

1. Which client is at greatest risk for the development of a pulmonary embolism?

- a. 30-year-old athlete who lifts weights and was diagnosed with a pneumothorax yesterday
- b. 50-year-old woman who has fragile capillaries and bruises very easily
- c. -
- d. 40-year-old woman who has used oral contraceptives for the past 15 years and who had abdominal surgery yesterday for cancer
- e. 60-year-old man who caught his right hand in a piece of machinery and has five broken fingers, with extensive soft tissue damage

2. Which diagnostic test most specifically confirms the presence of a pulmonary embolism?

- a. -
- b. Pulmonary angiography
- c. Arterial blood gases
- d. Ventilation-perfusion lung scan
- e. Chest x-ray

3. Which statement made by a client's spouse indicates the need for more teaching about prevention of a pulmonary embolism at home after major abdominal surgery?

- a. While he is awake, I will make sure he gets up and walks for at least 5 minutes every 2 hours.
- b. -
- c. I will check his breathing rate and level twice a day.
- d. He is prone to constipation, so I will increase the amount of fiber in his meals every day.
- e. I will massage his feet and legs twice a day to help blood return.

4. Which set of arterial blood gases would the nurse expect to find in a client who developed a pulmonary embolism 15 minutes ago?

- a. pH 7.30, HCO<sub>3</sub>? 28 mEq/L, PCO<sub>2</sub> 65 mm Hg, PO<sub>2</sub> 75 mm Hg
- b. pH 7.30, HCO<sub>3</sub>? 22 mEq/L, PCO<sub>2</sub> 60 mm Hg, PO<sub>2</sub> 66 mm Hg
- c. -
- d. pH 7.47, HCO<sub>3</sub>? 23 mEq/L, PCO<sub>2</sub> 25 mm Hg, PO<sub>2</sub> 82 mm Hg
- e. pH 7.38, HCO<sub>3</sub>? 22 mEq/L, PCO<sub>2</sub> 45 mm Hg, PO<sub>2</sub> 96 mm Hg

5. Which set of arterial blood gases would the nurse expect to find in a client who developed a pulmonary embolism 6 hours ago?

- a. pH 7.47, HCO<sub>3</sub>? 23 mEq/L, PCO<sub>2</sub> 25 mm Hg, PO<sub>2</sub> 82 mm Hg
- b. -
- c. pH 7.30, HCO<sub>3</sub>? 28 mEq/L, PCO<sub>2</sub> 65 mm Hg, PO<sub>2</sub> 75 mm Hg
- d. pH 7.38, HCO<sub>3</sub>? 22 mEq/L, PCO<sub>2</sub> 45 mm Hg, PO<sub>2</sub> 96 mm Hg
- e. pH 7.30, HCO<sub>3</sub>? 22 mEq/L, PCO<sub>2</sub> 60 mm Hg, PO<sub>2</sub> 66 mm Hg

6. A nurse discovers that a physician has prescribed that the client with a pulmonary embolism be started on oral warfarin while still receiving intravenous heparin. What is the nurse's best action?

- a. Remind the physician that two anticoagulants should not be administered concurrently.
- b. Monitor the client for clinical manifestations of internal or external bleeding at least every 2 hours.
- c. Administer the medications as prescribed
- d. Hold the dose of warfarin until the client's partial thromboplastin time is the same as the control value.
- e. -

7. Which statement, made by the client who is taking warfarin (Coumadin) daily to prevent blood clots from forming in deep veins, indicates a need for further discussion regarding this therapy?

- a. I have two pairs of antiembolic stockings so that one pair can be washed each day.
- b. On hot days, I make sure I drink at least two quarts of water.
- c. I have been eating more salads and other green, leafy vegetables to prevent constipation.
- d. Instead of a safety razor, I have been using an electric shaver to shave.
- e. -

8. Which client is at greatest risk for ARDS?

- a. The 78-year-old with chronic congestive heart failure and pulmonary edema
- b. The 62-year-old with COPD who has pneumonia
- c. The 22-year-old who received 10 units of blood after a motor vehicle crash**
- d. The 24-year-old with asthma who has not taken any of her asthma medications for 2 weeks
- e. -

9. The client at risk for acute respiratory distress syndrome (ARDS) has become cyanotic and is diaphoretic. What assessment technique should the nurse perform next?

