

Chapter 1

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.
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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."
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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."
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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.
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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)
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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."
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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.
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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."
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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."
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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?

1. "It may be over, but now you must apply what you have learned to patient care."
 2. "Learning is gradual and continuous; we never completely master all areas of pharmacology."
 3. "Learning is always painful, but we must continue anyway."
 4. "It really isn't over; you should take a graduate course next."
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The client says to the nurse, "My wife and I take the same drug, but we have different side effects. Are we doing something wrong?" What is the best response by the nurse?

1. "No. Differences such as your sex can result in different side effects."
 2. "I'll have to check. What is the name of the drug you were using?"
 3. "Possibly. This could happen if one uses generic or brand name drugs."
 4. "I'm not sure. Maybe the drug is not the same; you should check it."
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The client comes to the emergency department with a myocardial infarction. The client's husband tells the nurse that his wife has been taking calcium carbonate (Tums) for years for what she thought was indigestion. What is the best response by the nurse?

1. "Your wife should not have self-diagnosed herself. I hope she will be okay."
 2. "Why did you let her do that? She should have seen a doctor."
 3. "Well, I am glad she is here, as it certainly wasn't indigestion."
 4. "Your wife was self-diagnosing, which is generally not a good idea."
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The nurse is teaching a class for clients about over-the-counter (OTC) medications. The nurse determines that education has been effective when the clients make which statement?

1. "We should not take any over-the-counter (OTC) medicine without first calling and checking with the doctor's office."
 2. "We should always ask the pharmacist about how to take the over-the-counter (OTC) medicine."
 3. "We must read all the directions on the label and call the doctor's office if they are not clear."
 4. "Medicines that are available over-the-counter (OTC) are really safe, or they would be prescription medicines."
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The physician has prescribed a brand name drug for the client. The client tells the nurse that the medication is too expensive. What is the best plan by the nurse?

1. Help the client receive free medicine through a "patient assistance" program.
 2. Ask the physician if a cheaper brand name drug may be substituted.
 3. Ask the physician if a generic drug may be substituted.
 4. Maintain the client on samples of the brand name drug from the physician's office.
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The client is receiving a very expensive medication. The client asks the nurse why the medicine is so expensive. What is the best response by the nurse?

1. "It is expensive, but your insurance covers it and you have a low co-pay."
 2. "Drug companies are allowed to advertise medications and this adds to the cost."
 3. "Drug companies must recoup the cost of developing and producing the drug."
 4. "I think the drug companies should be more accountable for lowering costs."
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Modern pharmacology was introduced to the United States by the opening of the first department of pharmacology at the University of Michigan in which year?

1. 1805
 2. 1890
 3. 1847
 4. 1908
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The application of drugs for the purpose of treating diseases and treatment of suffering is known as

1. biologics.
 2. pharmacotherapeutics.
 3. alternative therapies.
 4. therapeutics.
-

A client with chronic back pain informs the nurse he has been receiving therapeutic touch in addition to his medications. What is the nurse's best classification of this client's treatment?

1. pharmacotherapy.
 2. drug-absence therapy
 3. complementary therapy
 4. biologic therapy
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The client is receiving a brand name drug and wants to change to the generic form because it is cheaper. What is the best outcome for this client?

1. Client will state two ways a brand name drug differs from a generic name drug.
 2. Client will take the brand name drug after speaking with the physician.
 3. Client will ask the nurse why brand name drugs are better than generic drugs.
 4. Client will state two ways to obtain the medication at a reduced cost.
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The physician orders a brand name drug for the client. The hospital formulary substitutes the generic equivalent of the brand name drug, and the nurse administers the generic drug. Which statement(s) best represent(s) the nurse's action? Note: Credit will be given only if all correct choices and no incorrect choices are selected. Standard Text: Select all that apply.

