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Course Name : D. Pharm

Year : Second Year

Subject Name : Pharmacology

**Topic Name : General mechanism of drug action
and factors that modify drug action**

1. What is the primary mechanism by which drugs exert their effects on the body?
- A) Inhibition of enzyme activity
 - B) Alteration of cellular membrane permeability
 - C) Interaction with specific receptors
 - D) Promotion of neurotransmitter release

Answer: C) Interaction with specific receptors

2. Which of the following factors can modify the action of a drug in the body?
- A) Route of administration
 - B) Age and gender of the individual
 - C) Presence of other drugs
 - D) All of the above

Answer: D) All of the above

3. Which of the following is NOT a factor that can modify drug action?
- A) Blood type
 - B) Genetic variations
 - C) Disease states
 - D) Environmental factors

Answer: A) Blood type

4. What term describes the phenomenon where the effect of two drugs taken together is greater than the sum of their individual effects?
- A) Synergism
 - B) Potentiation
 - C) Antagonism
 - D) Tolerance

Answer: B) Potentiation

5. Drug-drug interactions can result in:
- A) Increased therapeutic effects
 - B) Decreased therapeutic effects
 - C) Adverse effects
 - D) All of the above

Answer: D) All of the above

6. Which of the following factors can affect the pharmacokinetics of a drug?

- A) Absorption
- B) Distribution
- C) Metabolism
- D) All of the above

Answer: D) All of the above

7. Drug tolerance can develop due to:

- A) Repeated exposure to the drug
- B) Genetic factors
- C) Drug interactions
- D) Environmental factors

Answer: A) Repeated exposure to the drug

8. Which of the following factors can influence drug absorption?

- A) pH of the gastrointestinal tract
- B) Blood flow to the site of administration
- C) Surface area available for absorption
- D) All of the above

Answer: D) All of the above

9. The placebo effect refers to:

- A) The therapeutic effect of a drug
- B) The adverse effects of a drug
- C) The psychological effect of believing a treatment is effective
- D) The genetic predisposition to drug response

Answer: C) The psychological effect of believing a treatment is effective

10. The therapeutic index of a drug is a measure of:

- A) Its potency
- B) Its selectivity
- C) Its safety margin
- D) Its duration of action

Answer: C) Its safety margin

11. Drug metabolism primarily occurs in which organ?

- A) Liver
- B) Kidneys
- C) Lungs
- D) Brain

Answer: A) Liver

12. Pharmacogenomics refers to the study of:

- A) Drug interactions
- B) Drug metabolism
- C) Genetic factors influencing drug response
- D) Drug distribution

Answer: C) Genetic factors influencing drug response

13. Which of the following is NOT a factor that can affect drug distribution?

- A) Protein binding
- B) Lipid solubility
- C) Blood-brain barrier
- D) Renal function

Answer: D) Renal function

14. Drug interactions can result in:

- A) Increased therapeutic effects
- B) Decreased therapeutic effects
- C) Altered pharmacokinetics
- D) All of the above

Answer: D) All of the above

15. Which of the following routes of drug administration bypasses the gastrointestinal tract?

- A) Oral
- B) Intravenous
- C) Sublingual
- D) Rectal

Answer: B) Intravenous

16. Which of the following factors can affect drug metabolism?

- A) Enzyme induction
- B) Enzyme inhibition
- C) Genetic polymorphisms
- D) All of the above

Answer: D) All of the above

17. Drug selectivity refers to:

- A) The ability of a drug to produce a specific therapeutic effect
- B) The number of adverse effects a drug can produce
- C) The duration of action of a drug

D) The potency of a drug

Answer: A) The ability of a drug to produce a specific therapeutic effect

18. Pharmacodynamics is the study of:

A) Drug interactions

B) Drug metabolism

C) Drug effects on the body

D) Drug distribution

Answer: C) Drug effects on the body

19. The duration of action of a drug is primarily determined by:

A) Its potency

B) Its bioavailability

C) Its half-life

D) Its therapeutic index

Answer: C) Its half-life

20. The therapeutic effect of a drug is determined by:

A) Its chemical structure

B) Its mechanism of action

C) Its route of administration

D) All of the above

Answer: D) All of the above