Import Settings:

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Information Field: Complexity

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Highest Answer Letter: D

Multiple Keywords in Same Paragraph: No

**Chapter: Airway Management and Ventilation - Airway Management and Ventilation - TBNK**

**Multiple Choice**

1. The upper airway of an adult consists of all the structures above the:

A) carina.

B) bronchus.

C) glottis.

D) cricoid ring.

Ans: C

Complexity: Easy

Ahead: Review of Airway Anatomy

Subject: Airway Management and Ventilation

Page: 776

Feedback: Review of Airway Anatomy, page 776

2. The \_\_\_\_\_\_\_\_\_\_\_\_\_\_ is the lowest portion of the pharynx and opens into the larynx anteriorly and the esophagus posteriorly.

A) oropharynx

B) nasopharynx

C) hyperpharynx

D) laryngopharynx

Ans: D

Complexity: Easy

Ahead: Review of Airway Anatomy

Subject: Airway Management and Ventilation

Page: 776

Feedback: Review of Airway Anatomy, page 776

3. Anatomically, the \_\_\_\_\_\_\_\_ is directly anterior to the glottic opening.

A) thyroid gland

B) vallecular space

C) cricoid cartilage

D) thyroid cartilage

Ans: D

Complexity: Easy

Ahead: Review of Airway Anatomy

Subject: Airway Management and Ventilation

Page: 776

Feedback: Review of Airway Anatomy, page 776

4. Paramedics must use extreme caution when accessing the airway via the cricothyroid membrane because:

A) the cricothyroid membrane is highly vascular and tends to bleed profusely when it is incised.

B) the cricothyroid membrane is bordered laterally and inferiorly by the highly vascular thyroid gland.

C) cricothyrotomy is associated with a high incidence of inadvertent laceration of a carotid artery.

D) the thyroid cartilage is smaller than the cricoid cartilage and makes the cricothyroid membrane difficult to locate.

Ans: B

Complexity: Moderate

Ahead: Review of Airway Anatomy

Subject: Airway Management and Ventilation

Page: 777

Feedback: Review of Airway Anatomy, page 777

5. The \_\_\_\_\_\_\_\_\_\_\_\_ are pyramid-like structures that form the posterior attachment of the vocal cords.

A) palatine tonsils

B) piriform fossae

C) arytenoid cartilages

D) hypoepiglottic ligaments

Ans: C

Complexity: Easy

Ahead: Review of Airway Anatomy

Subject: Airway Management and Ventilation

Page: 777

Feedback: Review of Airway Anatomy, page 777

6. Tenting of the skin under the jaw often occurs when airway devices are inadvertently inserted into the:

A) piriform fossae.

B) vallecular space.

C) laryngopharynx.

D) hypopharyngeal space.

Ans: A

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 848

Feedback: Advanced Airway Management, page 848

7. Laryngospasm is defined as:

A) aspiration of foreign material.

B) spasmodic closure of the vocal cords.

C) voluntary closure of the glottic opening.

D) spontaneous collapsing of the trachea.

Ans: B

Complexity: Easy

Ahead: Airway Obstructions

Subject: Airway Management and Ventilation

Page: 802

Feedback: Airway Obstructions, page 802

8. Atelectasis occurs when:

A) the alveoli are overinflated and rupture.

B) a deficiency of surfactant causes alveolar collapse.

C) deoxygenated blood diffuses across the alveoli.

D) surface tension on the alveolar walls is decreased.

Ans: B

Complexity: Easy

Ahead: Continuous Positive Airway Pressure

Subject: Airway Management and Ventilation

Page: 817

Feedback: Continuous Positive Airway Pressure, page 817

9. When a patient's respirations are too rapid and too shallow:

A) the majority of inhaled air lingers in areas of physiologic dead space.

B) inhaled air may only reach the anatomic dead space before being exhaled.

C) the increase in tidal volume will compensate for a rapid respiratory rate.

D) minute volume increases because a larger amount of air reaches the lungs.

Ans: B

Complexity: Moderate

Ahead: Ventilatory Support

Subject: Airway Management and Ventilation

Page: 811

Feedback: Ventilatory Support, page 811

10. The fraction of inspired oxygen (FIO2) increases with:

A) increased tidal volume.

B) forceful inhalation.

C) supplemental oxygen.

D) an increase in respirations.

Ans: C

Complexity: Easy

Ahead: Ventilation, Oxygenation, and Respiration

Subject: Airway Management and Ventilation

Page: 777

Feedback: Ventilation, Oxygenation, and Respiration, page 777

11. The physical act of moving air into and out of the lungs is called:

A) respiration.

B) inhalation.

C) ventilation.

D) exhalation.

Ans: C

Complexity: Easy

Ahead: Ventilation, Oxygenation, and Respiration

Subject: Airway Management and Ventilation

Page: 778

Feedback: Ventilation, Oxygenation, and Respiration, page 778

12. All of the following factors would increase a person's respiratory rate, EXCEPT:

A) narcotic analgesic use.

B) increased metabolism.

C) the use of amphetamines.

D) a rise in body temperature.

Ans: A

Complexity: Moderate

Ahead: Pathophysiology of Respiration

Subject: Airway Management and Ventilation

Pages: 779–780

Feedback: Pathophysiology of Respiration, pages 779–780

13. Negative pressure ventilation occurs when:

A) the diaphragm ascends and the intercostal muscles retract.

B) air is drawn into the lungs when intrathoracic pressure decreases.

C) pressure within the chest decreases and air is forced from the lungs.

D) the phrenic nerves stop sending messages to the diaphragm.

Ans: B

Complexity: Moderate

Ahead: Pathophysiology of Respiration

Subject: Airway Management and Ventilation

Page: 781

Feedback: Pathophysiology of Respiration, page 781

14. In contrast to negative pressure ventilation, positive pressure ventilation occurs when:

A) the diaphragm contracts.

B) air is drawn into the lungs.

C) intrathoracic pressure falls.

D) air is forced into the lungs.

Ans: D

Complexity: Easy

Ahead: Pathophysiology of Respiration

Subject: Airway Management and Ventilation

Page: 781

Feedback: Pathophysiology of Respiration, page 781

15. The exchange of oxygen and carbon dioxide between the alveoli and the blood in the pulmonary capillaries is called:

A) internal respiration.

B) external respiration.

C) pulmonary ventilation.

D) intrapulmonary shunting.

Ans: B

Complexity: Easy

Ahead: Pathophysiology of Respiration

Subject: Airway Management and Ventilation

Pages: 781–782

Feedback: Pathophysiology of Respiration, pages 781–782

16. Which of the following statements regarding anemia is correct?

A) Anemia results in a decreased ability of the blood to carry oxygen.

B) Patients with anemia have a chronically low level of hemoglobin.

C) Anemia is a condition caused exclusively by a deficiency of iron.

D) Anemic patients typically present with flushed skin and bradycardia.

Ans: A

Complexity: Moderate

Ahead: Pathophysiology of Respiration

Subject: Airway Management and Ventilation

Page: 781

Feedback: Pathophysiology of Respiration, page 781

17. A patient with respiratory splinting:

A) is often tachypneic with deep breathing.

B) is holding his or her arm against the chest.

C) is breathing shallowly to alleviate chest pain.

D) has an increased tidal volume due to a chest injury.

Ans: C

Complexity: Moderate

Ahead: Pathophysiology of Respiration

Subject: Airway Management and Ventilation

Page: 780

Feedback: Pathophysiology of Respiration, page 780

18. Intrapulmonary shunting is defined as:

A) the return of unoxygenated blood to the left side of the heart.

B) a decrease in the surface area of the alveoli caused by damage.

C) a condition in which too much carbon dioxide is eliminated.

D) failure of blood to bypass an obstruction in a pulmonary artery.

Ans: A

Complexity: Moderate

Ahead: Pathophysiology of Respiration

Subject: Airway Management and Ventilation

Page: 781

Feedback: Pathophysiology of Respiration, page 781

19. All of the following conditions will cause an increase in the circulating levels of carbon dioxide in the blood, EXCEPT:

A) lactic acidosis.

B) increased metabolism.

C) anaerobic metabolism.

D) acute hyperventilation.

Ans: D

Complexity: Moderate

Ahead: Pathophysiology of Respiration

Subject: Airway Management and Ventilation

Page: 780

Feedback: Pathophysiology of Respiration, page 780

20. Hypoventilation causes a(n) \_\_\_\_\_\_\_\_\_\_ and leads to \_\_\_\_\_\_\_\_\_\_.

A) increased minute volume, hypocapnia

B) decreased minute volume, hypocapnia

C) increased minute volume, hypercapnia

D) decreased minute volume, hypercapnia

Ans: D

Complexity: Moderate

Ahead: Pathophysiology of Respiration

Subject: Airway Management and Ventilation

Page: 780

Feedback: Pathophysiology of Respiration, page 780

21. Normally, an adult at rest should have respirations that:

A) are 20 to 24 breaths/min with adequate chest rise.

B) follow a regular pattern of inhalation and exhalation.

C) have a slightly reduced tidal volume and normal rate.

D) are adequate to sustain a heart rate of 80 beats/min.

Ans: B

Complexity: Moderate

Ahead: Patient Assessment: Airway Evaluation

Subject: Airway Management and Ventilation

Page: 783

Feedback: Patient Assessment: Airway Evaluation, page 783

22. An adult patient with an abnormal respiratory rate should:

A) be given oxygen at 4 L/min with a nasal cannula.

B) be assessed immediately for heart rate abnormalities.

C) be evaluated for other signs of inadequate ventilation.

D) receive ventilatory assistance with a bag-mask device.

Ans: C

Complexity: Moderate

Ahead: Patient Assessment: Airway Evaluation

Subject: Airway Management and Ventilation

Page: 783

Feedback: Patient Assessment: Airway Evaluation, page 783

23. The condition in which the body's tissues and cells do not receive enough oxygen is called:

A) anoxia.

B) hypoxia

C) asphyxia.

D) hypoxemia.

Ans: B

Complexity: Easy

Ahead: Patient Assessment: Airway Evaluation

Subject: Airway Management and Ventilation

Page: 783

Feedback: Patient Assessment: Airway Evaluation, page 783

24. A patient with orthopnea:

A) has blood-tinged sputum.

B) awakens at night with dyspnea.

C) has dyspnea while lying flat.

D) is breathing through pursed lips.

Ans: C

Complexity: Easy

Ahead: Patient Assessment: Airway Evaluation

Subject: Airway Management and Ventilation

Page: 783

Feedback: Patient Assessment: Airway Evaluation, page 783

25. Asymmetric chest wall movement is characterized by:

A) chest rise that is minimally visible.

B) one side of the chest moving less than the other.

C) alternating movement of the chest and abdomen.

D) a part of the chest wall that bulges during exhalation.

Ans: B

Complexity: Easy

Ahead: Patient Assessment: Airway Evaluation

Subject: Airway Management and Ventilation

Page: 784

Feedback: Patient Assessment: Airway Evaluation, page 784

26. When ventilating a patient with a bag-mask device, you note increased compliance. This means that:

A) you are meeting resistance when ventilating.

B) air can be forced into the lungs with relative ease.

C) a lower airway obstruction should be suspected.

D) the patient likely has an upper airway obstruction.

Ans: B

Complexity: Moderate

Ahead: Airway Obstructions

Subject: Airway Management and Ventilation

Page: 804

Feedback: Airway Obstructions, page 804

27. In which of the following conditions would you be LEAST likely to encounter pulsus paradoxus?

A) Moderate asthma attack

B) Pericardial tamponade

C) Tension pneumothorax

D) Decompensating COPD

Ans: A

Complexity: Moderate

Ahead: Patient Assessment: Airway Evaluation

Subject: Airway Management and Ventilation

Page: 784

Feedback: Patient Assessment: Airway Evaluation, page 784

28. Which of the following clinical findings would be of LEAST significance in a patient experiencing respiratory distress?

A) Fever of 102.5°F

B) Productive cough

C) Chest pain or pressure

D) BP of 148/94 mm Hg

Ans: D

Complexity: Moderate

Ahead: Patient Assessment: Airway Evaluation

Subject: Airway Management and Ventilation

Pages: 784–785

Feedback: Patient Assessment: Airway Evaluation, pages 784–785

29. Which of the following findings is MOST significant in a patient with acute respiratory distress?

A) A regular heart rate of 110 beats/min

B) A family history of pulmonary embolism

C) Prior ICU admission for the same problem

D) Low-grade fever and flu-like symptoms

Ans: C

Complexity: Moderate

Ahead: Patient Assessment: Airway Evaluation

Subject: Airway Management and Ventilation

Page: 784

Feedback: Patient Assessment: Airway Evaluation, page 784

30. A patient with a suppressed cough mechanism:

A) should be intubated at once.