1. The nurse should have contacted the physician prior to administering the drug.
 2. The nurse should have called the pharmacist to see if the drugs were bioequivalent.
 3. The nurse used good judgment in administering the drug.
 4. The nurse was correct; hospital policies allow for this.
 5. The nurse should ask the client which brand of drug is used at home.
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The nurse is categorizing a client's list of medications completing a health history. Which agents would be categorized as complementary and alternative medicine? Note: Credit will be given only if all correct choices and no incorrect choices are selected. Standard Text: Select all that apply.

- 1. Garlic
 - 2. Vitamin C
 - 3. Zinc
 - 4. Aspirin
 - 5. Benadryl
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Which type of classification system is being used when drugs are grouped together because they help treat a particular disease or condition?

- 1. Therapeutic
 - 2. Mechanism of action
 - 3. Chemical
 - 4. Pharmacological
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An overwhelmed nursing student asks the instructor whether there are any tips that will make learning pharmacology easier. The instructor gives an example of the anticoagulant heparin. The instructor indicates that knowing heparin and comparing other drugs to it will facilitate learning the many anticoagulants. Which approach is the instructor using?

- 1. Mechanism of action approach
 - 2. Generic name approach
 - 3. Trade name approach
 - 4. Prototype drug approach
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While discussing antihypertensives, the instructor states that a particular agent causes a reduction in blood pressure by blocking receptor sites. The student wishing to understand this statement would research which drug information?

- 1. Drug-drug interaction
 - 2. Adverse effects
 - 3. Indication
 - 4. Mechanism of action
-

Advil, Motrin, and Nuprin are examples of

- 1. chemical names.

2. combination names.
 3. trade names.
 4. generic names.
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A client says to the admitting nurse, "Why do you need to know the names of all the over-the-counter supplements I take? They aren't drugs." Which of the nurse's responses are appropriate? Note: Credit will be given only if all correct choices and no incorrect choices are selected. Standard Text: Select all that apply.

1. "The admitting physician needs to know everything you are taking."
 2. "You're right. I'm not sure why the admitting paperwork asks for this information. Would you mind listing them anyway?"
 3. "The law requires us to keep a list of over-the-counter drugs and supplements that you are taking."
 4. "It is true that supplements are not considered drugs; however, some of these products can cause adverse effects with prescribed drugs."
 5. "We need to know if you are having an allergic reaction to one of them."
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A prototype drug is a single drug in a class and can be compared with all other medications in the class. The benefit of studying the prototype drug is that the nurse would be able to predict characteristics of other drugs in the same class, including Note: Credit will be given only if all correct choices and no incorrect choices are selected. Standard Text: Select all that apply.

1. which drugs have the most favorable safety profile.
 2. their therapeutic indications.
 3. their actions.
 4. their adverse effects.
 5. duration of action of drugs in the group.
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Chemical names are assigned for each drug. What are the major reasons that nursing usually does not use the chemical name of the drugs? Note: Credit will be given only if all correct choices and no incorrect choices are selected. Standard Text: Select all that apply.

1. They are usually not brief or easy to remember.
 2. They are often difficult to pronounce.
 3. There is no standard for assigning names.
 4. They do not explain the nature of the drug.
 5. There is only one chemical name for each drug.
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A client says, "I don't understand why so much money is spent on trying to find a cure for cancer. I have epilepsy and wish more money went into epilepsy drugs." What should the nurse consider prior to responding? Note: Credit will be given only if all correct choices and no incorrect choices are selected. Standard Text: Select all that apply.

1. More people are affected by cancer than by epilepsy.
 2. Drugs that are effective in treating epilepsy exist.
 3. The amounts of money spent on drug development are determined at the federal level.
 4. It would be easier to achieve a cure for cancer than to achieve a cure for epilepsy.
 5. The client should realize that personal family may develop cancer one day.
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A client with advanced heart disease says, "I read about a new drug that was just released. Do you think my doctor could get it for me?" What should the nurse include in discussion with the client? Note: Credit will be given only if all correct choices and no incorrect choices are selected. Standard Text: Select all that apply.

