathophysiologic Approach*, 5/E Chapter 1

Question 1
Type:
MCMA

The nurse is teaching a pharmacology class to student nurses. What does the nurse include as key events in the history of pharmacology?

Note: Credit will be given only if all correct choices and no incorrect choices are selected.

Standard Text: Select all that apply.

1. Initial drugs included morphine, cocaine, and penicillin.

2. Early researchers used themselves as test subjects.

3. The initial intention of pharmacology was to relieve human suffering.

4. Modern pharmacology began in the early 1600s.

5. Pharmacologists synthesized drugs in the laboratory in the twentieth century.

Correct Answer: 2,3,5

Rationale 1: Initial drugs isolated from complex mixtures included morphine, colchicines, curare, and cocaine, but not penicillin.

Rationale 2: Some early researchers, such as Friedrich Serturner, used themselves as test subjects.

Rationale 3: The early roots of pharmacology included the application of products to relieve human suffering.

Rationale 4: Modern pharmacology began in the early 1800s, not the 1600s.

Rationale 5: By the twentieth century, pharmacologists could synthesize drugs in the laboratory.

Global Rationale: The early roots of pharmacology included the application of products to relieve human suffering, and early researchers used themselves as test subjects. Initial drugs included morphine, colchicines, curare, and cocaine, but not penicillin. Modern pharmacology began in the early 1800s, not the 1600s. By the twentieth century, pharmacologists could synthesize drugs in the laboratory.

Cognitive Level: Applying
Client Need: Physiological Integrity
Client Need Sub: Pharmacological and Parenteral Therapies
QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient centered care: patient/family/community preferences, values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; and transition and community.

AACN Essential Competencies: I.7 Integrate the knowledge and methods of a variety of disciplines to inform decision making.
NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. **Nursing/Integrated Concepts:** Nursing Process: Implementation
Learning Outcome: 1-1 Identify key events in the history of pharmacology.
MNL Learning Outcome: 1.1.1 Apply basic concepts related to pharmacology. **Page Number: 3**

Question 2
Type:
MCSA

The student nurse asks the nursing instructor why he needs to take anatomy and physiology, as well as microbiology, when he only wants to learn about pharmacology. What is the best response by the instructor?

1. "Because pharmacology is an outgrowth of those subjects."

2. "You must learn all, since those subjects, as well as pharmacology, are part of the curriculum."

3. "Knowledge of all those subjects will prepare you to provide the best patient care, including the administration of medications."

4. "Because an understanding of those subjects is essential to understanding pharmacology."

Correct Answer: 4

Rationale 1: Pharmacology is an outgrowth of anatomy, physiology, and microbiology, but this is not the most complete reason for the nurse to learn them.

Rationale 2: The nurse must learn anatomy, physiology, and microbiology to understand pharmacology, not because they are part of the curriculum.

Rationale 3: Knowledge of anatomy, physiology, and microbiology prepares the nurse to understand pharmacology, not to provide care such as administration of medications.

Rationale 4: It is essential for the nurse to have a broad knowledge base of many sciences in order to learn pharmacology.

Global Rationale: It is essential for the nurse to have a broad knowledge base of many sciences in order to learn pharmacology. The nurse must learn anatomy, physiology, and microbiology to understand pharmacology, not because they are part of the curriculum. Pharmacology is an outgrowth of anatomy, physiology, and microbiology, but this is not the reason for the nurse to learn them. Knowledge of anatomy, physiology, and microbiology prepares the nurse to understand pharmacology, not to provide care such as administration of medications.

Cognitive Level: Applying
Client Need: Physiological Integrity
Client Need Sub: Pharmacological and Parenteral Therapies

QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient centered care: patient/family/community preferences, values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; and transition and community.
AACN Essential Competencies: I.7 Integrate the knowledge and methods of a variety of disciplines to inform decision making.
NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. **Nursing/Integrated Concepts:** Nursing Process: Implementation
Learning Outcome: 1-2 Explain the interdisciplinary nature of pharmacology, giving an example of how knowledge from different sciences impacts the nurse's role in drug administration.
MNL Learning Outcome: 1.1.1 Apply basic concepts related to pharmacology. **Page Number:** 3

Question 3
Type:
MCMA

The nursing instructor is teaching a pharmacology class to student nurses. The current focus is pharmacology and therapeutics. The nursing instructor determines that learning has occurred when the students make which comments?