B) is at serious risk for aspiration.

C) often requires ventilation support.

D) should have continuous airway suctioning.

Ans: B

Complexity: Moderate

Ahead: Patient Assessment: Airway Evaluation

Subject: Airway Management and Ventilation

Page: 785

Feedback: Patient Assessment: Airway Evaluation, page 785

31. Biot respirations are characterized by:

A) slow, shallow irregular respirations or occasional gasping breaths.

B) an irregular pattern of breathing with intermittent periods of apnea.

C) deep, gasping respirations that are often rapid but may be slow.

D) increased respirations followed by apneic periods.

Ans: B

Complexity: Easy

Ahead: Patient Assessment: Airway Evaluation

Subject: Airway Management and Ventilation

Page: 785

Feedback: Patient Assessment: Airway Evaluation, page 785

32. Which of the following abnormal respiratory patterns generally do NOT suggest brain injury or cerebral anoxia?

A) Biot respirations

B) Agonal respirations

C) Kussmaul respirations

D) Cheyne-Stokes respirations

Ans: C

Complexity: Moderate

Ahead: Patient Assessment: Airway Evaluation

Subject: Airway Management and Ventilation

Page: 785

Feedback: Patient Assessment: Airway Evaluation, page 785

33. Pulse oximetry is used to measure the:

A) percentage of hemoglobin that is saturated with oxygen.

B) exchange of oxygen and carbon dioxide at the cellular level.

C) percentage of carbon dioxide that is eliminated from the body.

D) amount of oxygen dissolved in the plasma portion of the blood.

Ans: A

Complexity: Easy

Ahead: Quantifying Ventilation and Oxygenation

Subject: Airway Management and Ventilation

Page: 787

Feedback: Quantifying Ventilation and Oxygenation, page 787

34. The pulse oximeter would be LEAST useful when:

A) identifying deterioration of the cardiac patient.

B) assessing vascular status in orthopaedic trauma.

C) monitoring oxygenation status during intubation.

D) determining the patient’s baseline respiratory rate.

Ans: D

Complexity: Moderate

Ahead: Quantifying Ventilation and Oxygenation

Subject: Airway Management and Ventilation

Page: 788

Feedback: Quantifying Ventilation and Oxygenation, page 788

35. Which of the following factors would MOST likely produce a falsely normal pulse oximetry reading?

A) Carboxyhemoglobin

B) Peripheral vasodilation

C) A dimly lit environment

D) Heart rate above 120 beats/min

Ans: A

Complexity: Moderate

Ahead: Quantifying Ventilation and Oxygenation

Subject: Airway Management and Ventilation

Page: 789

Feedback: Quantifying Ventilation and Oxygenation, page 789

36. An increasing peak expiratory flow reading in a patient with respiratory distress suggests that the patient is:

A) experiencing worsened hypoxemia.

B) no longer experiencing bronchospasm.

C) responding to bronchodilator therapy.

D) in need of further bronchodilator therapy.

Ans: C

Complexity: Moderate

Ahead: Quantifying Ventilation and Oxygenation

Subject: Airway Management and Ventilation

Page: 789

Feedback: Quantifying Ventilation and Oxygenation, page 789

37. The average peak expiratory flow rate in a healthy adult is approximately:

A) 450 mL.

B) 550 mL.

C) 650 mL.

D) 750 mL.

Ans: B

Complexity: Moderate

Ahead: Quantifying Ventilation and Oxygenation

Subject: Airway Management and Ventilation

Page: 790

Feedback: Quantifying Ventilation and Oxygenation, page 790

38. When obtaining a peak expiratory flow rate for a patient with acute bronchospasm, you should:

A) ask the patient to fully exhale before blowing into the mouthpiece.

B) perform the test three times and take the best rate of the three readings.

C) administer one bronchodilator treatment before obtaining the first reading.

D) ensure that the patient is in a supine position to obtain an accurate reading.

Ans: B

Complexity: Moderate

Ahead: Quantifying Ventilation and Oxygenation

Subject: Airway Management and Ventilation

Page: 790

Feedback: Quantifying Ventilation and Oxygenation, page 790

39. It would NOT be appropriate to place a patient in the recovery position if he or she:

A) is tachycardic.

B) is semiconscious.

C) has not been injured.

D) is breathing shallowly.

Ans: D

Complexity: Moderate

Ahead: Airway Management

Subject: Airway Management and Ventilation

Pages: 794–795

Feedback: Airway Management, pages 794–795

40. If you suspect that an unconscious patient has experienced a spinal injury, you should open his or her airway by:

A) applying firm pressure to the patient's forehead and tilting the head back.

B) placing your fingers behind the angle of the jaw and lifting the jaw forward.

C) carefully grasping the tongue and jaw and slowly lifting the jaw forward.

D) lifting up on the jaw while placing the head in a slightly extended position.

Ans: B

Complexity: Moderate

Ahead: Airway Management

Subject: Airway Management and Ventilation

Pages: 795–796

Feedback: Airway Management, page 795–796

41. If several attempts to open a patient's airway with the jaw-thrust maneuver are unsuccessful, you should:

A) carefully tilt the patient's head back while lifting up on the chin.

B) maintain the patient's head in a neutral position and intubate at once.

C) insert an oropharyngeal airway and reattempt the jaw-thrust maneuver.

D) suction the mouth for 15 seconds and then reattempt to open the airway.

Ans: A

Complexity: Moderate

Ahead: Airway Management

Subject: Airway Management and Ventilation

Page: 796

Feedback: Airway Management, page 796

42. A foreign body airway obstruction should be suspected in a child who presents with:

A) diffuse wheezing and nasal flaring.

B) a productive cough and flushed skin.

C) acute respiratory distress without fever.

D) progressive respiratory distress and hoarseness.

Ans: C

Complexity: Moderate

Ahead: Airway Obstructions

Subject: Airway Management and Ventilation

Page: 802

Feedback: Airway Obstructions, page 802

43. An airway obstruction secondary to a severe allergic reaction:

A) requires specific and aggressive treatment.

B) often responds well to humidified oxygen.

C) is usually the result of pulmonary aspiration.

D) is treated effectively with abdominal thrusts.

Ans: A

Complexity: Moderate

Ahead: Airway Obstructions

Subject: Airway Management and Ventilation

Page: 802

Feedback: Airway Obstructions, page 802

44. Which of the following conditions would MOST likely cause laryngeal spasm and edema?

A) Croup

B) Inhalation injury

C) Viral pharyngitis

D) Mild asthma attack

Ans: B

Complexity: Easy

Ahead: Airway Obstructions

Subject: Airway Management and Ventilation

Pages: 802–803

Feedback: Airway Obstructions, pages 802–803

45. Complications of aspiration include all of the following, EXCEPT:

A) airway obstruction.

B) intrapulmonary infection.

C) bronchiolar tissue damage.

D) excess surfactant production.

Ans: D

Complexity: Moderate

Ahead: Airway Obstructions

Subject: Airway Management and Ventilation

Page: 803

Feedback: Airway Obstructions, page 803

46. Poor lung compliance during your initial attempt to ventilate an unconscious, apneic adult should be treated by:

A) sweeping the patient's mouth with your fingers.

B) reopening the airway and reattempting to ventilate.

C) performing 30 chest compressions and reassessing.

D) administering 15 subdiaphragmatic thrusts at once.

Ans: B

Complexity: Moderate

Ahead: Airway Obstructions

Subject: Airway Management and Ventilation

Page: 804

Feedback: Airway Obstructions, page 804

47. If chest compressions and repositioning of the airway are unsuccessful in removing a severe airway obstruction in an unconscious patient, you should:

A) perform a blind finger sweep of the mouth.

B) alternate chest compressions and abdominal thrusts.

C) perform laryngoscopy and use Magill forceps.

D) gain airway access via the cricothyroid membrane.

Ans: C

Complexity: Moderate

Ahead: Airway Obstructions

Subject: Airway Management and Ventilation

Page: 805

Feedback: Airway Obstructions, page 805

48. A whistle-tip suction catheter is MOST often used to:

A) suction large debris from the oropharynx.

B) rapidly remove large volumes of vomitus.

C) remove secretions from an ET tube.

D) suction an adult's mouth for 15 to 30 seconds.

Ans: C

Complexity: Moderate

Ahead: Suctioning

Subject: Airway Management and Ventilation

Page: 797

Feedback: Suctioning, page 797

49. Placing a suction catheter past the base of the tongue:

A) may cause the patient to gag or vomit.

B) will result in aspiration of gastric contents.

C) is effective in thoroughly clearing the airway.

D) commonly causes bradycardia in adult patients.

Ans: A

Complexity: Moderate

Ahead: Suctioning

Subject: Airway Management and Ventilation

Page: 799

Feedback: Suctioning, page 799

50. An artificial airway adjunct:

A) effectively protects the airway from aspiration.

B) is a suitable substitute for manual head positioning.

C) should be inserted in any patient who is semiconscious.

D) does not obviate the need for proper head positioning.

Ans: D

Complexity: Moderate

Ahead: Airway Adjuncts

Subject: Airway Management and Ventilation

Page: 799

Feedback: Airway Adjuncts, page 799

51. If an unresponsive patient does not have a gag reflex, an oropharyngeal airway:

A) should only be inserted if the patient is not breathing.

B) should be inserted whether the patient is breathing or not.

C) will effectively prevent aspiration if the patient vomits.

D) must be inserted by depressing the tongue with a tongue blade.

Ans: B

Complexity: Moderate

Ahead: Airway Adjuncts

Subject: Airway Management and Ventilation

Page: 799

Feedback: Airway Adjuncts, page 799

52. The MOST significant complication associated with the use of an oropharyngeal airway is:

A) soft-tissue trauma with oral bleeding.

B) mild bradycardia in pediatric patients.

C) significant bruising of the hard palate.

D) a tachycardic response in adult patients.

Ans: A

Complexity: Moderate

Ahead: Airway Adjuncts

Subject: Airway Management and Ventilation

Page: 800

Feedback: Airway Adjuncts, page 800

53. Inserting a nasopharyngeal airway in a patient with CSF drainage from the nose following head trauma may:

A) result in ventricular dysrhythmias secondary to intracranial pressure.

B) cause acute herniation of the brainstem through the foramen magnum.

C) cause the device to enter the brain through a hole caused by a fracture.

D) result in acute hypertension and decreased cerebral perfusion pressure.

Ans: C

Complexity: Moderate

Ahead: Airway Adjuncts

Subject: Airway Management and Ventilation

Page: 801

Feedback: Airway Adjuncts, page 801

54. It would be appropriate to insert a nasopharyngeal airway in patients who:

A) are unresponsive with multiple facial bone fractures.

B) have an altered mental status with an intact gag reflex.

C) are semiconscious with active vomiting and cyanosis.

D) have CSF leakage from the nose and are semiconscious.

Ans: B

Complexity: Moderate

Ahead: Airway Adjuncts

Subject: Airway Management and Ventilation

Page: 801

Feedback: Airway Adjuncts, page 801

55. Supplemental oxygen is indicated for any patient with:

A) ischemic stroke.

B) cardiac chest pain.

C) a syncopal episode.

D) respiratory distress.

Ans: D

Complexity: Easy

Ahead: Supplemental Oxygen Therapy

Subject: Airway Management and Ventilation

Page: 806

Feedback: Airway Adjuncts, page 806

56. A full (2,000 psi) D cylinder will last approximately \_\_\_\_\_\_ minutes if you are administering oxygen at 12 L/min.

A) 22

B) 24

C) 26

D) 28

Ans: B

Complexity: Moderate

Ahead: Supplemental Oxygen Therapy

Subject: Airway Management and Ventilation

Page: 807

Feedback: Supplemental Oxygen Therapy, page 807

57. A Bourdon-gauge oxygen flowmeter:

A) reduces the high pressure in the oxygen cylinder to a safe pressure.

B) allows you to administer oxygen to a patient under high pressures.

C) is used for transferring oxygen from a larger tank to a smaller tank.

D) must be placed in an upright position because it is affected by gravity.

Ans: A

Complexity: Moderate

Ahead: Supplemental Oxygen Therapy

Subject: Airway Management and Ventilation

Page: 807

Feedback: Supplemental Oxygen Therapy, page 807

58. Which of the following statements regarding oxygen is correct?

A) Oxygen is a highly flammable gas.

B) Grease prevents oxygen from exploding.

C) Oxygen supports the process of combustion.

D) Oxygen must be stored in a warm environment.

