

Lung Isolation Training Study **PRE-test**

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Study #871303

Today's Date _____

Level of training: Medical student Intern CA-1 Resident

1. Which most accurately describes the reasons for isolating a lung?
 - A. To protect one lung from being contaminated by the other lung
 - B. To facilitate surgical exposure for non-cardiac operations in the chest
 - C. For minimally invasive cardiac surgery
 - D. Pulmonary resection
 - E. All the above

2. Which of the following anatomic features are important in performing one-lung isolation?
 - A. Tracheal rings posteriorly
 - B. Longitudinal fibers anteriorly
 - C. Carina
 - D. Larynx
 - E. The cricoid cartilage

3. Which of the following statements is true?
 - A. The carina is the part where the trachea bifurcates into the right and left mainstem bronchi
 - B. The right mainstem bronchus lies in a more horizontal plane
 - C. The average length of the right main bronchus is 1.9 cm long in women and 1.5 cm long in men
 - D. The left mainstem bronchus lies in a more vertical plane
 - E. The average length of left main bronchus is 4.9 cm in both men and women

4. Which of these is an absolute indication for lung isolation?
 - A. Surgical exposure with deflation of one lung
 - B. Thoracic aortic surgery
 - C. Mediastinal surgery
 - D. Esophageal surgery
 - E. Protection of one lung from the other lung (contamination with blood, pus, lavage fluid, etc.)

5. These are all devices used for lung isolation except
 - A. Double lumen endotracheal tube
 - B. Uniblocker
 - C. Univent
 - D. Arndt endobronchial blocker
 - E. Laryngeal mask airway

6. A patient comes in for a major surgical procedure involving one lung ventilation. Which would be the best option for patient who will remain intubated and transferred to the ICU after the procedure?
- A. Left sided double lumen tube
 - B. Right sided double lumen tube
 - C. Bronchial blocker
 - D. None of the above
 - E. All of the above
7. How do you confirm placement of the lung isolation device?
- A. By auscultation only
 - B. By fiberoptic bronchoscopy only
 - C. By auscultation and fiberoptic bronchoscopy
 - D. By using a videolaryngoscope
 - E. Placement confirmation is not necessary
8. A patient on one lung ventilation suddenly desaturates and the SpO₂ drops to 88%. How would you manage the hypoxemia during one-lung ventilation?
- A. Check ventilator, circuit and catheter mount
 - B. Check tube position
 - C. Apply CPAP or entrain oxygen to nondependent lung
 - D. Perform recruitment maneuver and apply PEEP to dependent lung
 - E. All the above
9. Which of the below are advantages of bronchial blockers compared to double lumen endotracheal tubes?
- A. Can be used for difficult intubations
 - B. Can be used in patients who are already intubated
 - C. Reduced risk of reintubation after surgery
 - D. Can be used in patients with tracheostomies
 - E. All of the above
10. Which statement about physiology of one lung ventilation is false?
- A. Ventilation and perfusion are well matched anatomically
 - B. Dependent portions of the lungs receive both greater blood flow (a result of gravity) and greater ventilation (from gravitational effects on lung compliance)
 - C. The initiation of OLV stops all ventilation to one lung
 - D. The dependent lung receives only half the same minute ventilation as both lungs
 - E. An obligatory 50% R-L shunt through the nondependent lung occurs during OLV