- a. Measure the blood pressure in both arms.
- b. -
- c. Compare current ECG tracing with baseline measurement.
- d. Auscultate breath sounds bilaterally.
- e. Measure pulse oximetry.**

10. What is the most important intervention for the client with ARDS?

- a. Oxygen therapy**
- b. Bronchodilators
- c. -
- d. Antibiotic therapy
- e. Diuretic therapy

11. The client with respiratory difficulty has a V/Q ratio of 0.5. What is the significance of this value?

- a. The ratio is low; ventilation is exceeding perfusion.
- b. The ratio is high; perfusion is exceeding ventilation.
- c. -
- d. The ratio is low; perfusion is exceeding ventilation.**
- e. The ratio is high; ventilation is exceeding perfusion.

12. Which of the following clients could be expected to require mechanical ventilation longterm?

- a. -
- b. 24-year-old with muscular dystrophy**
- c. 45-year-old with morphine overdose
- d. 65-year-old with bilateral bacterial pneumonia
- e. 27-year-old with status asthmaticus

13. What is the main purpose of a negative-pressure ventilator?

- a. Delivering an individualized preset tidal volume to the lower respiratory tract
- b. Healing diseased lung tissue
- c. -
- d. Assisting ventilation to healthy lungs by mimicking normal chest pressures**
- e. Relieving hypoxemia by opening obstructed airways

14. A nurse is starting a new shift and assessing the client who has an oral endotracheal tube in place. Which finding requires immediate intervention?

- a. -
- b. The endotracheal tube is taped to the lower jaw.**
- c. The endotracheal tube is midline in the mouth.
- d. The client has hydrocolloid membrane on the skin of the cheeks
- e. The client has been intubated for four days.

15. The pilot balloon on the endotracheal tube of a client being mechanically ventilated is completely deflated. What is the consequence of this situation?

- a. -
- b. The client's lungs may not be receiving the set tidal volume.**
- c. The client has no airway and must be reintubated.
- d. The client's residual volume is too low.
- e. The endotracheal tube is too small for the client.

16. Which intervention promotes a more normal V/Q match for a client receiving mechanical

ventilation?

- a. Auscultating the lungs bilaterally every 4 hours for the presence of crackles, wheezes, and other abnormal breath sounds
- b. Ensuring that the pilot balloon on the endotracheal tube cuff is inflated to its maximal pressure
- c. -

**d. Positioning the client so that the healthier lung is dependent to the more diseased lung**

- e. Administering the prescribed muscle-paralyzing agents

17. Which assessment finding alerts the nurse to the possibility that the intrathoracic pressure in a mechanically ventilated client is too high?

- a. Low-pressure alarm sounds on the ventilator
- b. Increased diaphragmatic excursion

**c. Hypotension**

- d. Pulse oximetry value of 96%
- e. -

18. The client being mechanically ventilated has become more restless over the course of the shift. What is the nurse's best action?

- a. Administer a dose of pain medication or sedative.
- b. Darken the room and ask visitors to leave.
- c. -

**d. Check the client's oxygen saturation by pulse oximetry.**

- e. Document the observation as the only action.

19. The pressure reading on the ventilator of a client receiving mechanical ventilation is fluctuating widely. What is the correct action to take for this problem?

- a. -
- b. Assess the client's oxygen saturation to determine the adequacy of oxygenation.**
- c. Increase the tidal volume by at least 100 mL or by the client's weight in kg.
- d. Disconnect the ventilator from the client and use a manual resuscitation bag until the machine has been checked.
- e. Determine whether there is an air leak in the client's endotracheal tube cuff.