

Pharmacology Questions
Respiratory System

- 1) Which of the following is not considered an objective diagnosis of asthma?
 - (a) Increase in inflammatory mediators and their metabolic products in body fluids
 - (b) Decreased forced expiratory flow rate (FEFR)
 - (c) Decreased FEV1/FVC
 - (d) Decrease in expired NO₂
 - (e) Heightened response to methacholine test

- 2) Which of the following is not true?
 - (a) a peak expiratory flow rate (PEFR) of 30-50% predicted indicates severe asthma
 - (b) in asthma, FEV1 falls before symptoms appear
 - (c) FEFR tests airflow during midexpiration & is more sensitive than FEV1
 - (d) a wheezy chest is more dangerous than a silent chest
 - (e) not treating asthma immediately can lead to poorer response to therapy if started late

- 3) Which of the following is not a quick relief medication for asthma?
 - (a) Epinephrine
 - (b) Ipratropium bromide
 - (c) Prednisolone
 - (d) Flunisolide

- 4) The following is not true of beta-2 adrenergic agonists:
 - (a) cause bronchodilation by decreasing cytosolic Ca²⁺
 - (b) cause hypotension
 - (c) decrease mucocilliary activity
 - (d) decrease bronchial vascular permeability
 - (e) increase heart rate

- 5) Which of the following can be administered orally and by inhalation?
 - (a) Epinephrine
 - (b) Albuterol
 - (c) Pirbuterol
 - (d) Terbutaline
 - (e) Isoproterenol

- 6) Which of the following is not associated with tachyphylaxis?
 - (a) Albuterol
 - (b) Pirbuterol
 - (c) Formeterol
 - (d) Isoetharine
 - (e) none of the above

- 7) Which of the following is not true about Salmeterol?
- (a) administered by inhalation
 - (b) long acting anti-asthmatic with a duration of 12 hours
 - (c) can lead to transient increase in P_aO_2 , especially in poorly ventilated lung tissue
 - (d) associated with improvement in patients homozygous for glycine at the B-16 locus of the beta-receptor
 - (e) none of the above
- 8) Which of the following is not true about Ipratropium bromide:
- (a) Anticholinergic agent administered by inhalation
 - (b) better bronchodilator than Atropine
 - (c) better anti-asthmatic than Epinephrine
 - (d) has no effect on mucocilliary clearance
 - (e) none of the above
- 9) The following is not true about corticosteroids:
- (a) have anti-inflammatory activity
 - (b) highly lipophilic
 - (c) decrease the quantity and viscosity of mucus secretions
 - (d) decrease the synthesis of adrenergic mediators
 - (e) decrease the transcription of genes coding for pro-inflammatory cytokines
- 10) Which of the following drugs acts through a cytosolic receptor?
- (a) Cromolyn sodium
 - (b) Beclomethasone
 - (c) Zafirlukast
 - (d) Omalizumab
 - (e) none of the above
- 11) Which of the following corticosteroids is used for quick relief from asthma?
- (a) Triamcinolone
 - (b) Dexamethasone
 - (c) Budesonide
 - (d) Beclomethasone
 - (e) Fluticasone
- 12) Which of the following is not true about Churg-Strauss syndrome?
- (a) a common inflammatory reaction observed after treatment with leukotriene pathway modifiers
 - (b) affects the skin, lungs, heart and CNS
 - (c) a common finding is systemic vasculitis with eosinophilic infiltration and granuloma formation
 - (d) a, b, c are true
 - (e) a, b, c are false

