Bronchodilator Therapy

Questions

1) What is the primary mechanism of action of beta-2 adrenergic agonists as bronchodilators?

A. Inhibition of acetylcholine release  
B. Stimulation of beta-1 receptors  
C. Relaxation of bronchial smooth muscles  
D. Antagonism of histamine receptors

2) Which of the following is a short-acting bronchodilator commonly used for quick relief of bronchoconstriction?

A. Formoterol  
B. Salmeterol  
C. Albuterol  
D. Ipratropium

3) Anticholinergic bronchodilators primarily act by:

A. Inhibiting leukotriene synthesis  
B. Blocking beta receptors  
C. Inhibiting acetylcholine receptors  
D. Stabilizing mast cells

4) What is the purpose of combination therapy involving both beta-agonists and anticholinergics in the treatment of respiratory conditions?

A. Potentiate side effects  
B. Reduce bronchodilator efficacy  
C. Provide additive bronchodilation  
D. Increase the risk of tolerance development
5) A patient is complaining of blurring of vision after using an inhaler, which inhaler medications can cause that

A. Short acting beta agonist  
B. long acting beta agonist  
C. Anticholinergics  
D. Steroids  

6) Which of the following is a common side effect associated with beta-agonist bronchodilators?

A. Dry mouth  
B. Bradycardia  
C. Hypertension  
D. Tachycardia  

7) What is the primary therapeutic goal of using bronchodilators in the treatment of chronic obstructive pulmonary disease (COPD)?

A. Decreasing airway inflammation  
B. Improving oxygenation  
C. Preventing bronchoconstriction  
D. Reducing mucus production  

8) Which class of bronchodilators is often recommended for nocturnal symptoms and prolonged duration of action?

A. Short-acting beta-agonists  
B. Long-acting beta-agonists  
C. Short-acting anticholinergics  
D. Long-acting anticholinergics  

9) What is the recommended technique for administering inhaled bronchodilators to ensure optimal therapeutic effects?

A. Inhale rapidly and deeply  
B. Exhale completely before inhalation  
C. Hold breath for 5 seconds after inhalation  
D. Exhale forcefully during inhalation
10) In the context of bronchodilator therapy, what is rebound bronchoconstriction, and how can it be minimized?

A. Sudden onset of bronchodilation  
B. Exaggerated bronchoconstriction after medication wears off  
C. Allergic reaction to bronchodilators  
D. Development of tolerance to bronchodilators