Note: Credit will be given only if all correct choices and no incorrect choices are selected.

Standard Text: Select all that apply.

1. "Pharmacology is the development of medicines."

2. "Pharmacology is the study of medicines."

3. "Therapeutics relates to drug use to treat suffering."

4. "Therapeutics is the study of drug interactions."

5. "Pharmacology is the study of drugs to prevent disease."

Correct Answer: 2,3,5

Rationale 1: Pharmacology is not the development of medicines

Rationale 2: Pharmacology is the study of medicines.

Rationale 3: Therapeutics is the use of drugs in the treatment of suffering.

Rationale 4: Therapeutics is not related to study of drug interactions.

Rationale 5: Pharmacotherapy is the application of drugs for the purpose of disease prevention.

Global Rationale: Pharmacology is the study of medicines and the use of drugs to relieve suffering. Therapeutics is the study of disease prevention and treatment of suffering. Pharmacotherapy is the application of drugs for the purpose of disease prevention.

Cognitive Level: Applying
Client Need: Physiological Integrity
Client Need Sub: Pharmacological and Parenteral Therapies
QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient centered care: patient/family/community preferences, values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; and transition and community.
AACN Essential Competencies: I.7 Integrate the knowledge and methods of a variety of disciplines to inform decision making.
NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. **Nursing/Integrated Concepts:** Nursing Process: Evaluation
Learning Outcome: 1-3 Compare and contrast therapeutics and pharmacology.
MNL Learning Outcome: 1.1.1 Apply basic concepts related to pharmacology. **Page Number:** 4

Question 4
Type:
MCSA

The nurse administers a vaccine to a child. What is the best understanding of the nurse as it relates to the manufacture of this vaccine?

1. The vaccine is produced by natural plant extracts in the laboratory.

2. The vaccine is naturally produced in animal cells or microorganisms.

3. The vaccine is produced by a combination of animal and plant products.

4. The vaccine is most commonly synthesized in a laboratory.

Correct Answer: 2

Rationale 1: Vaccines are not produced by natural plant extracts.

Rationale 2: Vaccines are naturally produced in animal cells, microorganisms, or by the body itself.

Rationale 3: Vaccines are not produced by a combination of animal and plant products.

Rationale 4: Vaccines are not synthesized in a laboratory.

Global Rationale: Vaccines are naturally produced in animal cells, microorganisms, or by the body itself. Vaccines are not synthesized in a laboratory. Vaccines are not produced by natural plant extracts. Vaccines are not produced by a combination of animal and plant products.

Cognitive Level: Applying
Client Need: Physiological Integrity
Client Need Sub: Pharmacological and Parenteral Therapies
QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes.
AACN Essential Competencies: IX.3 Implement holistic, patient-centered care that reflects an understanding of human growth and development, pathophysiology, pharmacology, medical management and nursing management across the health-illness continuum, across lifespan, and in all healthcare settings.
NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. **Nursing/Integrated Concepts:** Nursing Process: Evaluation
Learning Outcome: 1-4 Compare and contrast traditional drugs, biologics, and complementary and alternative medicine therapies.
MNL Learning Outcome: 1.1.1 Apply basic concepts related to pharmacology. **Page Number:** 4

Question 5
Type:
MCSA

The older adult client has gastrointestinal bleeding. The client says to the nurse, "I don't understand this. All I did was take ibuprofen (Advil) for my arthritis." Which plan would be best as it relates to the nurse's education of this client?

1. A plan to teach the client to use drugs that bypass the gastrointestinal system, like topical drugs

2. A plan to teach the client to substitute safer drugs like acetaminophen (Tylenol)

3. A plan to teach the client to obtain physician approval prior to the use of over-the-counter (OTC) medications

4. A plan to teach the advantages and disadvantages of ibuprofen (Advil)

Correct Answer: 4

Rationale 1: The use of topical drugs may be an option, but the drug a client needs may not be available in this form.