1. "Since the drug is new it is dangerous to use."
 2. "Decisions on using drugs are based on many different variables."
 3. "We certainly can talk to your physician about the drug."
 4. "When drugs are first developed they are very expensive and their use is limited to those who can afford to purchase them."
 5. "People who are very sick often have unrealistic expectations of what drugs can do."
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Chapter 2

The pharmaceutical representative comes to the physician's office and says his company's pharmaceutical laboratory is marketing a drug that does not need approval by the Food and Drug Administration (FDA). What is the best response by the nurse?

1. "Any pharmaceutical laboratory in America must have approval from the Food and Drug Administration (FDA) before marketing a drug."
 2. "Is this an over-the-counter (OTC) drug? They do not need approval by the Food and Drug Administration (FDA)."
 3. "Is your pharmaceutical laboratory private? Only public pharmaceutical laboratories need approval from the Food and Drug Administration (FDA)."
 4. "Your pharmaceutical laboratory must be involved in academic research because they are exempt from approval by the Food and Drug Administration (FDA)."
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The nurse is employed by the Food and Drug Administration (FDA) and is involved in clinical investigation. What is the primary role of the nurse in this phase of the review and approval process by the FDA?

1. To perform tests on the population-at-large
 2. To perform tests on various species of animals
 3. To perform tests on human cells cultured in the laboratory
 4. To perform tests on human clients
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The student nurse is taking a pharmacology course and studying about the Food and Drug Administration (FDA). What has the student learned about how the FDA has decreased the amount of time involved in bringing a new drug to the market?

1. The Food and Drug Administration (FDA) is not as strict as it once was with regard to drug approval.
 2. Since consumers have demanded more drugs, the Food and Drug Administration (FDA) has streamlined the review/approval process.
 3. Drug manufacturers are required to pay yearly user fees, which allow the Food and Drug Administration (FDA) to hire more employees to increase its efficiency.
 4. Drug manufacturers are required by the Food and Drug Administration (FDA) to test more drugs on an annual basis.
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The client has skin lesions that have not responded to prescription drugs. He tells the nurse he has heard about some research going on with a new drug and questions why he can't take it. What is the best response by the nurse?

1. "I know it is frustrating, but the Food and Drug Administration (FDA) approval process is in place to ensure that drugs are safe."
 2. "The Food and Drug Administration (FDA) has very strict rules about new drugs; it is important to be patient regarding the review/approval process."
 3. "Your skin lesions really aren't that bad, but maybe the new drug will be available soon."
 4. "Maybe you could contact the drug company about becoming involved in a clinical trial."
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What percentage of Americans takes at least one prescription drug per year?

1. 50%
 2. 10%
 3. 40%
 4. 25%
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The nurse is teaching a medication class for parents of children with attention-deficit hyperactivity disorder who are receiving stimulant

medications. The nurse has reviewed reasons why the medications are restricted. The nurse determines that learning has occurred when the parents make which responses? Note: Credit will be given only if all correct choices and no incorrect choices are selected. Standard Text: Select all that apply.

1. "The use of these medications is restricted so that the pharmacies can track the rate of drug abuse in our city."
 2. "The use of these medications is restricted because the physician needs to evaluate our child more often."
 3. "The use of these medications is restricted because they have the potential for abuse."
 4. "The use of these medications is restricted so that the drug companies can make a bigger profit."
 5. "The use of these medications is restricted because this is the current law."
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The client says to the nurse, "My doctor said my drug is a controlled substance; am I considered an addict?" What is the best response by the nurse?

1. "Are you concerned about becoming an addict? We can discuss this in more detail if you would like to."
 2. "You are not an addict; the Drug Enforcement Administration (DEA) restricts the use of drugs with a high potential for abuse."
 3. "Why do you ask about becoming an addict? Not many of our clients have asked this question."
 4. "You are not an addict, but the Drug Enforcement Administration (DEA) will monitor you for this."
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The client is receiving methadone (Dolophine), a Schedule II drug. The client says to the nurse, "A pharmacist told me the pharmacy must register with the Drug Enforcement Administration (DEA) to give me this drug; will DEA agents be snooping around my house?" What is the best response by the nurse?