Ans: C

Complexity: Moderate

Ahead: Supplemental Oxygen Therapy

Subject: Airway Management and Ventilation

Page: 806

Feedback: Supplemental Oxygen Therapy, page 806

59. When administering oxygen via a nonrebreathing mask, you must ensure that the:

A) reservoir is half-filled first.

B) one-way valves are disabled.

C) patient has adequate tidal volume.

D) flow rate is set to at least 6 L/min.

Ans: C

Complexity: Moderate

Ahead: Supplemental Oxygen-Delivery Devices

Subject: Airway Management and Ventilation

Page: 808

Feedback: Supplemental Oxygen-Delivery Devices, page 808

60. The nasal cannula is of MOST benefit to patients:

A) who require high oxygen concentrations.

B) with mild hypoxemia and claustrophobia.

C) with an acute exacerbation of emphysema.

D) who are hypoxic and are mouth breathers.

Ans: B

Complexity: Moderate

Ahead: Supplemental Oxygen-Delivery Devices

Subject: Airway Management and Ventilation

Page: 809

Feedback: Supplemental Oxygen-Delivery Devices, page 809

61. The Venturi mask is MOST useful in the prehospital setting when:

A) a patient requires less than 15% oxygen.

B) high-flow oxygen is required for severe hypoxia.

C) patients cannot tolerate a nonrebreathing mask.

D) a COPD patient requires a long-range transport.

Ans: D

Complexity: Moderate

Ahead: Supplemental Oxygen-Delivery Devices

Subject: Airway Management and Ventilation

Page: 810

Feedback: Supplemental Oxygen-Delivery Devices, page 810

62. Oxygen that is entirely devoid of moisture:

A) is less combustible than humidified oxygen.

B) will dry the patient's mucous membranes quickly.

C) is optimum for patients requiring long-term oxygen.

D) should be given in conjunction with bronchodilators.

Ans: B

Complexity: Moderate

Ahead: Supplemental Oxygen-Delivery Devices

Subject: Airway Management and Ventilation

Page: 810

Feedback: Supplemental Oxygen-Delivery Devices, page 810

63. In contrast to negative pressure ventilation, positive pressure ventilation:

A) may impair blood return to the heart.

B) moves air into the esophagus and trachea.

C) causes decreased intrathoracic pressure.

D) is the act of normal, unassisted breathing.

Ans: A

Complexity: Moderate

Ahead: Ventilatory Support

Subject: Airway Management and Ventilation

Page: 811

Feedback: Ventilatory Support, page 811

64. When ventilating an apneic adult with a pulse with a bag-mask device, you should:

A) deliver 10 breaths/min and make the chest wall rise visibly.

B) make the chest rise visibly and deliver one breath every 8 seconds.

C) deliver each breath over 1 second at a rate of 10 to 12 breaths/min.

D) squeeze the bag once every 3 seconds until the chest expands widely.

Ans: C

Complexity: Moderate

Ahead: Ventilatory Support

Subject: Airway Management and Ventilation

Page: 814

Feedback: Ventilatory Support, page 814

65. Hyperventilating an apneic patient:

A) is appropriate if the patient is an adult.

B) may decrease venous return to the heart.

C) is beneficial if the pulse rate is too slow.

D) reduces the incidence of gastric distention.

Ans: B

Complexity: Moderate

Ahead: Ventilatory Support

Subject: Airway Management and Ventilation

Pages: 811–812

Feedback: Ventilatory Support, pages 811–812

66. Complications associated with the one-person bag-mask ventilation technique are MOST often related to:

A) hyperinflation of the lungs.

B) unrecognized rescuer fatigue.

C) improper manual head positioning.

D) inadequate tidal volume delivery.

Ans: D

Complexity: Moderate

Ahead: Ventilatory Support

Subject: Airway Management and Ventilation

Page: 814

Feedback: Ventilatory Support, page 814

67. When two paramedics are ventilating an apneic patient with a bag-mask device, the paramedic not squeezing the bag should:

A) apply posterior cricoid pressure.

B) manually position the patient's head.

C) continually auscultate breath sounds.

D) maintain an adequate mask-to-face seal.

Ans: D

Complexity: Moderate

Ahead: Ventilatory Support

Subject: Airway Management and Ventilation

Page: 815

Feedback: Ventilatory Support, page 815

68. An 8-year-old child in cardiac arrest has been intubated. When ventilating the child, the paramedic should:

A) observe for full chest expansion.

B) deliver 10 breaths per minute.

C) allow partial exhalation between breaths.

D) deliver one breath every 15 seconds.

Ans: B

Complexity: Moderate

Ahead: Ventilatory Support

Subject: Airway Management and Ventilation

Page: 814

Feedback: Ventilatory Support, page 814

69. Which of the following is an indicator of inadequate artificial ventilation when ventilating an apneic, tachycardic adult with a bag-mask device?

A) The patient's heart rate slows down.

B) One breath is given every 10 to 12 seconds.

C) About 20 breaths per minute are being delivered.

D) Each ventilation is delivered over 1 second.

Ans: C

Complexity: Moderate

Ahead: Ventilatory Support

Subject: Airway Management and Ventilation

Page: 816

Feedback: Ventilatory Support, page 816

70. Which of the following statements regarding the automatic transport ventilator (ATV) is correct?

A) The ATV should not be used to ventilate a patient who is intubated and in cardiac arrest.

B) Inadvertent variations in the rate and duration of ventilations often occur when the ATV is used.

C) The paramedic can control an apneic patient's minute volume with accuracy when using an ATV.

D) Most ATVs are large and cumbersome and are therefore impractical to use in the prehospital setting.

Ans: C

Complexity: Moderate

Ahead: Ventilatory Support

Subject: Airway Management and Ventilation

Pages: 816–817

Feedback: Ventilatory Support, pages 816–817

71. The pressure relief valve on an automatic transport ventilator may lead to unrecognized hypoventilation in patients with all of the following conditions, EXCEPT:

A) airway obstruction.

B) prolonged apnea.

C) poor lung compliance.

D) increased airway resistance.

Ans: B

Complexity: Moderate

Ahead: Ventilatory Support

Subject: Airway Management and Ventilation

Page: 817

Feedback: Ventilatory Support, page 817

72. A length-based resuscitation tape measure can be used to determine the most appropriate size of bag-mask device for pediatric patients who weigh up to:

A) 34 kg.

B) 38 kg.

C) 42 kg.

D) 46 kg.

Ans: A

Complexity: Moderate

Ahead: Ventilatory Support

Subject: Airway Management and Ventilation

Page: 817

Feedback: Ventilatory Support, page 817

73. Physiologic effects of CPAP include:

A) increased intrathoracic pressure.

B) forcing of fluid into the alveoli.

C) increased alveolar surface tension.

D) opening of collapsed alveoli.

Ans: D

Complexity: Moderate

Ahead: Continuous Positive Airway Pressure

Subject: Airway Management and Ventilation

Page: 817

Feedback: Continuous Positive Airway Pressure, page 817

74. Indications for CPAP include:

A) cardiopulmonary arrest.

B) acute pulmonary edema.

C) severe opiate toxicity.

D) acute bacterial pneumonia.

Ans: B

Complexity: Moderate

Ahead: Continuous Positive Airway Pressure

Subject: Airway Management and Ventilation

Page: 817

Feedback: Continuous Positive Airway Pressure, page 817

75. CPAP is NOT appropriate for patients with:

A) acute or chronic bronchospasm.

B) slow, shallow respiratory effort.

C) an oxygen saturation less than 90%.

D) evidence of congestive heart failure.

Ans: B

Complexity: Moderate

Ahead: Continuous Positive Airway Pressure

Subject: Airway Management and Ventilation

Page: 818

Feedback: Continuous Positive Airway Pressure, page 818

76. Which of the following patients may benefit from CPAP?

A) Alert patient with respiratory distress following submersion in water

B) Comatose patient with shallow breathing after overdosing on heroin

C) Trauma patient with labored breathing and extensive chest wall bruising

D) Patient with pulmonary edema who is unable to follow verbal commands

Ans: A

Complexity: Moderate

Ahead: Continuous Positive Airway Pressure

Subject: Airway Management and Ventilation

Page: 818

Feedback: Continuous Positive Airway Pressure, page 818

77. When administering CPAP therapy to a patient, it is important to remember that:

A) acute symptomatic bradycardia has been directly linked to CPAP therapy.

B) SpO2 of 100% must be achieved within the first 5 minutes of CPAP application.

C) the increased intrathoracic pressure caused by CPAP can result in hypotension.

D) the head straps must be secured immediately in order to achieve an adequate seal.

Ans: C

Complexity: Moderate

Ahead: Continuous Positive Airway Pressure

Subject: Airway Management and Ventilation

Pages: 818–820

Feedback: Continuous Positive Airway Pressure, pages 818–820

78. Signs of clinical improvement during CPAP therapy include:

A) a decrease in systolic BP.

B) an increase in the heart rate.

C) increased ETCO2.

D) increased ease of speaking.

Ans: D

Complexity: Moderate

Ahead: Continuous Positive Airway Pressure

Subject: Airway Management and Ventilation

Page: 819

Feedback: Continuous Positive Airway Pressure, page 819

79. A gastric tube is MOST useful for:

A) performing prehospital gastric lavage in patients with a toxic ingestion.

B) blocking off the esophagus so that an ET tube can be more easily placed.

C) decompressing the stomach and decreasing pressure on the diaphragm.

D) removing blood from the esophagus in patients with esophageal varices.

Ans: C

Complexity: Moderate

Ahead: Gastric Distention

Subject: Airway Management and Ventilation

Page: 820

Feedback: Gastric Distention, page 820

80. Which of the following is NOT proper procedure when inserting a nasogastric tube in a responsive patient?

A) Administering a topical alpha agonist to constrict the nasal vasculature

B) Keeping the patient's head in an extended position while inserting the tube

C) Injecting 25 mL of air into the tube while auscultating over the epigastrium

D) Encouraging the patient to swallow or drink to facilitate passage of the tube

Ans: B

Complexity: Moderate

Ahead: Gastric Distention

Subject: Airway Management and Ventilation

Pages: 820–822

Feedback: Gastric Distention, pages 820–822

81. In contrast to the nasogastric tube, the orogastric tube:

A) is safer to use in patients with severe facial trauma.

B) should only be used in patients who are conscious.

C) can be used in patients who require gastric lavage.

D) is not necessary in patients who have been intubated.

Ans: A

Complexity: Easy

Ahead: Gastric Distention

Subject: Airway Management and Ventilation

Page: 821

Feedback: Gastric Distention, page 821

82. When determining the correct-sized nasogastric tube for a patient, you should measure the tube:

A) from the nose to the ear and to the xiphoid process.

B) from the nose to the chin and to the epigastric region.

C) from the mouth to the chin and to the xiphoid process.

D) from the nose, around the ear, and to the xiphoid process.

Ans: A

Complexity: Moderate

Ahead: Gastric Distention

Subject: Airway Management and Ventilation

Page: 821

Feedback: Gastric Distention, page 821

83. Endotracheal (ET) intubation is MOST accurately defined as:

A) inserting an ET tube through the vocal cords via the patient's mouth.

B) passing an ET tube through an opening in the cricothyroid membrane.

C) inserting an ET tube through the glottic opening via the patient's nose.

D) passing an ET tube through the glottic opening and sealing off the trachea.

Ans: D

Complexity: Easy

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 831

Feedback: Advanced Airway Management, page 831

84. All of the following are complications associated with orotracheal intubation, EXCEPT:

A) laryngeal swelling.

B) damage to the vocal cords.

C) necrosis of the nasal mucosa.

D) barotrauma from forceful ventilation.

Ans: C

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 831

Feedback: Advanced Airway Management, page 831

85. The major advantage of ET intubation is that it:

A) facilitates tracheal suctioning.

B) protects the airway from aspiration.

C) is an easy skill to learn and perform.

D) provides a route for certain medications.

Ans: B

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 831

Feedback: Advanced Airway Management, page 831

86. A disadvantage of ET intubation is that it:

A) is associated with a high incidence of vocal cord damage and bleeding into the oropharynx.

B) bypasses the upper airway's physiologic functions of warming, filtering, and humidifying.

C) does not eliminate the incidence of gastric distention and can result in pulmonary aspiration.

D) is only a temporary method of securing the patient's airway until a more definitive device can be inserted.

Ans: B

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 831

Feedback: Advanced Airway Management, page 831

87. The opening on the distal side of an ET tube allows ventilation to occur:

A) whether the tube is in the trachea or in the esophagus.

B) even if the tip of the tube is occluded by blood or mucus.

C) if the tube is inserted into the right mainstem bronchus.

D) even if the ET tube does not enter the patient's trachea fully.

Ans: B

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Pages: 831–832

Feedback: Advanced Airway Management, pages 831–832

88. An ET tube that is too large for a patient:

A) is much more likely to enter the esophagus.

