

High Frequency Oscillatory Ventilation – Post-Test

Directions: Select the letter corresponding to the MOST CORRECT response.

1. Specific indications for high-frequency oscillatory ventilation (HFOV) in neonates includes all of the following, EXCEPT:
 - A. respiratory distress syndrome
 - B. meconium aspiration
 - C. persistent pulmonary hypertension
 - D. apnea of prematurity
2. The rationale for implementation of HFOV after failure of conventional ventilation includes which of the following?
 - A. decreased ventilator-induced lung injury
 - B. increased minute ventilation
 - C. increased FIO₂
 - D. decreased mean airway pressure
3. Which of the following ventilators have the capability for HFOV?
 - A. SensorMedics 3100b
 - B. Drager Babylog
 - C. Infant Star 950
 - D. all of the above
4. The number of ribs visible on the chest radiograph is one parameter that is used to adjust which HFOV control?
 - A. bias flow
 - B. mean airway pressure
 - C. frequency
 - D. amplitude
5. Which HFOV control is adjusted in response to observation of the chest wiggle?
 - A. inspiratory time %
 - B. mean airway pressure
 - C. amplitude
 - D. frequency

6. Which HFOV control is similar to the tidal volume control on a conventional ventilator?

- A. bias flow
- B. inspiratory time %
- C. amplitude
- D. frequency

7. The initial frequency setting range for adults is:

- A. 5-6 Hz
- B. 16-20 breaths/min
- C. 15-20 Hz
- D. 10-12 Hz

8. The PaCO₂ for a patient ventilated with HFOV will be increased by making which adjustment(s)?

- A. increasing the rate
- B. increasing the amplitude
- C. increasing inspiratory time %
- D. all of the above

9. The PaO₂ for a patient ventilated with HFOV will be increased by making which adjustment(s)?

- A. increasing the mean airway pressure
- B. increasing the amplitude
- C. increasing inspiratory time %
- D. all of the above

10. If the bias flow on an oscillatory ventilator is inadequate, which of the following will result?

- A. inability to reach adjusted rate
- B. inability to reach adjusted amplitude
- C. inability to reach adjusted mean airway pressure
- D. dampening of exhalation, with increased PaCO₂