Lung Isolation Training Study **POST-test**
Principal Investigator: Mary Arthur, MD, FASE
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. Which of the statements below is true?
   A. The left lung is 10% smaller than the right lung
   B. The right lung is slightly smaller than the left lung
   C. The left lung is 50% smaller than the right lung
   D. The right lung is 50% smaller than the left lung
   E. The left and right lungs are the same
6. 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

7. A patient on one lung ventilation suddenly desaturates and the SpO\textsubscript{2} 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

8. 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

9. 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

10. 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