B) will lead to an increased resistance to airflow.

C) will make ventilating the patient more difficult.

D) can be difficult to insert and may cause trauma.

Ans: D

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 832

Feedback: Advanced Airway Management, page 832

89. Normally, an adult male will require an ET tube that ranges from:

A) 6.5 to 7.0 mm.

B) 7.0 to 7.5 mm.

C) 7.5 to 8.5 mm.

D) 8.5 to 9.0 mm.

Ans: C

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 832

Feedback: Advanced Airway Management, page 832

90. Regardless of the internal diameter, all ET tubes have:

A) a 15/22-mm proximal adaptor.

B) an inflatable cuff at the distal tip.

C) a pilot balloon on the proximal end.

D) black millimeter markings on the side.

Ans: A

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Pages: 831–832

Feedback: Advanced Airway Management, pages 831–832

91. The procedure in which the vocal cords are visualized for placement of an ET tube is called direct:

A) bronchoscopy.

B) tracheostomy.

C) pharyngoscopy.

D) laryngoscopy.

Ans: D

Complexity: Easy

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 832

Feedback: Advanced Airway Management, page 832

92. In contrast to a curved laryngoscope blade, a straight laryngoscope blade is designed to:

A) move the patient's tongue to the left.

B) extend beneath the epiglottis and lift it up.

C) fit into the vallecular space at the base of the tongue.

D) indirectly lift the epiglottis to expose the vocal cords.

Ans: B

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 833

Feedback: Advanced Airway Management, page 833

93. When inserting a stylet into an ET tube, you must ensure that:

A) the stylet rests at least ½ inch back from the end of the tube.

B) you use a petroleum-based gel to facilitate easy removal.

C) the stylet is rigid and does not allow the ET tube to bend.

D) the tube is bent in the form of a U to facilitate placement.

Ans: A

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 832

Feedback: Advanced Airway Management, page 832

94. Before performing orotracheal intubation, it is MOST important for the paramedic to:

A) monitor the patient's cardiac rhythm.

B) preoxygenate with a bag-mask device.

C) wear gloves and facial protection.

D) apply a pulse oximeter to the patient.

Ans: C

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 833

Feedback: Advanced Airway Management, page 833

95. Most of the complications caused by intubation-induced hypoxia:

A) are easily reversible.

B) are subtle and occur gradually.

C) can be predicted with pulse oximetry.

D) are dramatic and occur immediately.

Ans: B

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 835

Feedback: Advanced Airway Management, page 835

96. Orotracheal intubation should be performed with the patient's head:

A) slightly flexed.

B) hyperextended.

C) in a neutral position.

D) in the sniffing position.

Ans: D

Complexity: Easy

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 835

Feedback: Advanced Airway Management, page 835

97. Intubation of the trauma patient is MOST effectively performed:

A) with a curved blade.

B) by two paramedics.

C) with a cervical collar in place.

D) with the patient's head elevated.

Ans: B

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 835

Feedback: Advanced Airway Management, page 835

98. After properly positioning the patient's head for intubation, you should open his or her mouth and insert the laryngoscope blade:

A) into the right side of the mouth and sweep the tongue to the left.

B) in the midline of the mouth and gently lift upward on the tongue.

C) into the left side of the mouth and move the blade to the midline.

D) in the midline of the mouth and gently sweep the tongue to the left.

Ans: A

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 836

Feedback: Advanced Airway Management, page 836

99. Which of the following structures is the MOST critical to visualize during orotracheal intubation?

A) Uvula

B) Tongue

C) Epiglottis

D) Tonsils

Ans: C

Complexity: Easy

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 836

Feedback: Advanced Airway Management, page 836

100. You will know that you have achieved the proper laryngoscopic view of the vocal cords when you see:

A) two white fibrous bands that lie vertically within the glottic opening.

B) the tip of the straight blade touching the posterior wall of the pharynx.

C) the thyroid cartilage bulge anteriorly as you lift up on the laryngoscope.

D) the epiglottis lift when the tip of the curved blade is resting underneath it.

Ans: A

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 837

Feedback: Advanced Airway Management, page 837

101. The BURP maneuver usually involves applying backward, upward, and rightward pressure to the:

A) upper third of the cricoid cartilage.

B) lower third of the cricoid cartilage.

C) upper third of the thyroid cartilage.

D) lower third of the thyroid cartilage.

Ans: D

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 838

Feedback: Advanced Airway Management, page 838

102. The BEST way to be certain that the ET tube has passed through the vocal cords is to:

A) feel the ridges of the tracheal wall with the ET tube.

B) visualize the tube passing between the vocal cords.

C) note the appropriate color change of the capnographer.

D) ensure the presence of bilaterally equal breath sounds.

Ans: B

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 838

Feedback: Advanced Airway Management, page 838

103. You should insert the ET tube between the vocal cords until the:

A) centimeter marking reads 15 cm at the patient's teeth.

B) distal end of the cuff is 1 to 2 cm past the vocal cords.

C) proximal end of the cuff is 1 to 2 cm past the vocal cords.

D) tube meets resistance as it makes contact with the carina.

Ans: C

Complexity: Easy

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 838

Feedback: Advanced Airway Management, page 838

104. After inserting the ET tube between the vocal cords, you should remove the stylet from the tube and then:

A) attach the bag-mask device and ventilate.

B) secure the tube with a commercial device.

C) attach an ETCO2 detector to the tube.

D) inflate the distal cuff with 5 to 10 mL of air.

Ans: D

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 838

Feedback: Advanced Airway Management, page 838

105. If the ET tube has been positioned properly in the trachea:

A) breath sounds should be somewhat louder on the right side and the epigastrium should be silent.

B) you should not see vapor mist in the ET tube during exhalation when ventilating with a bag-mask device.

C) breath sounds should be loud at the apices of the lungs but somewhat diminished at the bases.

D) the bag-mask device should be easy to compress and you should see corresponding chest expansion.

Ans: D

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 839

Feedback: Advanced Airway Management, page 839

106. Decreased ventilation compliance following intubation is LEAST suggestive of:

A) gastric distention.

B) left bronchus intubation.

C) esophageal intubation.

D) tension pneumothorax.

Ans: B

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 839

Feedback: Advanced Airway Management, page 839

107. Capnography is a reliable method for confirming proper ET tube placement because:

A) carbon dioxide is not present in the esophagus.

B) it is a reliable indicator of the patient's PaO2 level.

C) capnographers measure the amount of exhaled oxygen.

D) capnographers measure the amount of carbon dioxide in inhaled air.

Ans: A

Complexity: Moderate

Ahead: Quantifying Ventilation and Oxygenation

Subject: Airway Management and Ventilation

Pages: 790–792

Feedback: Quantifying Ventilation and Oxygenation, pages 790–792

108. If the ET tube is placed in the trachea properly, the colorimetric paper inside the CO2 detector should:

A) not change colors.

B) turn yellow during inhalation.

C) turn yellow during exhalation.

D) remain purple during ventilations.

Ans: C

Complexity: Moderate

Ahead: Quantifying Ventilation and Oxygenation

Subject: Airway Management and Ventilation

Page: 790

Feedback: Quantifying Ventilation and Oxygenation, page 790

109. The use of capnography in patients with prolonged cardiac arrest may be limited because:

A) of an excess buildup of nitrogen in the blood.

B) the paramedic often ventilates the patient too slowly.

C) of acidosis and minimal carbon dioxide elimination.

D) metabolic alkalosis damages the colorimetric paper.

Ans: C

Complexity: Moderate

Ahead: Quantifying Ventilation and Oxygenation

Subject: Airway Management and Ventilation

Page: 792

Feedback: Quantifying Ventilation and Oxygenation, page 792

110. Typically, ETCO2 is approximately:

A) 2 to 5 mm Hg higher than the arterial PaCO2.

B) 2 to 5 mm Hg lower than the arterial PaCO2.

C) 5 to 10 mm Hg higher than the arterial PaCO2.

D) 5 to 10 mm Hg lower than the arterial PaCO2.

Ans: B

Complexity: Moderate

Ahead: Quantifying Ventilation and Oxygenation

Subject: Airway Management and Ventilation

Page: 791

Feedback: Quantifying Ventilation and Oxygenation, page 791

111. What point(s) on the capnographic waveform represent(s) a mixture of alveolar gas and dead space gas?

A) A-B

B) B

C) B-C

D) D

Ans: B

Complexity: Moderate

Ahead: Quantifying Ventilation and Oxygenation

Subject: Airway Management and Ventilation

Page: 792

Feedback: Quantifying Ventilation and Oxygenation, page 792

112. What phase of the capnographic waveform is called the expiratory upslope?

A) A-B

B) B-C

C) C-D

D) D-E

Ans: B

Complexity: Moderate

Ahead: Quantifying Ventilation and Oxygenation

Subject: Airway Management and Ventilation

Page: 792

Feedback: Quantifying Ventilation and Oxygenation, page 792

113. On a capnographic waveform, point \_\_\_ is the maximal ETCO2 and is the best reflection of the alveolar CO2 level.

A) B

B) C

C) D

D) E

Ans: C

Complexity: Moderate

Ahead: Quantifying Ventilation and Oxygenation

Subject: Airway Management and Ventilation

Page: 792

Feedback: Quantifying Ventilation and Oxygenation, page 792

114. Assessment of a patient in respiratory distress reveals capnographic waveforms that resemble a shark fin. What should you suspect?

A) Pneumonia

B) Heart failure

C) Bronchospasm

D) Hyperventilation

Ans: C

Complexity: Moderate

Ahead: Quantifying Ventilation and Oxygenation

Subject: Airway Management and Ventilation

Pages: 792–793

Feedback: Quantifying Ventilation and Oxygenation, pages 792–793

115. If return of spontaneous circulation (ROSC) occurs, which of the following ETCO2 findings would you expect to encounter?

A) An abrupt and sustained increase in ETCO2

B) Complete loss of a capnographic waveform

C) A progressive decrease in the ETCO2 reading

D) Capnographic waveforms that get smaller

Ans: A

Complexity: Moderate

Ahead: Quantifying Ventilation and Oxygenation

Subject: Airway Management and Ventilation

Pages: 791, 794

Feedback: Quantifying Ventilation and Oxygenation, page 791, 794

116. Capnography can serve as an indicator of:

A) proper ventilatory depth.

B) cerebral perfusion pressure.

C) coronary perfusion pressure.

D) chest compression effectiveness.

Ans: D

Complexity: Easy

Ahead: Quantifying Ventilation and Oxygenation

Subject: Airway Management and Ventilation

Pages: 791–794

Feedback: Quantifying Ventilation and Oxygenation, page 791–794

117. Which of the following would MOST likely cause a prolonged alveolar plateau?

A) Shock

B) Tachypnea

C) Heroin overdose

D) Diabetic ketoacidosis

Ans: C

Complexity: Moderate

Ahead: Quantifying Ventilation and Oxygenation

Subject: Airway Management and Ventilation

Page: 792

Feedback: Quantifying Ventilation and Oxygenation, page 792

118. Assessment of a spontaneously perfusing patient’s ETCO2 reveals small capnographic waveforms and a reading of 22 mm Hg. Which of the following does this indicate?

A) Bradypnea

B) Hyperventilation

C) Respiratory acidosis

D) Metabolic alkalosis

Ans: B

Complexity: Moderate

Ahead: Quantifying Ventilation and Oxygenation

Subject: Airway Management and Ventilation

Page: 792

Feedback: Quantifying Ventilation and Oxygenation, page 792

119. Which of the following capnography findings indicates that a patient is rebreathing previously exhaled carbon dioxide?

A) Increasing ETCO2 value and waveforms that never return to the baseline

B) Decreasing ETCO2 value and waveforms that fall well below the baseline

C) Intermittent loss of a capnographic waveform, especially during inhalation

D) Small capnographic waveforms with a complete loss of alveolar plateau

Ans: A

Complexity: Moderate

Ahead: Quantifying Ventilation and Oxygenation

Subject: Airway Management and Ventilation

Pages: 792–793

Feedback: Quantifying Ventilation and Oxygenation, pages 792–793

120. While ventilating an intubated patient, you note a complete loss of capnographic waveform and numeric value, yet the patient’s chest rises with ventilations and you are able to hear bilateral breath sounds. What should you do?

A) Decrease the rate of ventilation.

B) Replace the ETCO2 inline adaptor.

C) Increase the rate of ventilation.

D) Extubate and ventilate with a bag-mask.

Ans: B

Complexity: Moderate

Ahead: Quantifying Ventilation and Oxygenation

Subject: Airway Management and Ventilation

Page: 792

Feedback: Quantifying Ventilation and Oxygenation, page 792

121. A Cormack-Lehane Class 3 airway is characterized by:

A) a full view of the glottic opening.