Rationale 2: Substitution of other drugs may be beneficial, but this cannot be done in all situations.

Rationale 3: It is not a realistic plan to expect clients to contact their physician prior to taking any over-the-counter (OTC) medication.

Rationale 4: Since elderly clients account for the use of about 40% of all over-the-counter (OTC) medications, it is essential for the nurse to teach clients about the advantages, and the disadvantages, of these medications.

Global Rationale: Since older adult clients account for the use of about 40% of all over-the-counter (OTC) medications, it is essential for the nurse to teach clients about the advantages, and the disadvantages, of these medications. Substitution of other drugs may be beneficial, but this cannot be done in all situations. The use of topical drugs may be an option, but the drug a client needs may not be available in this form. It is not a realistic plan to expect clients to contact their physician prior to taking any over-the-counter (OTC) medication.

Cognitive Level: Applying
Client Need: Physiological Integrity
Client Need Sub: Pharmacological and Parenteral Therapies
QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. **AACN Essential Competencies:** II.7 Promote factors that create a culture of safety and caring. **NLN Competencies:** Context and Environment: Health promotion/disease prevention. **Nursing/Integrated Concepts:** Nursing Process: Planning
Learning Outcome: 1-9 Outline the major differences between prescription and over-the-counter drugs.
MNL Learning Outcome: 1.1.1 Apply basic concepts related to pharmacology.
Page Number: 6

Question 6
Type:
MCSA

The nursing instructor teaches the student nurses about the pharmacological classification of drugs. The instructor evaluates that learning has occurred when the students make which response?

1. "An anti-anginal treats angina."

2. "A calcium channel blocker blocks heart calcium channels."

3. "An antihypertensive lowers blood pressure."

4. "An anticoagulant influences blood clotting."

Correct Answer: 2

Rationale 1: To say that a drug treats angina addresses the therapeutic usefulness of the drug, not the pharmacological classification.

Rationale 2: The pharmacological classification addresses a drug's mechanism of action, or how a drug produces its effect in the body.

Rationale 3: To say that a drug lowers blood pressure addresses the therapeutic usefulness of the drug, not the pharmacological classification.

Rationale 4: To say that a drug influences blood clotting addresses the therapeutic usefulness of the drug, not the pharmacological classification.

Global Rationale: The pharmacological classification addresses a drug's mechanism of action, or how a drug produces its effect in the body. To say that a drug influences blood clotting addresses the therapeutic usefulness of the drug, not the pharmacological classification. To say that a drug treats angina addresses the therapeutic usefulness of the drug, not the pharmacological classification. To say that a drug lowers blood pressure addresses the therapeutic usefulness of the drug, not the pharmacological classification.

Cognitive Level: Applying
Client Need: Physiological Integrity

Client Need Sub: Pharmacological and Parenteral Therapies
QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes.
AACN Essential Competencies: I.7 Integrate the knowledge and methods of a variety of disciplines to inform decision making.
NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. **Nursing/Integrated Concepts:** Nursing Process: Evaluation
Learning Outcome: 1-5 Explain the basis for placing drugs into therapeutic and pharmacologic class. **MNL Learning Outcome:** 1.1.1 Apply basic concepts related to pharmacology.
Page Number: 5

Question 7
Type:
MCSA

The nurse is providing medication education to a client with hypertension. The nurse teaches the client that the physician ordered a diuretic to decrease the amount of fluid in the client's body. Which statement best describes the nurse's instruction?

1. The nurse provided appropriate medication education.

2. The nurse explained the drug's mechanism of action.

3. The nurse taught the client about a prototype drug.

4. The nurse explained the consequences of not using the drug.

Correct Answer: 2

Rationale 1: The education was most likely appropriate, but this response is too vague.

Rationale 2: A drug's mechanism of action explains how a drug produces its effect in the body.

Rationale 3: There is no drug name present, so it is not known whether this is a prototype drug.

Rationale 4: The nurse did not explain the consequences of not using the drug.