1. "It is probably unlikely that Drug Enforcement Administration (DEA) agents will be bothering you."
 2. "No, the Drug Enforcement Administration (DEA) restricts drugs that have a high potential for abuse."
 3. "No. I think our system should be more like Europe; they have fewer controlled drugs."
 4. "That's an interesting question. Are you worried about the Drug Enforcement Administration (DEA)?"
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During the admission assessment, the client tells the nurse "Sure I smoke a little weed (marijuana) to manage my stress. Doesn't everyone?" What is the best assessment question for the nurse to ask?

1. "What other ways do you think you might use to help you to manage your stress?"
 2. "That is a Schedule I drug; aren't you afraid of going to jail for a long time?"
 3. "Do you really believe that everyone smokes marijuana to manage stress?"
 4. "How often do you smoke marijuana, and how much each time?"
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The mother of an adolescent receiving methylphenidate (Concerta) for attention-deficit hyperactivity disorder tells the nurse that her son is better and asks why she can't just get refills on the prescription. What is the best response by the nurse?

1. "Just drop by and I will get a prescription for you without seeing your son."
 2. "We can't do that; maybe you can find another doctor's office that will do it."
 3. "The law does not allow us to give you refills on this medication."
 4. "The medication can be addictive so your son needs a monthly medical evaluation."
-

A client who is terminally ill reports hearing about a drug that is in preclinical investigation. The client asks the nurse if the drug will be available to the public soon. What should the nurse consider when formulating an answer to this question?

1. After preclinical investigation the drug has one more step before being released for public use.
2. The average length of preclinical investigation is 18 months.
3. When the drug reaches the clinical investigation stage it is usually released within 2 years.
4. The drug will not be available until after the post-marketing studies are done.

The nurse provides medication education to a client with terminal cancer. The physician has ordered morphine (MS Contin), a Schedule II drug, for the client. The nurse determines that learning has occurred when the client makes which statement?

1. "I need to call the office for a refill before my medication runs out."

2. "This drug is addictive so I should only take it when my pain becomes severe."
3. "Maybe my doctor could change me to a Schedule IV drug."
4. "I need to see my doctor before my prescription runs out so I can get a refill."

A drug manufacturer that is performing the effects of a drug on laboratory animals would be in which phase of the new drug development timeline?

1. Clinical Investigation
 2. Preclinical Investigation
 3. New Drug Application Review
 4. Post-marketing Studies
-

While reading a medication package insert, the nurse notes the information contained within the "black box." What is the significance of this information to the nurse? Note: Credit will be given only if all correct choices and no incorrect choices are selected. Standard Text: Select all that apply.

1. The drug can cause "special problems."
 2. It identifies extreme adverse drug reactions.
 3. It differentiates a prescribed medication from an over-the-counter medication.
 4. It highlights the cost of the medication.
 5. It signifies the medication is generic.
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The nurse is participating in the New Drug Review step for a new therapeutic agent. Which activities will the nurse most likely perform during this phase of the drug approval process? Note: Credit will be given only if all correct choices and no incorrect choices are selected. Standard Text: Select all that apply.

1. Attend meetings to finalize the brand name for the drug.
 2. Check on the results of animal testing.
 3. Survey for harmful effects in a larger population.
 4. Evaluate the results of the drug on cultured cells.
 5. Provide the medication to large groups of people with a particular disease.
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Which statements regarding the role of the U.S. Food and Drug Administration (FDA) are true? Note: Credit will be given only if all correct choices and no incorrect choices are selected. Standard Text: Select all that apply.

1. The FDA is responsible for improving the health of Americans.
2. The FDA publishes a summary of the standards of drug purity and strength.
3. The FDA ensures the availability of effective drugs.