B) visualization of the epiglottis only.

C) a partial view of the arytenoid cartilage.

D) an inability to see the epiglottis or glottis.

Ans: B

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 831

Feedback: Advanced Airway Management, page 831

122. Before securing the ET tube in place with a commercial device, you should:

A) remove the bag-mask device from the ET tube.

B) hyperventilate the patient for 30 seconds to 1 minute.

C) move the ET tube to the center of the patient's mouth.

D) note the centimeter marking on the ET tube at the patient's teeth.

Ans: D

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 841

Feedback: Advanced Airway Management, page 841

123. Compared to orotracheal intubation, nasotracheal intubation is less likely to result in hypoxia because:

A) it must be performed on spontaneously breathing patients.

B) the procedure should be performed in less than 10 seconds.

C) it does not involve direct visualization of the vocal cords.

D) patients requiring nasotracheal intubation are usually stable.

Ans: A

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Pages: 846–847

Feedback: Advanced Airway Management, pages 846–847

124. Which of the following is NOT a contraindication for nasotracheal intubation?

A) Apnea

B) Spinal injury

C) Frequent use of cocaine

D) Patients taking an anticoagulant

Ans: B

Complexity: Easy

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 847

Feedback: Advanced Airway Management, page 847

125. The paramedic should be especially diligent when confirming tube placement following blind nasotracheal intubation because:

A) the ET tube cannot be secured effectively when it is in the nose.

B) most patients who are intubated nasally are extremely combative.

C) he or she did not visualize the tube passing between the vocal cords.

D) most nasotracheal intubation attempts result in esophageal placement.

Ans: C

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 847

Feedback: Advanced Airway Management, page 847

126. The MOST common complication associated with nasotracheal intubation is:

A) bleeding.

B) aspiration.

C) hypoxemia.

D) regurgitation.

Ans: A

Complexity: Easy

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 847

Feedback: Advanced Airway Management, page 847

127. The use of phenylephrine hydrochloride (Neo-Synephrine) during nasotracheal intubation will:

A) reduce the likelihood and severity of nasal bleeding.

B) sedate the patient and facilitate his or her compliance.

C) dilate the nasal vasculature and facilitate tube insertion.

D) anesthetize the nasopharynx and reduce patient discomfort.

Ans: A

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 847

Feedback: Advanced Airway Management, page 847

128. When performing nasotracheal intubation, you should use an ET tube that is:

A) equipped with a stylet in order to make the tube formfitting.

B) uncuffed so as to avoid unnecessary damage to the nasal mucosa.

C) slightly larger than the nostril into which the tube will be inserted.

D) 1 to 1.5 mm smaller than you would use for orotracheal intubation.

Ans: D

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 847

Feedback: Advanced Airway Management, page 847

129. When nasally intubating a patient, the ET tube is advanced:

A) as the patient exhales.

B) when the patient inhales.

C) when the patient swallows.

D) in between the patient's breaths.

Ans: B

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 848

Feedback: Advanced Airway Management, page 848

130. If you insert the ET tube into the patient's left nostril, you should:

A) insert the tube straight back without rotating it.

B) insert the tube with the beveled tip facing upward.

C) ensure that the bevel is facing away from the septum.

D) rotate the tube 180° as its tip enters the nasopharynx.

Ans: D

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 848

Feedback: Advanced Airway Management, page 848

131. If you see a soft-tissue bulge on either side of the airway when performing nasotracheal intubation:

A) inadvertent esophageal intubation has likely occurred.

B) you should completely remove the tube and reoxygenate.

C) you have probably inserted the tube into the piriform fossa.

D) the tube is positioned correctly just above the glottic opening.

Ans: C

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 848

Feedback: Advanced Airway Management, page 848

132. Which of the following is NOT a step that is performed during nasotracheal intubation?

A) Advancing the ET tube as the patient inhales

B) Preoxygenating with a bag-mask device as necessary

C) Ensuring that the patient's head is hyperflexed

D) Placing the patient's head in a neutral position

Ans: C

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Pages: 848–850

Feedback: Advanced Airway Management, pages 848–850

133. Digital intubation is absolutely contraindicated if the patient:

A) has copious airway secretions.

B) is unconscious but breathing.

C) is trapped in a confined space.

D) is extremely obese or has a short neck.

Ans: B

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 851

Feedback: Advanced Airway Management, page 851

134. Digital intubation can be performed on trauma patients because:

A) the head does not have to be placed in a sniffing position.

B) most trauma patients have distortion of the airway anatomy.

C) orotracheal intubation is unsafe to perform on trauma patients.

D) the technique is easier to perform than other forms of intubation.

Ans: A

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 851

Feedback: Advanced Airway Management, page 851

135. Digital intubation should be performed only on a patient who is\_\_\_\_\_\_\_.

A) unresponsive and apneic

B) stuporous and bradypneic

C) comatose and breathing inadequately

D) semiconscious and tachypneic

Ans: A

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 851

Feedback: Advanced Airway Management, page 851

136. Rigorous tube confirmation protocol must be followed after performing digital intubation because:

A) inadvertent extubation of the patient is very common.

B) capnography is unreliable in digitally intubated patients.

C) ET tubes that are placed digitally do not have a pilot balloon.

D) the procedure of digital intubation is truly a blind technique.

Ans: D

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 852

Feedback: Advanced Airway Management, page 852

137. When determining whether transillumination-guided intubation should be attempted, you should:

A) consider the amount of soft tissue that is overlying the trachea.

B) avoid the procedure if the patient is thin or is greater than 6 feet tall.

C) ensure the airway is clear of secretions by suctioning for 30 seconds.

D) recall that patients with short necks are often easy to transilluminate.

Ans: A

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 852

Feedback: Advanced Airway Management, page 852

138. Transillumination-guided intubation can be difficult or impossible to perform:

A) in any patient with dentures.

B) if the patient has oral secretions.

C) in a brightly lit environment.

D) in patients over 70 years of age.

Ans: C

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 852

Feedback: Advanced Airway Management, page 852

139. Which of the following represents the MOST correct technique for performing transillumination-guided intubation?

A) Place the patient's head in a hyperflexed position and insert the tube-stylet combination into the left side of the mouth.

B) Grasp the lower jaw with your thumb and forefinger, displace it forward, and insert the tube-stylet combination in the midline of the patient's mouth.

C) Hyperextend the patient's head, pull the jaw down, and insert the tube-stylet combination into the right side of the patient's mouth.

D) Place the patient's head in a neutral position, displace the tongue with a tongue blade, and insert the tube-stylet combination in the midline of the mouth.

Ans: B

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Pages: 852–853

Feedback: Advanced Airway Management, pages 852–853

140. Which of the following indicates that the lighted stylet has entered the trachea?

A) Dim, diffuse light at the anterior part of the neck

B) Bulging of the soft tissue above the thyroid cartilage

C) Tightly circumscribed light below the thyroid cartilage

D) Absent illumination at the midline of the patient's neck

Ans: C

Complexity: Easy

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 853

Feedback: Advanced Airway Management, page 853

141. Once you have confirmed that the lighted stylet-ET tube combination has entered the trachea, you should:

A) secure the tube manually, remove the stylet, and attach a bag-mask device.

B) slightly withdraw the stylet and tube to ensure placement above the carina.

C) remove the lighted stylet and inflate the distal cuff with 5 to 10 mL of air.

D) hold the stylet in place and advance the tube about 2 to 4 cm into the trachea.

Ans: D

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 853

Feedback: Advanced Airway Management, page 853

142. During tracheobronchial suctioning, it is MOST important to:

A) apply suction for no longer than 5 seconds in the adult.

B) avoid rotating the catheter as you are suctioning the trachea.

C) monitor the patient's cardiac rhythm and oxygen saturation.

D) inject 10 mL of saline down the ET tube to loosen secretions.

Ans: C

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Pages: 858–859

Feedback: Advanced Airway Management, pages 858–859

143. Appropriate insertion of a soft-tip (whistle-tip) suction catheter down the ET tube involves:

A) gently inserting the catheter until resistance is felt.

B) inserting the catheter until secretions are observed.

C) inserting the catheter no farther than 6 to 8 in.

D) applying suction while gently inserting the catheter.

Ans: A

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Pages: 859–860

Feedback: Advanced Airway Management, page 859–860

144. After tracheobronchial suctioning is complete, you should:

A) visualize the vocal cords to ensure the tube is still in the correct position.

B) hyperventilate the patient at 24 breaths/min for approximately 3 minutes.

C) instill 3 to 5 mL of saline down the tube to loosen any residual secretions.

D) reattach the bag-mask device, continue ventilations, and reassess the patient.

Ans: D

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Pages: 859–860

Feedback: Advanced Airway Management, page 859–860

145. Which of the following statements regarding field extubation is correct?

A) It is generally better to sedate the patient rather than extubate.

B) The patient should be extubated if spontaneous breathing occurs.

C) The risk of laryngospasm following extubation is relatively low.

D) Extubation should be performed with the patient in a supine position.

Ans: A

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 859

Feedback: Advanced Airway Management, page 859

146. The MOST obvious risk associated with extubation is:

A) moderate airway swelling as the ET tube is removed.

B) overestimating the patient's ability to protect his or her own airway.

C) patient retching and gagging as you remove the ET tube.

D) bradycardia from stimulation of the parasympathetic nervous system.

Ans: B

Complexity: Easy

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 859

Feedback: Advanced Airway Management, page 859

147. After confirming that an intubated patient remains responsive enough to maintain his or her own airway, you should first:

A) fully deflate the distal cuff on the ET tube.

B) have the patient sit up or lean slightly forward.

C) suction the oropharynx to remove any secretions.

D) insert an orogastric tube to ensure the stomach is empty.

Ans: B

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Pages: 859, 861

Feedback: Advanced Airway Management, pages 859, 861

148. Which of the following statements regarding multilumen airways is correct?

A) Multilumen airways can be used safely in pediatric patients if ET intubation is unsuccessful.

B) To ensure proper placement, multilumen airways should be inserted under direct laryngoscopy.

C) Multilumen airways are equipped with an oropharyngeal cuff, which eliminates the need for a mask seal.

D) Compared with esophageal airways, multilumen airway devices have not been shown to provide better ventilation.

Ans: C

Complexity: Moderate

Ahead: Alternative Advanced Airway Devices

Subject: Airway Management and Ventilation

Page: 875

Feedback: Alternative Advanced Airway Devices, page 875

149. The major advantage of the multilumen airway is that:

A) it can be used in children and adults as an alternative airway device.

B) no mask seal is required to ventilate with either of the multilumen airways.

C) intubating the trachea with the multilumen airway in place is extremely easy.

D) effective ventilation is possible if the tube enters the esophagus or the trachea.

Ans: D

Complexity: Moderate

Ahead: Alternative Advanced Airway Devices

Subject: Airway Management and Ventilation

Pages: 875–876

Feedback: Alternative Advanced Airway Devices, pages 875–876

150. The MOST significant complication associated with the use of multilumen airways is:

A) laryngospasm or vomiting during insertion of the tube.

B) unrecognized displacement of the tube into the esophagus.

C) vocal cord damage if the tube inadvertently enters the trachea.

D) pharyngeal or esophageal trauma secondary to poor technique.

Ans: B

Complexity: Moderate

Ahead: Alternative Advanced Airway Devices

Subject: Airway Management and Ventilation

Page: 876

Feedback: Alternative Advanced Airway Devices, page 876

151. In general, a multilumen airway should not be used in patients who are:

A) greater than 6 feet tall.

B) younger than 16 years of age.

C) older than 65 years of age.

D) less than 4 feet 5 inches tall.

Ans: B

Complexity: Easy

Ahead: Alternative Advanced Airway Devices

Subject: Airway Management and Ventilation

Page: 875

Feedback: Alternative Advanced Airway Devices, page 875

152. Multilumen airways are contraindicated in patients with:

A) esophageal cancer.

B) cervical spine trauma.

C) traumatic cardiac arrest.

D) a history of gastric ulcers.

Ans: A

Complexity: Moderate

Ahead: Alternative Advanced Airway Devices

Subject: Airway Management and Ventilation

Pages: 875–876

Feedback: Alternative Advanced Airway Devices, pages 875–876

153. After inserting the Combitube to the proper depth, you should next:

A) inflate the distal cuff with 5 mL of air.

B) ventilate through the pharyngeal tube.

C) inflate the pharyngeal cuff with 100 mL of air.

D) apply a cervical collar to minimize head movement.

