

## Sample tests – Module 15

1. Which of the following statements is correct?
  1. Drugs showing a large VD can be efficiently removed by dialysis of the plasma.
  2. **Stressful emotions can lead to a slowing of drug absorption.**
  3. If the VD for a drug is small, most of the drug is in the extraplasmic space.
  4. Weak bases are absorbed efficiently across the epithelial cells of the stomach.
2. Which of the following statements is correct?
  1. Coadministration of atropine which slows gastric emptying speeds the absorption of a second drug.
  2. The addition of glucuronic acid to a drug occurs at the same rate in adults and newborns.
  3. **Active transport of drugs by special carrier molecules occurs if the drugs are structurally related to endogenous molecules, such as amino acids or sugars.**
  4. Passive diffusion across lipid membranes requires some degree of water solubility.
3. The following drugs inhibit CYP-450 enzymes, except:
  1. Erythromycin (antibiotic)
  2. Ciprofloxacin (antibacterial)
  3. Cimetidine (antiulcer drug)
  4. **Phenobarbital (hypnotic drug)**
4. The following statements describe pharmacodynamics concepts:
  1. Drug A is said to be more potent than drug B, if drug A's maximal effect is greater than that of drug B.
  2. A partial agonist is a drug that binds to a receptor without stimulating it.
  3. All drugs act by binding to cell macromolecules.
  4. **The expression therapeutic index refers to the difference between the concentration of a drug required to produce its effects and that required to produce toxicity.**
5. Choose the correct answer:
  1. Drug A is said to be more efficacious than drug B if drug A produces its maximum effect at a lower concentration than drug B.
  2. **Receptors are continually being synthesized and destroyed by cell.**
  3. Antagonists do not themselves bind to receptors, but interfere with agonists binding.
  4. Competitive antagonist effect cannot be overcome by increasing the agonist concentration.
6. Which of the following agents activates ion channels?
  1. **Acetylcholine via nicotinic receptor.**
  2. Acetylcholine via muscarinic receptor.
  3. Insulin
  4. Cytokines.
7. Receptor "up-regulation" more frequently may be developed after long-term exposure to:
  1. **Competitive antagonist**
  2. Full agonist
  3. Partial agonist
  4. Inverse agonist
8. The action of Norepinephrine:
  1. **Is potentiated by inhibitors of monoamine oxidase A (MAO-"A").**
  2. Is decreased by tricyclic antidepressants.
  3. Includes vasodilation in some arteriolar beds.

4. Is based on its binding to B<sub>2</sub>-adrenoceptors.
9. Which of the following adrenoceptors agonists can stimulate  $\alpha_1$ ,  $\alpha_2$ , B<sub>1</sub>, B<sub>2</sub> and B<sub>3</sub> adrenoceptors?
  1. Norepinephrine
  2. **Epinephrine**
  3. Phenylephrine
  4. Albuterol
10. Which cholinergic agonist agent is mostly used for the treatment of glaucoma:
  1. **Pilocarpine**
  2. Bethanechol
  3. Methacholine
  4. Carbachol
11. Treatment of acute overdosage with long-acting anticholinesterase includes:
  1. **Pralidoxime**
  2. Parathion
  3. Edrophonium
  4. Methacholine
12. Which anticholinesterase drug is used as antidote for tubocurarine (skeletal muscle relaxant)?
  1. Echothiophate
  2. Edrophonium
  3. **Neostigmine**
  4. Physostigmine