4. The FDA takes action against any supplement that is deemed to be unsafe.
 5. The FDA facilitates the availability of safe drugs.
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Which statements regarding the preclinical research stage of drug development are true? Note: Credit will be given only if all correct choices and no incorrect choices are selected. Standard Text: Select all that apply.

1. Most drugs do not proceed past the preclinical stage because they are found to be too toxic or just ineffective.
 2. At the end of the preclinical research stage, client variability is determined and potential drug-to-drug interactions are examined.
 3. The preclinical stage of research involves extensive testing on animals in the laboratory to determine if the drug will cause harm to humans.
 4. Preclinical research results are always inconclusive.
 5. The Food and Drug Administration (FDA) is responsible for extensive testing for safety before the pharmaceutical company can begin the preclinical research stage of development.
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The nurse developing a time line of drug regulations and standards would list the following events in which chronological order?

1. Passage of the Sherley Amendment
 2. Passage of the Childhood Vaccine Act
 3. Development of the U.S. Pharmacopoeia
 4. Passage of the Prescription Drug User Fee Act
 5. Passage of the Biologics Control Act
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Which drug has the highest dependency potential?

1. Acetaminophen
 2. Codeine
 3. Heroin
 4. Diazepam
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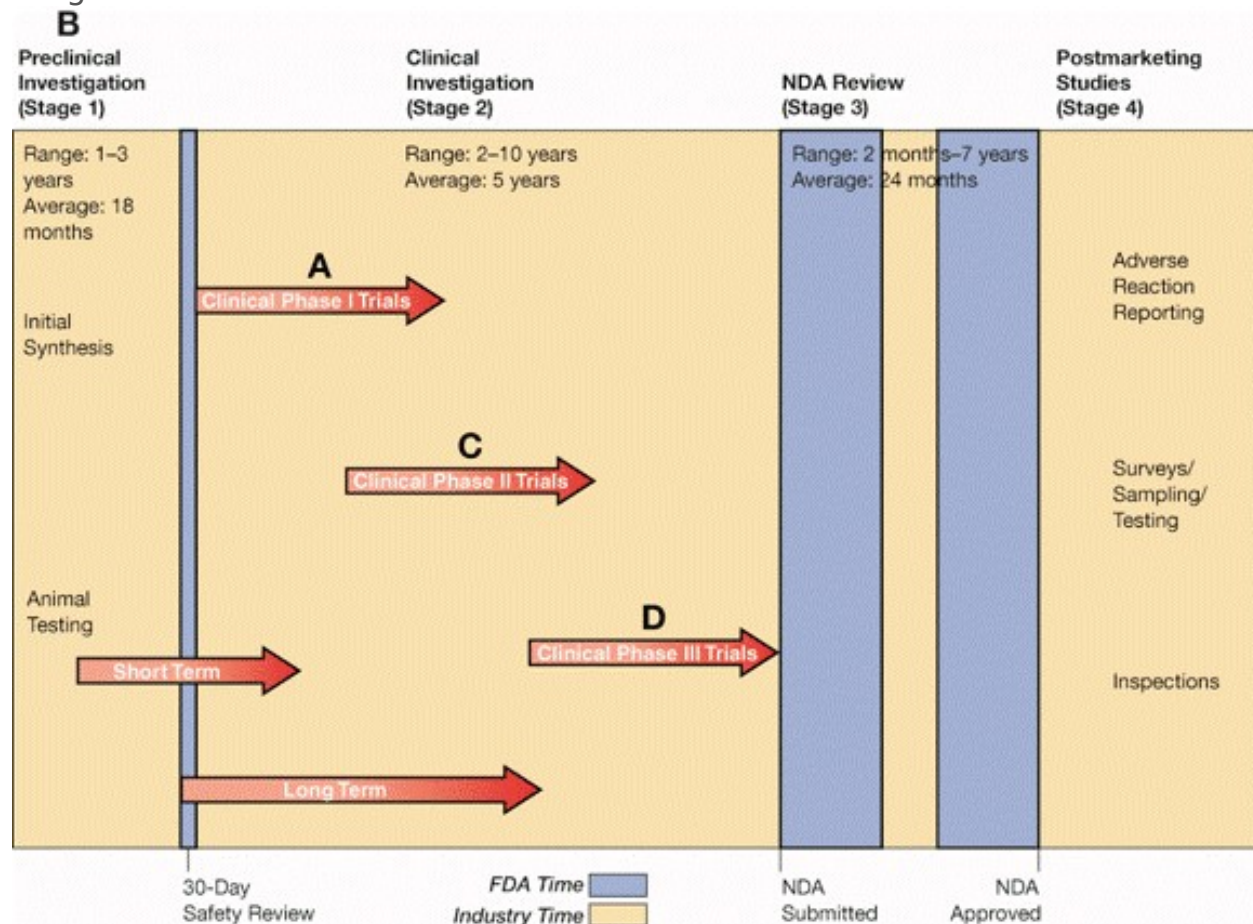
A drug is withdrawn from a client who has been taking it routinely for many years. The client has developed muscle tremors. How would the nurse characterize this event?