Ans: C

Complexity: Moderate

Ahead: Alternative Advanced Airway Devices

Subject: Airway Management and Ventilation

Pages: 876–877

Feedback: Alternative Advanced Airway Devices, pages 876–877

154. The LMA is:

A) a suitable airway device for use in morbidly obese patients.

B) an alternative to bag-mask ventilation when intubation is not possible.

C) associated with a higher risk of damage to the vocal cords than intubation.

D) especially effective for CHF patients who require high pulmonary pressures.

Ans: B

Complexity: Moderate

Ahead: Alternative Advanced Airway Devices

Subject: Airway Management and Ventilation

Page: 869

Feedback: Alternative Advanced Airway Devices, page 869

155. The main disadvantage of the LMA is that it:

A) does not provide protection against aspiration.

B) spontaneously dislodges in the majority of patients.

C) is associated with significant upper airway swelling.

D) is technically more difficult to perform than intubation.

Ans: A

Complexity: Moderate

Ahead: Alternative Advanced Airway Devices

Subject: Airway Management and Ventilation

Pages: 869–870

Feedback: Alternative Advanced Airway Devices, pages 869–870

156. During ventilation with the LMA, the paramedic should:

A) observe the patient for signs of inadequate ventilation.

B) maintain the patient's head in a slightly flexed position.

C) suction the patient's oropharynx at least every 2 minutes.

D) hyperventilate the patient to maximize tidal volume delivery.

Ans: A

Complexity: Moderate

Ahead: Alternative Advanced Airway Devices

Subject: Airway Management and Ventilation

Page: 870

Feedback: Alternative Advanced Airway Devices, page 870

157. When checking the cuff of the LMA prior to insertion, you should:

A) stretch the cuff to check for tears or other damage.

B) inflate the cuff with 100 mL of air and then deflate.

C) gently pull on the cuff at the tube to ensure integrity.

D) inflate the cuff with 50% more air than is required.

Ans: D

Complexity: Moderate

Ahead: Alternative Advanced Airway Devices

Subject: Airway Management and Ventilation

Page: 871

Feedback: Alternative Advanced Airway Devices, page 871

158. A size 3 or 4 LMA:

A) is most suitable for use in morbidly obese patients.

B) is less likely to become dislodged than smaller sizes.

C) will accommodate the passage of a 6.0-mm ET tube.

D) is appropriate to use in children younger than 6 years of age.

Ans: C

Complexity: Moderate

Ahead: Alternative Advanced Airway Devices

Subject: Airway Management and Ventilation

Page: 870

Feedback: Alternative Advanced Airway Devices, page 870

159. Proper insertion of the LMA involves:

A) inserting the LMA into the patient's mouth by following the curvature of the patient's tongue.

B) lifting the patient's jaw upward and blindly inserting the LMA until you meet resistance.

C) flexing the patient's neck, depressing the tongue with a tongue blade, and blindly inserting the LMA.

D) inserting the LMA along the roof of the mouth and using your finger to push the airway against the hard palate.

Ans: D

Complexity: Moderate

Ahead: Alternative Advanced Airway Devices

Subject: Airway Management and Ventilation

Pages: 871–872

Feedback: Alternative Advanced Airway Devices, pages 871–872

160. The King LT airway can be used to:

A) administer certain cardiac medications directly into the trachea.

B) maintain a patent airway in spontaneously breathing patients.

C) establish a patent airway in patients of any age and body size.

D) suction pulmonary secretions from the tracheobronchial tree.

Ans: B

Complexity: Moderate

Ahead: Alternative Advanced Airway Devices

Subject: Airway Management and Ventilation

Page: 866

Feedback: Alternative Advanced Airway Devices, page 866

161. The King LT-D airway features a:

A) straight tube with two inflatable cuffs that hold an equal amount of air.

B) port through which gastric contents can be suctioned from the stomach.

C) curved tube with ventilation ports located between two inflatable cuffs.

D) universal size with two inflation ports and is used for patients of any age.

Ans: C

Complexity: Moderate

Ahead: Alternative Advanced Airway Devices

Subject: Airway Management and Ventilation

Page: 866

Feedback: Alternative Advanced Airway Devices, page 866

162. The King airway should NOT be used in patients:

A) with known esophageal disease.

B) with prolonged cardiac arrest.

C) with a traumatic brain injury.

D) who weigh less than 25 kg.

Ans: A

Complexity: Moderate

Ahead: Alternative Advanced Airway Devices

Subject: Airway Management and Ventilation

Page: 867

Feedback: Alternative Advanced Airway Devices, page 867

163. Proper placement of the King LT airway is performed by all of the following techniques, EXCEPT:

A) auscultation of bilateral breath sounds.

B) the esophageal detector device.

C) quantitative waveform capnography.

D) observation for symmetrical chest rise.

Ans: B

Complexity: Moderate

Ahead: Alternative Advanced Airway Devices

Subject: Airway Management and Ventilation

Page: 867

Feedback: Alternative Advanced Airway Devices, page 867

164. If ventilation is difficult after inserting a King LT airway, you should:

A) deflate both of the cuffs, withdraw the device 2 cm, and reattempt ventilation.

B) remove the King LT and immediately resume ventilation with a bag-mask device.

C) attach a manually triggered ventilator and observe for adequate chest rise.

D) gently withdraw the device, without deflating the cuffs, until ventilation is easier.

Ans: D

Complexity: Moderate

Ahead: Alternative Advanced Airway Devices

Subject: Airway Management and Ventilation

Page: 867

Feedback: Alternative Advanced Airway Devices, page 867

165. When correctly placed, the distal tip of the Cobra perilaryngeal airway (CobraPLA):

A) enters the esophagus and provides complete obturation.

B) is proximal to the esophagus and seals the hypopharynx.

C) is in almost perfect alignment with the esophageal opening.

D) rests against the arytenoid cartilage and enters the glottis.

Ans: B

Complexity: Moderate

Ahead: Alternative Advanced Airway Devices

Subject: Airway Management and Ventilation

Page: 873

Feedback: Alternative Advanced Airway Devices, page 873

166. How does the i-gel differ from the LMA?

A) The i-gel has a noninflatable mask.

B) The i-gel comes in only two sizes.

C) The i-gel mask holds more air than the LMA.

D) The lumen of the i-gel is smaller than the LMA.

Ans: A

Complexity: Moderate

Ahead: Alternative Advanced Airway Devices

Subject: Airway Management and Ventilation

Page: 871

Feedback: Alternative Advanced Airway Devices, page 871

167. If used properly, and under the correct circumstances, sedation during airway management:

A) chemically paralyzes the patient, thus facilitating placement of an advanced airway device.

B) effectively increases patient compliance, thus making definitive airway management safer to perform.

C) significantly reduces the pain and discomfort associated with laryngoscopy and ET intubation.

D) minimizes the risks of bradycardia and hypotension that occasionally occur during advanced airway management.

Ans: B

Complexity: Moderate

Ahead: Pharmacologic Adjuncts to Airway Management and Ventilation

Subject: Airway Management and Ventilation

Page: 861

Feedback: Pharmacologic Adjuncts to Airway Management and Ventilation, page 861

168. Undersedation of a patient during airway management would likely result in all of the following, EXCEPT:

A) respiratory depression.

B) pulmonary aspiration.

C) poor patient compliance.

D) tachycardia and hypertension.

Ans: A

Complexity: Moderate

Ahead: Pharmacologic Adjuncts to Airway Management and Ventilation

Subject: Airway Management and Ventilation

Page: 861

Feedback: Pharmacologic Adjuncts to Airway Management and Ventilation, page 861

169. Fentanyl (Sublimaze) is a:

A) narcotic analgesic.

B) benzodiazepine sedative.

C) sedative-hypnotic drug.

D) butrophenone sedative.

Ans: A

Complexity: Easy

Ahead: Pharmacologic Adjuncts to Airway Management and Ventilation

Subject: Airway Management and Ventilation

Page: 862

Feedback: Pharmacologic Adjuncts to Airway Management and Ventilation, page 863

170. Which of the following medications is a dissociative anesthetic that produces anesthesia through hallucinogenic, amnesic, analgesic, and sedative effects?

A) Versed

B) Ketamine

C) Fentanyl

D) Diazepam

Ans: B

Complexity: Moderate

Ahead: Pharmacologic Adjuncts to Airway Management and Ventilation

Subject: Airway Management and Ventilation

Pages: 861–862

Feedback: Pharmacologic Adjuncts to Airway Management and Ventilation, pages 861–862

171. Which of the following dosing regimens for ketamine would MOST likely be used to induce sedation prior to administering a neuromuscular blocker?

A) 2 mg/kg

B) 25 to 50 mg

C) 0.2 to 0.3 mg/kg

D) 0.5 to 1 mg/kg

Ans: A

Complexity: Moderate

Ahead: Pharmacologic Adjuncts to Airway Management and Ventilation

Subject: Airway Management and Ventilation

Page: 862

Feedback: Pharmacologic Adjuncts to Airway Management and Ventilation, page 862

172. Reemergence phenomenon is characterized by:

A) pleasant dreams or vivid nightmares.

B) incomplete recollection of previous events.

C) a transient, but significant, drop in heart rate.

D) a drop in blood pressure as medication wears off.

Ans: A

Complexity: Moderate

Ahead: Pharmacologic Adjuncts to Airway Management and Ventilation

Subject: Airway Management and Ventilation

Page: 862

Feedback: Pharmacologic Adjuncts to Airway Management and Ventilation, page 862

173. Which of the following medications does NOT possess hypnotic properties?

A) Versed

B) Brevital

C) Alfentanil

D) Etomidate

Ans: C

Complexity: Moderate

Ahead: Pharmacologic Adjuncts to Airway Management and Ventilation

Subject: Airway Management and Ventilation

Pages: 861–862

Feedback: Pharmacologic Adjuncts to Airway Management and Ventilation, pages 861–862

174. Diazepam and midazolam provide all of the following therapeutic effects, EXCEPT:

A) sedation.

B) analgesia.

C) anxiolysis.

D) retrograde amnesia.

Ans: B

Complexity: Moderate

Ahead: Pharmacologic Adjuncts to Airway Management and Ventilation

Subject: Airway Management and Ventilation

Pages: 861–862

Feedback: Pharmacologic Adjuncts to Airway Management and Ventilation, pages 861–862

175. Which of the following medications is safest to use in patients with borderline hypotension or hypovolemia?

A) Brevital

B) Pentothal

C) Sublimaze

D) Etomidate

Ans: D

Complexity: Moderate

Ahead: Pharmacologic Adjuncts to Airway Management and Ventilation

Subject: Airway Management and Ventilation

Page: 862

Feedback: Pharmacologic Adjuncts to Airway Management and Ventilation, page 862

176. Neuromuscular blocking agents:

A) are most commonly used as the sole agent to facilitate placement of an ET tube.

B) convert a breathing patient with a marginal airway into an apneic patient with no airway.

C) induce total body paralysis within 10 to 15 minutes following administration via IV push.

D) have a negative effect on both cardiac and smooth muscle and commonly cause dysrhythmias.

Ans: B

Complexity: Moderate

Ahead: Pharmacologic Adjuncts to Airway Management and Ventilation

Subject: Airway Management and Ventilation

Page: 862

Feedback: Pharmacologic Adjuncts to Airway Management and Ventilation, page 862

177. When a patient is given a paralytic without sedation:

A) he or she is fully aware and can hear and feel.

B) you should only give one-tenth of the standard dose.

C) placement of an ET tube is less traumatic.

D) paralysis is not achieved and intubation is not possible.

Ans: A

Complexity: Moderate

Ahead: Pharmacologic Adjuncts to Airway Management and Ventilation

Subject: Airway Management and Ventilation

Page: 863

Feedback: Pharmacologic Adjuncts to Airway Management and Ventilation, page 863

178. Paralytic medications exert their effect by:

A) blocking the release of epinephrine and norepinephrine from the sympathetic nervous system.

B) competitively binding to the motor neurons in the brain, thus blocking their ability to send messages.

C) functioning at the neuromuscular junction and relaxing the muscle by impeding the action of acetylcholine.

D) blocking the function of the autonomic nervous system and impeding the action of acetylcholinesterase.

Ans: C

Complexity: Moderate

Ahead: Pharmacologic Adjuncts to Airway Management and Ventilation

Subject: Airway Management and Ventilation

Page: 863

Feedback: Pharmacologic Adjuncts to Airway Management and Ventilation, page 863

179. Nondepolarizing neuromuscular blocking agents include all of the following, EXCEPT:

A) vecuronium bromide.

B) rocuronium bromide.

C) pancuronium bromide.

D) succinylcholine chloride.

