PHARMACOLOGY (LEC 10)

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MCQS

Here are 10 multiple-choice questions (MCQs) based on the information provided in the text:

- 1. What is the definition of an adverse drug reaction (ADR)?
 - a) Any reaction to a drug
 - b) Harmful or unpleasant reaction due to a drug at therapeutic doses
 - c) Unwanted pharmacological effects of a drug
 - d) Side effect due to genetic predisposition
- 2. Which type of ADR is predictable and usually reversible, such as bleeding with anticoagulants?
 - a) Type A (Augmented)
 - b) Type B (Bizarre)
 - c) Type C (Chronic)
 - d) Type D (Delayed)
- 3. ADRs based on immunological reactions and genetic makeup of a person are classified as:
 - a) Type A (Augmented)
 - b) Type B (Bizarre)
 - c) Type C (Chronic)
 - d) Type D (Delayed)

4. When does teratogenicity occur in pregnancy due to drug exposure?
a) During fertilization and implantation
b) During organogenesis
c) During growth and development
d) All of the above
5. What is the term for an exaggerated pharmacological response to the usual dose of a drug?
a) Intolerance
b) Physical dependence
c) Congenital tolerance
d) Drug habituation
6. Physical dependence on a drug results in:
a) Increased physiological equilibrium
b) Drug withdrawal syndrome
c) Habituation
d) Tolerance
7. Which of the following is NOT a component of pharmacovigilance?
a) Post-marketing surveillance
b) Voluntary reporting by patients
c) Dissemination of ADR data through medical letters
d) Pharmaceutical marketing strategies
8. What is the primary goal of pharmacovigilance?

- a) Promote pharmaceutical marketing
- b) Educate patients about drug side effects
- c) Detect, assess, understand, and prevent adverse drug reactions
- d) Ensure rapid drug approval
- 9. Which type of ADR requires immediate withdrawal of the drug and is often associated with serious clinical outcomes?
 - a) Type A (Augmented)
 - b) Type B (Bizarre)
 - c) Type C (Chronic)
 - d) Type D (Delayed)
- 10. In pharmacovigilance, what is the purpose of changes in the labeling of medicines?
 - a) To increase drug sales
 - b) To provide additional drug information to patients
 - c) To indicate restrictions in use, warnings, precautions, or drug withdrawal
 - d) To simplify drug dosing instructions

Answers and explanations:

Here are the answers and explanations for the multiple-choice questions:

1. What is the definition of an adverse drug reaction (ADR)?

Answer: b) Harmful or unpleasant reaction due to a drug at therapeutic doses

Explanation: An adverse drug reaction (ADR) is a harmful or unpleasant reaction to a drug that occurs at doses normally used in humans and may require treatment, dose reduction, or caution in future drug use. It is not just any reaction to a drug but specifically one that is harmful at therapeutic doses.

2. Which type of ADR is predictable and usually reversible, such as bleeding with anticoagulants?

Answer: a) Type A (Augmented)

Explanation: Type A ADRs are predictable and based on the pharmacological actions of the drug. They are often dose-related and reversible. Examples include bleeding with anticoagulants, as the effect is directly related to the drug's pharmacological properties.

3. ADRs based on immunological reactions and genetic makeup of a person are classified as:

Answer: b) Type B (Bizarre)

Explanation: Type B ADRs are unpredictable and often result from immunological reactions or genetic predisposition. These reactions are more serious and have higher morbidity and mortality compared to Type A reactions.

4. When does teratogenicity occur in pregnancy due to drug exposure?

Answer: d) All of the above

Explanation: Teratogenicity can occur during different stages of pregnancy. It can affect the fetus during fertilization and implantation, organogenesis, and later stages of growth and development.

5. What is the term for an exaggerated pharmacological response to the usual dose of a drug?

Answer: a) Intolerance

Explanation: Intolerance refers to an exaggerated pharmacological response to the usual dose of a drug. This response is not related to the dose of the drug but rather to an individual's sensitivity to the drug.

6. Physical dependence on a drug results in:

Answer: b) Drug withdrawal syndrome

Explanation: Physical dependence on a drug means that discontinuation of the drug results in a

characteristic withdrawal syndrome. This syndrome includes various physical and physiological symptoms.

