

Pharmacology

Archive

Lecture 8

Pharmacodynamic II

Corrected by:

Ibrahim Sabri Al-Awaje



1. Which of the following best defines a drug receptor that considers an agonist?

- a) Endogenous ligand
- b) Produces no response
- c) Inhibits receptor function when bound
- d) Causes irreversible receptor binding

Answer: a) Endogenous ligand

2. What is the primary cause of receptor down-regulation?

- a) Shock
- b) Receptor amount
- c) Prolonged occupation by an agonist
- d) Low receptor affinity

Answer: c) Prolonged occupation by an agonist

3. If you give a patient a drug and the HP rise 20 so this mean it is a

- a) Effective dose
- b) E-max
- c) therapeutic index
- d) therapeutic window

answer: a

4. Cancer patients in the last stage he take opioids and this drug tolerance , what will increase

- a) therapeutic index
- b) median dose
- c) potenev
- d) efficacy

answer: a

5. The intensity of a drug's effect is primarily due to:

- a) Concentration of the drug at the receptor site
- b) Chemical instability
- c) Physical state of the drug
- d) Absence of side effects

Answer: a) Concentration of the drug at the receptor site

6. All of the following are true about adverse drug reactions (ADRs) except:

- A) Wide therapeutic index drugs cause ADRs
- B) Narrow therapeutic index drugs cause ADRs
- C) ADRs can occur with both prescription and over-the-counter drugs
- D) ADRs may be influenced by individual patient factors

Answer: A) Wide therapeutic index drugs cause ADRs

7. Which of them can't be observed:

- A- specificity
- B- selectivity
- C- potency
- D- mutagenicity
- D- reactogenicity

Answer :A

8. A 67-year-old man suffering from terminal cancer started analgesic treatment with an opioid drug. Knowing that tolerance to opioids is pronounced, which of the following drug parameters was most likely increased after a few days of treatment?

- A. Maximal efficacy
- B. Median effective dose
- C. Therapeutic index
- D. Potency
- E. Half-life

Answer: B. Median effective dose

9. A new β -blocker was tested in healthy volunteers. The cumulative frequency distribution of subjects showing a decrease of 10 bpm in the heart rate was plotted against the log dose. Which of the following drug parameters can be determined from this cumulative frequency distribution?

- A. Receptor affinity
- B. Median effective dose
- C. Therapeutic index
- D. Therapeutic window
- E. Maximal efficacy

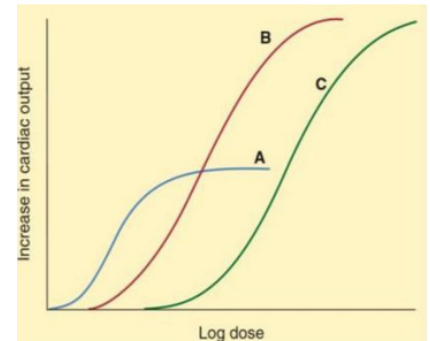
Answer :B

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10. Prior to clinical trials in patients with heart failure, an animal study was carried out to compare two new positive inotropic drugs (A and B) to a current standard agent (C). The results of cardiac output measurements are shown in the graph below. Which of the following statements is correct?

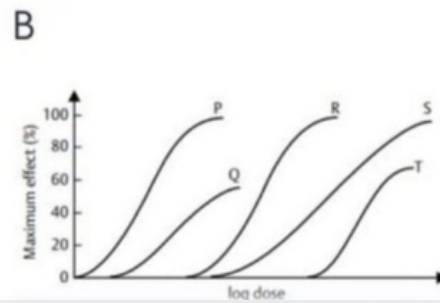
- (A) Drug A is most effective
- (B) Drug B is least potent
- (C) Drug C is most potent
- (D) Drug B is more potent than drug C and more effective than drug A
- (E) Drug A is more potent than drug B and more effective than drug C



Answer : D

11. The figure below depicts the in vitro log dose-response curves of five different drugs (P, Q, R, S, and T). Which of the following pairs of drugs can fully activate the same receptors?

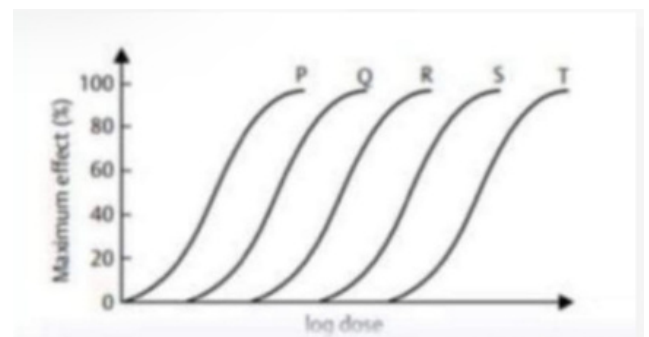
- A. Drugs P and R
- B. Drugs P and S
- C. Drugs P and T
- D. Drugs Q and T
- E. Drugs Q and S
- F. Drugs R and S



Answer : B

12. The figure below depicts the in vitro log dose response curves of five different drugs (P, Q, R, S, and T) acting on the same receptor. Which of the following drugs has the highest ED₅₀?

- A. Drug P
- B. Drug Q
- C. Drug R
- D. Drug S
- E. Drug T



Answer : E