- 13) Which of the following combinations is false?
- (a) Omalizumab → monoclonal anti IgE
 - (b) Zileuton → Hepatotoxicity
 - (c) Cromolyn Na → No side effects
 - (d) Albuterol → Status asthmaticus
 - (e) Prednisolone → teratogenicity
- 14) Which of the following is associated with vestibular toxicity?
- (a) Isoniazide
 - (b) Linezolid
 - (c) Cycloserine
 - (d) Rifampin
 - (e) Streptomycine
- 15) Which of the following is NOT associated with hepatotoxicity?
- (a) Zileuton
 - (b) Isoniazide
 - (c) Rifampin
 - (d) Ethionamide
 - (e) Para-amino Salicylic acid (PAS)
- 16) Which of the following combinations is false?
- (a) Rifampin → Light-chain proteinuria
 - (b) Ethambutol → *M. avium* complex
 - (c) Linezolid → MDR mycobacteria
 - (d) Streptomycine → Brucellosis
 - (e) Para-amino Salicylic acid (PAS) → Optic neuropathy
- 17) Rifampin is indicated in all of the following EXCEPT:
- (a) Leprosy
 - (b) Staph. Osteomyelitis
 - (c) Plague
 - (d) *H. influenza*
 - (e) Endocarditis
- 18) Which of the following causes bone marrow suppression?
- (a) Ethionamide
 - (b) Streptomycine
 - (c) Cycloserine
 - (d) Rifambutin
 - (e) Linezolid
- 19) Which of the following asthma severity categories has a treatment including inhaled low-dose steroid, cromolyn, nedocromil, zafirlukast or zileuton?
- (a) Mild intermittent asthma
 - (b) Mild persistent asthma
 - (c) Moderated persistent asthma
 - (d) Severe persistent asthma
 - (e) Exercise-induced asthma

- 20) What is the first line drug for tuberculosis?
- (a) Rifampin
 - (b) Rifabutin
 - (c) Ethionamide
 - (d) Isoniazide
 - (e) Ethambutol
- 21) Which of the following drugs is most likely to be used for the treatment of *M. avium*?
- (a) Ethambutol
 - (b) Isoniazide
 - (c) Rifampin
 - (d) Erythromycine
 - (e) Streptomycine
- 22) A patient is taking some kind of RNA synthesis inhibitor for the treatment of a mycobacterium infection. They return back to the clinic extremely worried about recent events. They claim their urine, saliva, sweat, tears and feces are all reddish-orange in color. What drug is the patient likely taking?
- (a) Cycloserine
 - (b) Ethambutol
 - (c) Isoniazide
 - (d) Rifampin
 - (e) Streptomycine
- 23) Which of the following is a second-line drug for TB and works by blocking folate synthesis of tubercle bacilli?
- (a) Isoniazide
 - (b) Fluoroquinolones
 - (c) Para-amino salicylic acid (PAS)
 - (d) Cycloserine
 - (e) Ethionamide
- 24) Quick relief of asthma with a short acting bronchodilator (inhaled beta-2 agonist) is recommended for what stage of asthma progression?
- (a) Step 1: Mild intermittent
 - (b) Step 2: Mild persistent
 - (c) Step 3: Moderate persistent
 - (d) Step 4: Severe persistent
 - (e) All steps
- 25) Which of the following, along with Foremeterol, is a long acting anti-asthmatic?
- (a) Albuterol
 - (b) Salmeterol
 - (c) Metaproterenol
 - (d) Terbutaline
 - (e) Pirbuterol

- 26) Which of the following is a short acting leukotriene synthesis (5-lipoxygenase) inhibitor?
- (a) Zileuton
 - (b) Zafirlukast
 - (c) Montelukast
 - (d) Omalizumab
 - (e) Theophyline
- 27) The following is true about Theophyline EXCEPT:
- (a) adenosine receptor agonist
 - (b) causes tachycardia, jitterness and GIT irritation
 - (c) take only orally and intravenously
 - (d) used for long term control of asthma
 - (e) all of the above statements are true

Answer Key:

1- d	16- e
2- d	17- c
3- d	18- e
4- c	19- b
5- d	20- d
6- c	21- a
7- c	22- d
8- c	23- c
9- d	24- e
10- b	25- b
11- b	26- a
12- a	27- e
13- d	
14- e	
15- e	