7. Which of the following is NOT a component of pharmacovigilance?

Answer: d) Pharmaceutical marketing strategies

Explanation: Pharmacovigilance focuses on activities related to detecting, assessing, understanding, and

preventing adverse drug reactions. It does not involve pharmaceutical marketing strategies.

8. What is the primary goal of pharmacovigilance?

Answer: c) Detect, assess, understand, and prevent adverse drug reactions

Explanation: The primary goal of pharmacovigilance is to detect, assess, understand, and prevent

adverse drug reactions and other drug-related problems. It aims to ensure the safety of medicines.

9. Which type of ADR requires immediate withdrawal of the drug and is often associated with serious

clinical outcomes?

Answer: b) Type B (Bizarre)

Explanation: Type B ADRs are unpredictable and often require immediate withdrawal of the drug. They

are associated with more serious clinical outcomes and higher risks.

10. In pharmacovigilance, what is the purpose of changes in the labeling of medicines?

Answer: c) To indicate restrictions in use, warnings, precautions, or drug withdrawal

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Explanation: Changes in the labeling of medicines in pharmacovigilance are made to inform healthcare professionals and patients about restrictions in use, warnings, precautions, or, in some cases, the withdrawal of a drug due to safety concerns. These changes are important for ensuring safe drug use.

Regarding qs:

Here are 10 multiple-choice questions (MCQs) based on the information from the provided text, with five choices each. Each question will ask you to identify the incorrect sentence:

- 1. Regarding Adverse Drug Reactions (ADRs), find the wrong sentence from the following choices:
 - A. ADRs are harmful or unpleasant reactions due to a drug at therapeutic doses.
 - B. Type A ADRs are usually unpredictable and irreversible.
 - C. Type B ADRs can result from immunological reactions or genetic predisposition.
 - D. Teratogenicity can affect the fetus during organogenesis.
- E. Physical dependence on a drug necessitates the continued presence of the drug to maintain physiological equilibrium.
- 2. Which of the following sentences is incorrect regarding Type A (Augmented) ADRs?
 - A. Type A ADRs are predictable and often dose-related.
 - B. They are based on the pharmacological actions of the drug.
 - C. Type A ADRs are typically reversible.
 - D. Type A ADRs can be prevented.
 - E. They account for 75% of ADRs.
- 3. Which statement about pharmacovigilance is incorrect?
- A. Pharmacovigilance involves detecting, assessing, understanding, and preventing adverse drug reactions.
 - B. Post-marketing surveillance is a component of pharmacovigilance.

- C. Pharmaceutical marketing strategies are a key focus of pharmacovigilance.
- D. Changes in drug labels can indicate restrictions, warnings, or precautions.
- E. Dissemination of ADR data through medical letters is part of pharmacovigilance.
- 4. Identify the incorrect statement about teratogenicity:
 - A. Teratogenicity can affect the fetus during organogenesis.
 - B. Thalidomide is an example of a teratogenic drug.
 - C. ACE inhibitors can cause growth retardation in the fetus.
 - D. Teratogenicity only occurs during the third trimester of pregnancy.
 - E. Teratogenic drugs can lead to developmental and functional abnormalities.
- 5. What is the incorrect characteristic of Type C (Chronic) ADRs?
 - A. They are associated with long-term exposure to a drug.
 - B. These ADRs are predictable.
 - C. Chronic use of analgesics can lead to interstitial nephritis.
 - D. Type C ADRs often result from cumulative, long-term drug exposure.
 - E. Type C ADRs manifest with significant delay.
- 6. Find the incorrect statement regarding drug-induced diseases:
 - A. Drug-induced diseases are also called iatrogenic diseases.
 - B. Hepatitis can be induced by isoniazid and rifampicin.
 - C. Salicylates and corticosteroids can lead to peptic ulcers.
 - D. Drug-induced diseases are caused by the therapeutic use of drugs.
 - E. Chloroquine can cause retinal damage.
- 7. Which of the following is not a type of tolerance?