Ans: D

Complexity: Moderate

Ahead: Pharmacologic Adjuncts to Airway Management and Ventilation

Subject: Airway Management and Ventilation

Page: 863

Feedback: Pharmacologic Adjuncts to Airway Management and Ventilation, page 863

180. Which of the following is NOT characteristic of a depolarizing neuromuscular blocking agent?

A) Bradycardia

B) Tachycardia

C) Muscle fasciculations

D) Short duration of action

Ans: B

Complexity: Moderate

Ahead: Pharmacologic Agents to Airway Management and Ventilation

Subject: Airway Management and Ventilation

Pages: 863–864

Feedback: Pharmacologic Adjuncts to Airway Management and Ventilation, pages 863–864

181. To prevent muscular fasciculations associated with the use of succinylcholine, you should administer:

A) 0.5 mg of atropine sulfate via rapid IV push.

B) 10% of the usual dose of a nondepolarizing paralytic.

C) an infusion of potassium chloride set at 5 mEq per hour.

D) 1 to 1.5 mg/kg of lidocaine over 10 to 15 minutes.

Ans: B

Complexity: Moderate

Ahead: Pharmacologic Adjuncts to Airway Management and Ventilation

Subject: Airway Management and Ventilation

Pages: 863–864

Feedback: Pharmacologic Adjuncts to Airway Management and Ventilation, pages 863–864

182. Drugs such as vecuronium bromide (Norcuron) and pancuronium bromide (Pavulon) are MOST appropriate to administer when:

A) extended periods of paralysis are needed.

B) longer-acting paralytics are contraindicated.

C) you have a transport time of less than 15 minutes.

D) intubation of the patient is anticipated to be difficult.

Ans: A

Complexity: Moderate

Ahead: Pharmacologic Adjuncts to Airway Management and Ventilation

Subject: Airway Management and Ventilation

Page: 864

Feedback: Pharmacologic Adjuncts to Airway Management and Ventilation, page 864

183. Before intubating a patient who has been chemically sedated and paralyzed, it is MOST important for the paramedic to:

A) administer 0.5 mg of atropine sulfate.

B) hyperventilate the patient at 24 breaths/min.

C) adequately preoxygenate with 100% oxygen.

D) suction the oropharynx to clear any secretions.

Ans: C

Complexity: Moderate

Ahead: Pharmacologic Adjuncts to Airway Management and Ventilation

Subject: Airway Management and Ventilation

Page: 864

Feedback: Pharmacologic Adjuncts to Airway Management and Ventilation, page 864

184. If the patient's oxygen saturation drops at any point during rapid sequence intubation, you should:

A) stop and hyperventilate the patient at a rate of 24 breaths/min.

B) abort the intubation attempt and ventilate with a bag-mask device.

C) apply posterior cricoid pressure and continue the intubation attempt.

D) continue the intubation attempt and monitor the cardiac rhythm closely.

Ans: B

Complexity: Moderate

Ahead: Pharmacologic Adjuncts to Airway Management and Ventilation

Subject: Airway Management and Ventilation

Page: 865

Feedback: Pharmacologic Adjuncts to Airway Management and Ventilation, page 865

185. The external jugular veins run \_\_\_\_\_\_\_\_\_\_\_\_ and are located \_\_\_\_\_\_\_\_\_\_\_\_ to the cricothyroid membrane.

A) vertically, lateral

B) vertically, medial

C) horizontally, lateral

D) horizontally, medial

Ans: A

Complexity: Moderate

Ahead: Surgical and Nonsurgical Cricothyrotomy

Subject: Airway Management and Ventilation

Page: 877

Feedback: Surgical and Nonsurgical Cricothyrotomy, page 877

186. When performing an open cricothyrotomy, you will MOST likely avoid damage to the jugular veins if:

A) the patient's head is hyperextended.

B) you incise the cricothyroid membrane at a transverse angle.

C) the patient's head is in a neutral position.

D) the cricothyroid membrane is incised vertically.

Ans: D

Complexity: Moderate

Ahead: Surgical and Nonsurgical Cricothyrotomy

Subject: Airway Management and Ventilation

Page: 879

Feedback: Surgical and Nonsurgical Cricothyrotomy, page 879

187. The cricothyroid membrane is the ideal site for making a surgical opening into the trachea because:

A) no important structures lie between the skin covering the cricothyroid membrane and the airway.

B) the tough cartilage that comprises the cricothyroid membrane can easily be incised with a scalpel.

C) there are no major blood vessels or other structures that lie adjacent to the cricothyroid membrane.

D) the cricoid cartilage helps prevent accidental perforation through the back of the airway and into the esophagus.

Ans: A

Complexity: Moderate

Ahead: Surgical and Nonsurgical Cricothyrotomy

Subject: Airway Management and Ventilation

Page: 878

Feedback: Surgical and Nonsurgical Cricothyrotomy, page 878

188. Open cricothyrotomy is indicated when:

A) ET intubation is unsuccessful after three attempts.

B) all other methods of advanced airway management have failed.

C) you are unable to secure a patent airway with less invasive means.

D) the patient has a head injury that precludes nasotracheal intubation.

Ans: C

Complexity: Moderate

Ahead: Surgical and Nonsurgical Cricothyrotomy

Subject: Airway Management and Ventilation

Page: 878

Feedback: Surgical and Nonsurgical Cricothyrotomy, page 878

189. Open cricothyrotomy is generally contraindicated in all of the following situations, EXCEPT:

A) tracheal tumors or subglottic stenosis.

B) any patient who is younger than 16 years of age.

C) crushing laryngeal injuries or tracheal transection.

D) inability to identify the correct anatomic landmarks.

Ans: B

Complexity: Moderate

Ahead: Surgical and Nonsurgical Cricothyrotomy

Subject: Airway Management and Ventilation

Page: 879

Feedback: Surgical and Nonsurgical Cricothyrotomy, page 879

190. In contrast to a needle cricothyrotomy, an open cricothyrotomy:

A) involves the use of a high-pressure jet ventilator.

B) enables the paramedic to provide greater tidal volume.

C) is the preferred technique in patients with short, fat necks.

D) is easier to perform in children younger than 8 years of age.

Ans: B

Complexity: Moderate

Ahead: Surgical and Nonsurgical Cricothyrotomy

Subject: Airway Management and Ventilation

Page: 879

Feedback: Surgical and Nonsurgical Cricothyrotomy, page 879

191. Incising the cricothyroid membrane vertically will:

A) minimize the risk of damaging the thyroid gland.

B) facilitate insertion of an 8.0- to 9.0-mm ET tube.

C) completely eliminate the risk of any external bleeding.

D) increase the risk of damaging the external jugular veins.

Ans: A

Complexity: Moderate

Ahead: Surgical and Nonsurgical Cricothyrotomy

Subject: Airway Management and Ventilation

Page: 879

Feedback: Surgical and Nonsurgical Cricothyrotomy, page 879

192. You should be MOST suspicious of tube misplacement following an open cricothyrotomy if:

A) bleeding from the subcutaneous tissues is observed.

B) there is minimal rise of the chest during ventilations.

C) progressive redness is noted around the insertion site.

D) a crackling sensation is noted when palpating the neck.

Ans: D

Complexity: Moderate

Ahead: Surgical and Nonsurgical Cricothyrotomy

Subject: Airway Management and Ventilation

Page: 879

Feedback: Surgical and Nonsurgical Cricothyrotomy, page 879

193. When performing an open cricothyrotomy, you should FIRST:

A) maintain aseptic technique as you cleanse the area with iodine.

B) slide your index finger between the thyroid and cricoid cartilages.

C) palpate for the V notch of the thyroid cartilage and stabilize the larynx.

D) hyperextend the patient's neck and then palpate the cricoid cartilage.

Ans: C

Complexity: Moderate

Ahead: Surgical and Nonsurgical Cricothyrotomy

Subject: Airway Management and Ventilation

Page: 880

Feedback: Surgical and Nonsurgical Cricothyrotomy, page 880

194. Which of the following statements regarding translaryngeal catheter ventilation is correct?

A) It is more difficult to perform than an open cricothyrotomy.

B) It provides a more definitive airway than an open cricothyrotomy.

C) Ventilation is achieved by the use of a high-pressure jet ventilator.

D) The technique uses the tracheal wall as an entry point to the airway.

Ans: C

Complexity: Moderate

Ahead: Surgical and Nonsurgical Cricothyrotomy

Subject: Airway Management and Ventilation

Page: 880

Feedback: Surgical and Nonsurgical Cricothyrotomy, page 880

195. Needle cricothyrotomy is contraindicated in patients with:

A) uncontrolled oropharyngeal bleeding.

B) obstruction above the catheter insertion site.

C) massive maxillofacial trauma and trismus.

D) a suspected injury to the cervical spine.

Ans: B

Complexity: Moderate

Ahead: Surgical and Nonsurgical Cricothyrotomy

Subject: Airway Management and Ventilation

Page: 882

Feedback: Surgical and Nonsurgical Cricothyrotomy, page 882

196. Because the high-pressure ventilator used with needle cricothyrotomy would cause an increase in intrathoracic pressure, \_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_ may result.

A) hypercarbia, hypoxia

B) barotrauma, pneumothorax

C) hypoventilation, hypocarbia

D) esophageal rupture, hemorrhage

Ans: B

Complexity: Moderate

Ahead: Surgical and Nonsurgical Cricothyrotomy

Subject: Airway Management and Ventilation

Page: 883

Feedback: Surgical and Nonsurgical Cricothyrotomy, page 883

197. Compared with an open cricothyrotomy, needle cricothyrotomy:

A) allows for subsequent attempts to intubate the patient.

B) requires the paramedic to manipulate the patient's cervical spine.

C) is technically more difficult and takes longer to perform.

D) is associated with a higher risk of damage to adjacent structures.

Ans: A

Complexity: Moderate

Ahead: Surgical and Nonsurgical Cricothyrotomy

Subject: Airway Management and Ventilation

Page: 883

Feedback: Surgical and Nonsurgical Cricothyrotomy, page 883

198. The MOST significant disadvantage associated with needle cricothyrotomy is:

A) air leakage around the insertion site.

B) the inability to exhale via the glottis.

C) local infection due to poor technique.

D) the potential for pulmonary aspiration.

Ans: D

Complexity: Moderate

Ahead: Surgical and Nonsurgical Cricothyrotomy

Subject: Airway Management and Ventilation

Page: 883

Feedback: Surgical and Nonsurgical Cricothyrotomy, page 883

199. After inserting the needle into through the cricothyroid membrane, you should next:

A) change your angle to 90° and advance the catheter over the needle.

B) aspirate with the syringe and then insert the needle about 2 cm farther.

C) insert the needle about 1 cm farther and then aspirate with the syringe.

D) advance the catheter over the needle until the hub is flush with the skin.

Ans: C

Complexity: Moderate

Ahead: Surgical and Nonsurgical Cricothyrotomy

Subject: Airway Management and Ventilation

Page: 883

Feedback: Surgical and Nonsurgical Cricothyrotomy, page 883

200. You should turn the jet ventilator release valve off when:

A) the audible alarm sounds.

B) wide chest expansion is noted.

C) the patient's chest visibly rises.

D) you can auscultate breath sounds.

Ans: C

Complexity: Easy

Ahead: Surgical and Nonsurgical Cricothyrotomy

Subject: Airway Management and Ventilation

Page: 883

Feedback: Surgical and Nonsurgical Cricothyrotomy, page 883

201. Proper insertion of the needle into the cricothyroid membrane involves a \_\_\_ angle toward the \_\_\_\_\_\_\_\_.

A) 45°, feet

B) 90°, posterior trachea

C) 45°, posterior trachea

D) 90°, feet

Ans: A

Complexity: Moderate

Ahead: Surgical and Nonsurgical Cricothyrotomy

Subject: Airway Management and Ventilation

Page: 883

Feedback: Surgical and Nonsurgical Cricothyrotomy, page 883

202. A surgical opening into the trachea is called a:

A) stoma.

B) laryngectomy.

C) laryngectomee.

D) tracheostomy.

Ans: D

Complexity: Easy

Ahead: Special Patient Considerations

Subject: Airway Management and Ventilation

Page: 823

Feedback: Special Patient Considerations, page 823

203. Patients with a partial laryngectomy:

A) have had their entire larynx removed and breathe through an opening in the neck called a stoma.

B) are called partial neck breathers because they breathe through both a stoma and the nose and mouth.

C) are easy to differentiate from patients who have had a total laryngectomy, especially when they are apneic.

D) cannot be ventilated with the mouth-to-mask technique because there is no connection between the pharynx and lower airway.

Ans: B

Complexity: Moderate

Ahead: Special Patient Considerations

Subject: Airway Management and Ventilation

Pages: 823–824

Feedback: Special Patient Considerations, pages 823–824

204. Patients with laryngectomies MOST commonly develop mucous plugs in their stoma because:

A) they are at higher risk for pneumonia.