1. As an adverse effect
2. As evidence that the client had psychological dependence on the drug
3. As an expected therapeutic effect of no longer taking the drug
4. As an assessment finding associated with physical dependence on a drug

The nurse reviewing prescription refill request messages would collaborate with the physician regarding a request for which drug?

1. Morphine
2. Cannabis
3. Meperidine
4. An anabolic steroid

A nurse is administering a medication to a group of volunteers and is assessing for the development of adverse effects. The nurse is working in which phase of the development of this drug?

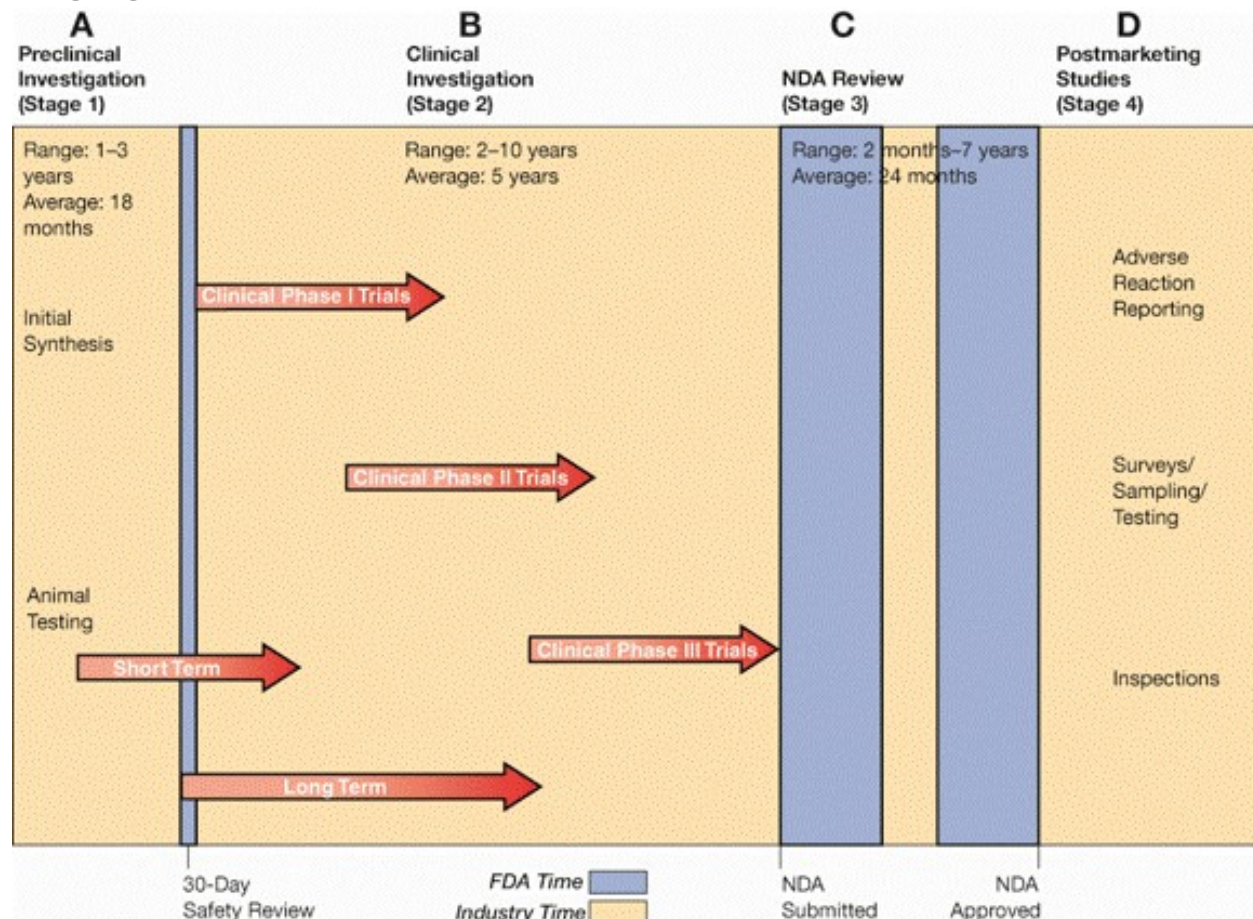


1. A
2. B
3. C
4. D

A client has been chosen to participate in the clinical trial of a medication to treat chemotherapy-induced nausea. When the nurse takes the informed consent form to the bedside the client says, "I am glad there is finally a medication to cure my cancer." How should the nurse respond? Note: Credit will be given only if all correct choices and no incorrect choices are selected.
Standard Text: Select all that apply.

1. "Who told you the medication would cure your cancer?"
2. "What questions do you have about this medication?"
3. "Let me explain how this medication works."
4. "Has anyone explained the research trial to you?"
5. "So am I. This research has been intense."

All nurses who administer medications participate in which portion of the drug development and approval timeline?



1. A
2. B
3. C
4. D

A nurse teaches the client that the newly prescribed medication has a very high risk of causing fetal abnormalities and that reliable measures to prevent pregnancy are essential while taking the medication. The nurse has described a medication that falls into which

CATEGORY A **A**

CATEGORY B **B**

CATEGORY C

CATEGORY D **C**

CATEGORY X **D**