- A. Acquired tolerance
- B. Congenital tolerance
- C. Racial tolerance
- D. Bacterial resistance
- E. Tachyphylaxis
- 8. Identify the incorrect characteristic of physical dependence on a drug:
 - A. Physical dependence results from repeated drug administration.
 - B. Withdrawal from the drug leads to a characteristic syndrome.
 - C. More doses of the drug are needed to achieve the original effect.
 - D. It is reversible when the drug is stopped.
 - E. Physical dependence does not involve physiological changes.
- 9. What is the incorrect definition of drug habituation (psychological dependence)?
 - A. It involves less intensive involvement with the drug.
 - B. Physical dependence is always present in drug habituation.
 - C. It results in mild discomfort upon withdrawal.
 - D. Consumption of tea, coffee, and tobacco is considered habituating.
 - E. It doesn't require the continued presence of the drug for physiological equilibrium.
- 10. Which statement about drug abuse is incorrect?
 - A. Drug abuse refers to the use of a drug for personal satisfaction.
 - B. Drug addiction involves compulsive drug seeking despite adverse consequences.
 - C. Drug addiction and drug habituation are synonymous terms.
 - D. Self-medication with a drug can be a form of drug abuse.
 - E. Drug habituation typically involves less intense involvement with the drug.

Answers and explanations:

Here are the answers and explanations for the multiple-choice questions:

1. Regarding Adverse Drug Reactions (ADRs), find the wrong sentence from the following choices:

Answer: B. Type A ADRs are usually unpredictable and irreversible.

Explanation: This statement is incorrect. Type A ADRs are typically predictable and reversible, not unpredictable and irreversible.

2. Which of the following sentences is incorrect regarding Type A (Augmented) ADRs?

Answer: B. They are based on the pharmacological actions of the drug.

Explanation: This statement is incorrect. Type A ADRs are indeed based on the pharmacological actions of the drug, so this choice is accurate.

3. Which statement about pharmacovigilance is incorrect?

Answer: C. Pharmaceutical marketing strategies are a key focus of pharmacovigilance.

Explanation: This statement is incorrect. Pharmacovigilance focuses on drug safety, detection, and monitoring of adverse drug reactions, not pharmaceutical marketing strategies.

4. Identify the incorrect statement about teratogenicity:

Answer: D. Teratogenicity only occurs during the third trimester of pregnancy.

Explanation: This statement is incorrect. Teratogenicity can occur during various stages of pregnancy, not just during the third trimester.

5. What is the incorrect characteristic of Type C (Chronic) ADRs?

Answer: B. These ADRs are predictable.

Explanation: This statement is incorrect. Type C ADRs are not predictable; they are associated with long-term exposure to drugs and may not be easily anticipated.

6. Find the incorrect statement regarding drug-induced diseases:

Answer: D. Drug-induced diseases are caused by the therapeutic use of drugs.

Explanation: This statement is incorrect. Drug-induced diseases are caused by drugs but not necessarily by their therapeutic use. They can result from side effects, toxicity, or other unintended consequences.

7. Which of the following is not a type of tolerance?

Answer: D. Bacterial resistance

Explanation: Bacterial resistance is not a type of tolerance. Tolerance typically refers to the body's adaptation to the effects of a drug or substance.

8. Identify the incorrect characteristic of physical dependence on a drug:

Answer: E. Physical dependence does not involve physiological changes.

Explanation: This statement is incorrect. Physical dependence does involve physiological changes in the body to adapt to the presence of the drug.

9. What is the incorrect definition of drug habituation (psychological dependence)?

Answer: B. Physical dependence is always present in drug habituation.

Explanation: This statement is incorrect. Physical dependence is not always present in drug habituation. Psychological dependence or habituation typically involves less intensive involvement with the drug and doesn't necessarily require the continued presence of the drug for physiological equilibrium.

10. Which statement about drug abuse is incorrect?

Answer: C. Drug addiction and drug habituation are synonymous terms.

Explanation: This statement is incorrect. Drug addiction and drug habituation are not synonymous terms. While both involve substance use, addiction typically involves compulsive drug-seeking behavior despite adverse consequences, whereas habituation is less intensive involvement with the drug.