Global Rationale: A drug's mechanism of action explains how a drug produces its effect in the body. The nurse did not explain the consequences of not using the drug. There is no drug name present, so it is not known whether this is a prototype drug. The education was most likely appropriate, but this response is too vague.

Cognitive Level: Applying
Client Need: Physiological Integrity
Client Need Sub: Pharmacological and Parenteral Therapies
QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes.
AACN Essential Competencies: I.7 Integrate the knowledge and methods of a variety of disciplines to inform decision making.
NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines.

Nursing/Integrated Concepts: Nursing Process: Evaluation
Learning Outcome: 1-7 Describe what is meant by a drug's mechanism of action. **MNL Learning Outcome:** 1.1.1 Apply basic concepts related to pharmacology. **Page Number:** 5

Question 8
Type:
MCSA

During pharmacology class, the student nurse asks the nursing instructor how students will ever learn about the individual antibiotic drugs since there are so many. What is the best response by the nursing instructor?

1. "You will learn a little trick called mnemonics."

2. "You will learn how to do a flow chart to enhance memory."

3. "You will learn how to categorize the individual drugs."

4. "You will learn a representative drug from each class."

Correct Answer: 4

Rationale 1: Using mnemonics is not the best way to learn about drugs.

Rationale 2: Flow charts are not the best way to learn about drugs.

Rationale 3: Categorizing individual drugs is not the best way to learn about drugs.

Rationale 4: A prototype, or representative, drug is the well-understood drug model from which other drugs in a pharmacological class are compared.

Global Rationale: A prototype, or representative, drug is the well-understood drug model from which other drugs in a pharmacological class are compared. Categorizing individual drugs is not the best way to learn about drugs. Using mnemonics is not the best way to learn about drugs. Flow charts are not the best way to learn about drugs.

Cognitive Level: Applying
Client Need: Physiological Integrity
Client Need Sub: Pharmacological and Parenteral Therapies
QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes.
AACN Essential Competencies: I.7 Integrate the knowledge and methods of a variety of disciplines to inform decision making.
NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. **Nursing/Integrated Concepts:** Nursing Process: Implementation
Learning Outcome: 1-6 Discuss the prototype approach to drug classification.
MNL Learning Outcome: 1.1.1 Apply basic concepts related to pharmacology. **Page Number:** 5

Question 9

Type: MCSA

The physician ordered a brand name drug for the client, paroxetine (Paxil). After taking this medication for a year, the client tells the nurse that it is no longer working. What is the best assessment of the nurse at this time?

1. "This sounds like your medication needs changing."

2. "Let's look for interactions with other medications you are taking."

3. "Are you taking Paxil or paroxetine?"

4. "It is time for us to do the Beck Depression assessment again."

Correct Answer: 3

Rationale 1: Considering a change in medication is appropriate, but another assessment takes priority.

Rationale 2: Assessing for interactions with other drugs is appropriate, but another assessment takes priority.

Rationale 3: The bioavailability of a generic drug may not be the same as the bioavailability of a brand name drug.

Rationale 4: Assessing for worsening of depression is appropriate, but another assessment takes priority.

Global Rationale: The bioavailability of a generic drug may not be the same as the bioavailability of a brand name drug. Assessing for worsening of depression is appropriate, but the nurse should first assess if the client has changed to a generic form of the drug. Assessing for interactions with other drugs is appropriate, but the nurse should first assess if the client has changed to a generic form of the drug. Considering a change in medication is appropriate, but the nurse should first assess if the client has changed to a generic form of the drug.

Cognitive Level: Applying
Client Need: Physiological Integrity
Client Need Sub: Pharmacological and Parenteral Therapies
QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes.
AACN Essential Competencies: I.7 Integrate the knowledge and methods of a variety of disciplines to inform decision making.
NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. **Nursing/Integrated Concepts:** Nursing Process: Assessment
Learning Outcome: 1-10 Explain the differences between trade-name drugs and their generic equivalents.
MNL Learning Outcome: 1.1.1 Apply basic concepts related to pharmacology.
Page Number: 7

Question 10
Type:
MCSA

The student nurse has completed an initial pharmacology course and tells the nursing instructor that it was difficult and she is glad it is over. What is the best response by the nursing instructor?