category?

1. A
2. B
3. C
4. D

The nurse is providing preconception teaching to a group of women who wish to become pregnant. The nurse informs the group that which classifications of medications have shown no confirmed risk for fetal abnormalities if taken while pregnant? Note: Credit will be given only if all correct choices and no incorrect choices are selected. Standard Text: Select all that apply.

1. Category A
2. Category B
3. Category C
4. Category D
5. Category X

A client at 14-weeks gestation is seen in the clinic with a sprained ankle. The physician prescribes a mild analgesic, rest, compression, and application of an ice bag. The client is very concerned about taking the prescribed medication, telling the nurse, "I don't want to hurt my baby." How should the nurse respond? Note: Credit will be given only if all correct choices and no incorrect choices are selected. Standard Text: Select all that apply.

1. "The most dangerous time for birth defects is probably in the first semester and you are past that now."
2. "You are wise to avoid all drugs. I would only use the rest, compression, and ice."
3. "Let me check with the physician to see if he remembered you are pregnant."
4. "This is a category A drug, so there is very little risk to your baby."

5. "Don't worry, it will all be okay. You need to take care of yourself first."

A nurse suspects a client has had an allergic reaction to a recently prescribed antibiotic. The nurse is responsible for providing emergency treatment and for reporting this suspected reaction to which persons? Note: Credit will be given only if all correct choices and no incorrect choices are selected.
Standard Text: Select all that apply.

- 1. FDA
 - 2. The prescriber
 - 3. Hospital pharmacist
 - 4. Medicare
 - 5. Hospital risk management
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