

25- A 22-year-old woman presents with episodic dyspnea, chest tightness, and cough. She was seen several months ago for these symptoms at an urgent care clinic and was given an albuterol inhaler, which provided symptomatic relief. She has been using it over five times per week and at least two times per week at night when she awakens with symptoms. Spirometry reveals an FEV1 65% predicted, FVC 80% predicted, and FEV1/FVC 0.65. All of these measurements improve significantly following administration of an inhaled bronchodilator. Which of the following medications is indicated for daily use for improved disease control?

- A. Anti-IgE therapy
- B. Cromolyn
- C. Inhaled long-acting anticholinergic
- D. Inhaled corticosteroid
- E. Inhaled long-acting β 2-agonist

26- A 38-year-old man with only a 5-pack-year history of smoking comes to the pulmonary clinic because of worsening dyspnea on exertion. On exam, he has expiratory wheezes and a long expiratory phase. Pulmonary function testing reveals airflow obstruction without a bronchodilator response, while a plain chest radiograph demonstrates large lung volumes, flat diaphragms, and increased lucency in the bilateral lower lung zones. Which of the following statements is true regarding this patient?

- A. He is not at risk for extrapulmonary disease.
- B. He should be tested for α 1-antitrypsin deficiency.
- C. He is likely a heterozygote for the Z gene.
- D. There is no effective treatment.
- E. Unilateral emphysema is commonly seen in this disease.

27- A 63-year-old woman is evaluated for worsening dyspnea on exertion over an 18-month period. She is a retired teacher with a 30-year history of smoking. Her spirometry reveals an FEV1 59% predicted, FVC 78% predicted, and FEV1/FVC ratio 0.62 with no response to inhaled bronchodilators. A chest radiograph demonstrates large lung volumes, a large retrosternal airspace, and flattened diaphragms. Which of the following would most likely be seen on further pulmonary function testing in this patient?

- A. Decreased functional residual capacity
- B. Decreased RV/TLC ratio
- C. Decreased total lung capacity
- D. Increased diffusing capacity for carbon monoxide
- E. Increased residual volume