

Essential Concepts in Pharmacology

Pharmacology · Practice Test · 8 Questions

1. Which organ is primarily responsible for the 'first-pass effect' during oral drug metabolism?

- A) Liver
- B) Kidney
- C) Stomach
- D) Lungs

2. What is the primary mechanism of action of penicillin antibiotics?

- A) Inhibiting bacterial cell wall synthesis
- B) Blocking viral RNA replication
- C) Disrupting fungal cell membranes
- D) Inhibiting mammalian protein synthesis

3. Which medication is used as a specific antagonist to reverse opioid overdose?

- A) Atropine
- B) Naloxone
- C) Flumazenil
- D) Protamine sulfate

4. What does the 'half-life' of a drug refer to?

- A) The time required for half of the drug dose to be absorbed into the stomach
- B) The time needed for the plasma concentration of the drug to decrease by 50%
- C) The expiration period of the medication from manufacture date
- D) The duration of time a patient experiences clinical relief

5. Which agent is administered as an antidote for paracetamol (acetaminophen) overdose?

- A) N-acetylcysteine
- B) Calcium gluconate
- C) Vitamin K
- D) Activated charcoal

6. Nonsteroidal anti-inflammatory drugs (NSAIDs) such as ibuprofen work primarily by inhibiting which enzyme?

- A) Cyclooxygenase
- B) Acetylcholinesterase
- C) HMG-CoA reductase
- D) Angiotensin-converting enzyme

7. What pharmacological term describes a drug's capacity to cause structural malformations in a developing fetus?

- A) Teratogenicity
- B) Carcinogenicity
- C) Mutagenicity
- D) Cytotoxicity

8. What does the term 'bioavailability' describe?

- A) The rate at which a drug is filtered out by the renal system
- B) The mass of active chemical compound per oral tablet
- C) The fraction of an administered drug that reaches systemic circulation unchanged
- D) The percentage of drug that binds directly to plasma proteins