

## Answers to Assessment in Action and Points to Ponder

### Section 2: Airway

#### Chapter 7: Airway

##### *Assessment in Action*

1. B. Brain damage not likely

A patient who has 0 to 4 minutes of apnea is not likely to have brain damage.

2. C. agonal respirations.

A patient with occasional, gasping breaths has agonal respirations. Cheyne-Stokes respirations indicate an irregular breathing pattern seen with head injuries. Kussmaul's respirations involve a fast, deep pattern seen with diabetic ketoacidosis. Retractions are movements in which the skin pulls in around the ribs during inspiration.

3. B. Jaw thrust

The jaw thrust is the best way to open the airway of a patient with unknown etiology. You wouldn't want to use the head tilt-chin lift or nasal airway in case there is a head injury.

4. D. All of the above

It is very important to squeeze the BVM device at a slow, firm rate and not force air into the patient because this may cause gastric distention. Providing a good seal will ensure adequate ventilation and it is very important to breathe for the patient at an appropriate rate. It is easy to get lost in the excitement of the call and ventilate the patient 40 to 50 times a minute, which can cause more problems for the patient.

5. B. 16%

The amount of oxygen on exhalation is 16%.

6. D. A and B only

Cricoid pressure, also called the Sellick maneuver, is the most appropriate way to initially secure an airway. The best method to secure an airway is endotracheal intubation when that can be performed. Placing the patient in the recovery position would not be appropriate.

7. A. From the patient's earlobe to the corner of the mouth

The correct way to measure an oral airway is from the patient's earlobe to the corner of the mouth.

8. D. Repeat immediately after initial suctioning if needed

It is recommended that you attempt to ventilate and reoxygenate the patient before suctioning the patient again.

9. Inadequate ventilation can be recognized by minimal or no chest rise, ventilations that are given too fast or too slow, and a pulse rate does not return to normal. Pulse oximetry and skin color are also good indications of whether ventilation is adequate.

10. The possible causes are a dislodged airway, obstruction to the airway, and tension pneumothorax.

11. Take  $(1500-200) \times 0.16 / 15 = 13.86$  minutes

*Points to Ponder*

Placing a patient on a pulse oximeter will help you determine the amount of oxygen bound to hemoglobin on the red blood cell. In other words, it will help you determine if the patient is receiving enough oxygen throughout the body. This will give you an indication of how well the patient is perfusing and whether supplemental oxygen should be used. Suctioning is necessary because of the secretions in the airway, which caused the patient to have gurgling respirations. The lack of adequate respirations accompanied by increased secretions in the airway will most likely decrease oxygen saturation and make the patient become hypoxic, as indicated by the cyanosis around the lips.

To reverse hypoxia, the airway needs to be patent. Suctioning will remove the secretions that were obstructing the airway. If possible, the patient should be moved from a supine position to a semi-Fowler's position to make the work of breathing easier. This positioning will also decrease the amount of secretion formation in the airways. The oxygen rate needs to be changed from low flow to high-flow oxygen via nonrebreathing mask. If the patient's mentation, skin color, or oxygen saturation does not improve, begin artificial respirations via a BVM device. Remember to always use an airway adjunct whenever using a BVM device. Also consider the rate and volume of air when delivering oxygen via a BVM device. An increase in rate and tidal volume may inadvertently cause gastric distention. If you observe abdominal distention, decrease the amount of volume that is given. You may also need to use cricoid pressure to prevent gastric distention.