

Pharmacology Second



- 1) Which of the following is correct regarding the autonomic nervous system (ANS)?
 - Afferent neurons carry signals from the CNS to the effector organs.
 - The neurotransmitter at the parasympathetic ganglion is norepinephrine (NE).
 - **The neurotransmitter at the sympathetic ganglion is acetylcholine (ACh).***
 - Sympathetic neurons release ACh in the effector organs.
 - Parasympathetic neurons release NE in the effector organs.
- 2) Which of the following changes could theoretically happen in a person when the parasympathetic system is inhibited using a pharmacological agent?
 - Reduction in heart rate.
 - Constriction of the pupil (miosis).
 - Increase in gastric motility.
 - **Dry mouth (xerostomia).**
 - Contraction of detrusor muscle in the bladder.
- 3) Which of the following statements is correct regarding the sympathetic and parasympathetic systems?
 - **Acetylcholine activates muscarinic receptors.***
 - Acetylcholine activates adrenergic receptors.
 - Norepinephrine activates muscarinic receptors.
 - Activation of the sympathetic system causes a drop in blood pressure.

- 4) patient was given a non-selective beta blocker Which of the following symptoms would you expect in this patient?
- Increased heart rate (tachycardia).
 - **Reduced heart rate (bradycardia).***
 - Dilation of the pupil (mydriasis).
 - Increased blood pressure.
- 5) Botulinum toxin blocks the release of acetylcholine from cholinergic nerve terminals. Which of the following is a possible effect of botulinum toxin?
- **Skeletal muscle paralysis.***
 - Improvement of myasthenia gravis symptoms.
 - Increased salivation.
 - Reduced heart rate.
- 6) Which of the following is a systemic effect of a muscarinic agonist?
- **Reduced heart rate (bradycardia).***
 - Increased blood pressure.
 - Mydriasis (dilation of the pupil).
 - Reduced urinary frequency.
 - Constipation.
- 7) If an ophthalmologist wants to dilate the pupils for an eye examination, which of the following drugs/classes of drugs could be theoretically useful?
- Muscarinic receptor activator (agonist).
 - **Muscarinic receptor inhibitor (antagonist).***
 - Acetylcholine.
 - Pilocarpine.
 - Neostigmine.
- 8) In Alzheimer's disease, there is a deficiency of cholinergic neuronal function in the brain. Theoretically, which of the following strategies will be useful in treating the symptoms of Alzheimer's disease?
- Inhibiting cholinergic receptors in the brain.
 - Inhibiting the release of acetylcholine in the brain.
 - **Inhibiting the acetylcholinesterase enzyme in the brain.***
 - Activating the acetylcholinesterase enzyme in the brain.

9) Which of the following drugs or classes of drugs will be useful in treating the symptoms of myasthenia gravis?

- Nicotinic antagonists.
- Muscarinic agonists.
- Muscarinic antagonists.
- **Anticholinesterase agents.***

10) Atropa belladonna is a plant that contains atropine (a muscarinic antagonist). Which of the following drugs or classes of drugs will be useful in treating poisoning with belladonna?

- Malathion.
- **anticholinesterase (physiotigmine)***
- Muscarinic antagonists.
- Nicotinic antagonists

11) Sarin is a nerve gas that is an organophosphate cholinesterase inhibitor. Which of the following could be used as an antidote to sarin poisoning?

- Pilocarpine.
- Carbachol.
- **Atropine.***
- Physostigmine.
- Nicotine.

12) Which of the following is correct regarding ganglion blocking drugs?

- **Blockade of sympathetic ganglia could result in reduced blood pressure.***
- Blockade of parasympathetic ganglia could result in reduced heart rate.
- Nicotine is a nondepolarizing ganglion blocker.
- Atropine is a nondepolarizing ganglion blocker

13) All of the following are correct regarding adrenergic receptors, except:

- α_1 Receptors are primarily located on the postsynaptic membrane in the effector organs.
- α_2 Receptors are primarily located on the presynaptic sympathetic nerve terminals.
- β_1 Receptors are found mainly in the heart.
- **β_2 Receptors are found mainly in adipose tissue.***

14) An asthma patient was given a nonselective β agonist to relieve bronchoconstriction. Which of the following adverse effects would you expect to see in this patient?

- Bradycardia.
- Tachycardia.*
- Hypotension (reduction in blood pressure).
- Worsening bronchoconstriction

15) A β -blocker was prescribed for hypertension in a female asthma patient. After about a week of treatment, the asthma attacks got worse, and the patient was asked to stop taking the β -blocker. Which of the following β -blockers would you suggest as an alternative in this patient that is less likely to worsen her asthma?

- Propranolol.
- Metoprolol.*
- Labetalol.
- Carvedilol.
- more than one answer

16) which of these is incorrect?

- cholinesterase cleaves adrenaline *

17) which of these is anticholinesterase agent?

- physiotigmine*

18) which of these used as nasal decongestant?

- oxymetazoline *

19) mixed adrenergic agent?

- ephedrine*

20) used to treat hypertension?

- methyldopa*

21) warfarin antioxidant?

- vitamin k*

22) which of these is serotonin agonist?

- buspirone*

- 23) acetaminophen antioxidant
- N-acetylcysteine nac*
- 24) tetracyclin+calcium which of pharmacokinetic interactions?
- absorption*
- 25) which of these delays penicillin excretion?
- probenecid*
- 26) what type of synergism trimethoprim + sulfamethoxazole is?
- potentiation*
- 27) which of these is incorrect about atropine?
- it is antinicotinic*
- 28) sedative antihistaminic drug?
- promethazine*
- 29) used for Alzheimer patients?
- diazepam*
- 30) used for protecting the mucosal lining of the stomach during chronic NSAID treatment\induce labor induction?
- misoprostol*
- 31) used topical to treat open angle-glaucoma?
- timolol *
- 32) cox-2 selective inhibitor ?
- Celecoxib*
- 33) paracetamol can't be used as?
- Analgesic
 - anti-inflammatory*
 - more than answer
 - platelet aggregation
 - antipyretic

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Good Luck