B) they do not possess an efficient cough.

C) the diameter of the stoma is small.

D) their swallowing mechanism is suppressed.

Ans: B

Complexity: Moderate

Ahead: Special Patient Considerations

Subject: Airway Management and Ventilation

Page: 824

Feedback: Special Patient Considerations, page 824

205. When suctioning a patient's stoma, you should:

A) insert the catheter until resistance is felt.

B) ask the patient to inhale as you are suctioning.

C) insert the catheter no more than 15 cm.

D) provide suction for no longer than 20 seconds.

Ans: A

Complexity: Moderate

Ahead: Special Patient Considerations

Subject: Airway Management and Ventilation

Page: 825

Feedback: Special Patient Considerations, page 825

206. If a patient has a stoma and no tracheostomy tube in place:

A) you should not seal the nose and mouth when ventilating.

B) suctioning of the stoma must be performed before ventilating.

C) ventilations can be performed by placing a mask over the stoma.

D) you must perform a head tilt-chin lift maneuver before ventilating.

Ans: C

Complexity: Moderate

Ahead: Special Patient Considerations

Subject: Airway Management and Ventilation

Page: 824

Feedback: Special Patient Considerations, page 824

207. Whether you are providing ventilations to a patient with a stoma using a resuscitation mask or bag-mask device, you must FIRST:

A) perform a head tilt-chin lift maneuver.

B) place the patient's head in a neutral position.

C) adequately cleanse the stoma site with iodine.

D) suction the stoma for no longer than 10 seconds.

Ans: B

Complexity: Moderate

Ahead: Special Patient Considerations

Subject: Airway Management and Ventilation

Pages: 826–827

Feedback: Special Patient Considerations, pages 826–827

208. In order for a tracheostomy tube to be compatible with a mechanical ventilator or bag-mask device:

A) it should have a stylet that can be removed easily.

B) it should have an internal diameter of at least 6.0 mm.

C) the patient's head must be in a hyperextended position.

D) it must be equipped with a 15/22-mm proximal adaptor.

Ans: D

Complexity: Moderate

Ahead: Special Patient Considerations

Subject: Airway Management and Ventilation

Page: 825

Feedback: Special Patient Considerations, page 825

209. When replacing a dislodged tracheostomy tube, it is MOST important that you:

A) insert the tube 2 cm beyond the cuff.

B) take appropriate standard precautions.

C) lubricate the tube before insertion.

D) use a tracheostomy tube of the same size.

Ans: B

Complexity: Moderate

Ahead: Special Patient Considerations

Subject: Airway Management and Ventilation

Page: 828

Feedback: Special Patient Considerations, page 828

210. Removal of a dental appliance after intubating a patient is:

A) dangerous and may cause dislodgement of the tube.

B) generally preferred but should be performed carefully.

C) mandatory in the event the patient will require surgery.

D) acceptable only if the device is an upper or lower bridge.

Ans: A

Complexity: Moderate

Ahead: Special Patient Considerations

Subject: Airway Management and Ventilation

Page: 828

Feedback: Special Patient Considerations, page 828

211. Which of the following interventions is NOT appropriate when treating an unresponsive patient whose airway is obstructed by a dental appliance?

A) Abdominal thrusts

B) Chest compressions

C) Direct laryngoscopy

D) Use of Magill forceps

Ans: A

Complexity: Moderate

Ahead: Special Patient Considerations

Subject: Airway Management and Ventilation

Pages: 827–828

Feedback: Special Patient Considerations, pages 827–828

212. When ventilating a patient with facial injuries, it is MOST important to:

A) ventilate with a higher-than-normal volume.

B) suction the oropharynx every 2 to 3 minutes.

C) be alert for changes in ventilation compliance.

D) ensure that a cervical collar has been applied.

Ans: C

Complexity: Moderate

Ahead: Special Patient Considerations

Subject: Airway Management and Ventilation

Page: 829

Feedback: Special Patient Considerations, page 829

213. If the distance between the hyoid bone and the thyroid notch is at least \_\_\_ fingerbreadths wide, the difficulty of intubation should be low.

A) one

B) two

C) three

D) four

Ans: B

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Pages: 829–830

Feedback: Advanced Airway Management, pages 829–830

214. A mouth-opening width of less than \_\_\_ inches indicates a potentially difficult airway.

A) 2

B) 3

C) 4

D) 5

Ans: A

Complexity: Easy

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 829

Feedback: Advanced Airway Management, page 829

215. When looking inside a patient's mouth, you cannot see the posterior pharynx and only the base of the uvula is exposed. This is indicative of a Mallampati Class:

A) I.

B) II.

C) III.

D) IV.

Ans: C

Complexity: Easy

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 830

Feedback: Advanced Airway Management, page 830

216. With regard to intubation difficulty, neck mobility problems are MOST commonly associated with:

A) female patients.

B) tall, thin patients.

C) small children.

D) elderly patients.

Ans: D

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 830

Feedback: Advanced Airway Management, page 830

217. After opening an unresponsive patient's airway, you determine that his respirations are rapid, irregular, and shallow. You should:

A) intubate him at once.

B) apply a nonrebreathing mask.

C) suction his mouth for 15 seconds.

D) begin positive pressure ventilations.

Ans: D

Complexity: Moderate

Ahead: Patient Assessment: Airway Evaluation

Subject: Airway Management and Ventilation

Pages: 783–784

Feedback: Patient Assessment: Airway Evaluation, pages 783–784

218. Which of the following patients is LEAST likely in need of positive pressure ventilation?

A) Confused 46-year-old woman with labored respirations, adventitious breath sounds, and pallor

B) Conscious 41-year-old woman with two-word dyspnea, perioral cyanosis, and tachycardia

C) Semiconscious 39-year-old man with shallow chest wall movement, cyanosis, and bradypnea

D) Conscious 36-year-old man with difficulty breathing, symmetrical chest rise and fall, and flushed skin

Ans: D

Complexity: Moderate

Ahead: Patient Assessment: Airway Evaluation

Subject: Airway Management and Ventilation

Pages: 783–784

Feedback: Patient Assessment: Airway Evaluation, pages 783–784

219. Which of the following findings is MOST clinically significant in a 30-year-old woman with difficulty breathing and a history of asthma?

A) Oral temperature of 97.9°F

B) Expiratory wheezing on exam

C) Prior ICU admission for her asthma

D) 3 mm Hg drop in systolic BP during inhalation

Ans: C

Complexity: Moderate

Ahead: Patient Assessment: Airway Evaluation

Subject: Airway Management and Ventilation

Page: 784

Feedback: Patient Assessment: Airway Evaluation, page 784

220. After obtaining a peak expiratory flow reading of 200 mL, you administered one bronchodilator treatment to a 21-year-old woman with an acute episode of expiratory wheezing. The next peak flow reading is 400 mL. You should:

A) recognize that the patient's condition has improved.

B) give another bronchodilator treatment and reassess.

C) try another treatment modality to treat her wheezing.

D) assist ventilations and be prepared to intubate her.

Ans: A

Complexity: Moderate

Ahead: Quantifying Ventilation and Oxygenation

Subject: Airway Management and Ventilation

Page: 789

Feedback: Quantifying Ventilation and Oxygenation, page 789

221. You respond to a residence for a possible overdose. The patient, a young man, is unresponsive with slow, snoring respirations. There are obvious needle track marks on his arms. Your FIRST action should be to:

A) insert an oral airway.

B) suction his oropharynx.

C) manually open his airway.

D) begin ventilation assistance.

Ans: C

Complexity: Moderate

Ahead: Airway Management

Subject: Airway Management and Ventilation

Pages: 794–795

Feedback: Airway Management, pages 794–795

222. A 40-year-old man fell 20 feet from a tree while trimming branches. Your assessment reveals that he is unresponsive. You cannot open his airway effectively with the jaw-thrust maneuver. You should:

A) insert a nasopharyngeal airway and assess his respirations.

B) carefully open his airway with the head tilt-chin lift maneuver.

C) assist his ventilations and prepare to intubate him immediately.

D) suction his oropharynx and reattempt the jaw-thrust maneuver.

Ans: B

Complexity: Moderate

Ahead: Airway Management

Subject: Airway Management and Ventilation

Page: 796

Feedback: Airway Management, page 796

223. A 50-year-old woman presents with acute respiratory distress while eating. Upon your arrival, you note that she is conscious, coughing, and wheezing between coughs. Further assessment reveals that her skin is pink and moist. In addition to transporting her to the hospital, you should:

A) perform abdominal thrusts until she becomes unconscious.

B) encourage her to cough and closely monitor her condition.

C) deliver positive pressure ventilations via bag-mask device.

D) look in her mouth and attempt to visualize a foreign body.

Ans: B

Complexity: Difficult

Ahead: Airway Obstructions

Subject: Airway Management and Ventilation

Pages: 803–804

Feedback: Airway Obstructions, pages 803–804

224. Two attempts to ventilate an unconscious 10-year-old boy have been unsuccessful. You should next:

A) intubate his trachea.

B) deliver abdominal thrusts.

C) look inside the patient's mouth.

D) perform chest compressions.

Ans: D

Complexity: Moderate

Ahead: Airway Obstructions

Subject: Airway Management and Ventilation

Page: 804

Feedback: Airway Obstructions, page 804

225. Several cycles of basic life support maneuvers have failed to relieve a severe airway obstruction in an unresponsive 44-year-old woman. You should:

A) intubate the patient and attempt to push the foreign body into one of the mainstem bronchi.

B) continue basic life support maneuvers and transport the patient to the hospital immediately.

C) perform direct laryngoscopy and attempt to remove the obstruction with Magill forceps.

D) place the patient's head in a neutral position and perform an emergency cricothyrotomy.

Ans: C

Complexity: Moderate

Ahead: Airway Obstructions

Subject: Airway Management and Ventilation

Page: 805

Feedback: Airway Obstructions, page 805

226. After inserting an oropharyngeal airway in an unresponsive woman, the patient begins to gag. You should:

A) remove the airway and have suction ready.

B) suction her oropharynx for up to 15 seconds.

C) spray an anesthetic medication into her mouth.

D) turn the patient on her side in case she vomits.

Ans: A

Complexity: Moderate

Ahead: Airway Adjuncts

Subject: Airway Management and Ventilation

Page: 800

Feedback: Airway Adjuncts, page 800

227. A construction worker fell approximately 15 feet and landed on his head. He is semiconscious. His respiratory rate is 14 breaths/min with adequate depth. Further assessment reveals blood draining from his nose. You should:

A) administer oxygen via nonrebreathing mask and continue your assessment.

B) insert a nasopharyngeal airway and assist ventilations with a bag-mask device.

C) suction his nasopharynx for up to 30 seconds and apply oxygen via nasal cannula.

D) insert a nasopharyngeal airway and administer oxygen via nonrebreathing mask.

Ans: A

Complexity: Difficult

Ahead: Airway Adjuncts

Subject: Airway Management and Ventilation

Page: 801

Feedback: Airway Adjuncts, page 801

228. A 19-year-old woman ingested a large quantity of Darvon. She is responsive to pain only and has slow, shallow respirations. The MOST appropriate airway management for this patient involves:

A) inserting an oral airway and assisting ventilations with a bag-mask device.

B) inserting a nasal airway and assisting ventilations with a bag-mask device.

C) inserting an oral airway and administering oxygen via nonrebreathing mask.

D) suctioning her airway, inserting an oral airway, and administering 100% oxygen.

Ans: B

Complexity: Moderate

Ahead: Ventilatory Support

Subject: Airway Management and Ventilation

Page: 811

Feedback: Ventilatory Support, page 811

229. A 66-year-old woman is found to be unresponsive and apneic. Her carotid pulse is weak and rapid. When ventilating this patient, you should deliver:

A) each breath over 2 seconds at a rate of 10 breaths/min.

B) one breath over 1 second every 3 to 5 seconds

C) one breath over 2 seconds every 5 to 6 seconds.

D) each breath over 1 second at a rate of 10 to 12 breaths/min.

Ans: D

Complexity: Moderate

Ahead: Ventilatory Support

Subject: Airway Management and Ventilation

Page: 814

Feedback: Ventilatory Support, page 814

230. You have been providing bag-mask ventilations to an unresponsive, apneic patient with facial trauma for approximately 10 minutes. After intubating the patient, you should:

A) hyperventilate the patient with 100% oxygen.

B) insert a nasogastric tube to decompress the stomach.

C) insert an orogastric tube to relieve gastric distention.

D) ventilate the patient at a rate of 12 to 20 breaths/min.

Ans: C

Complexity: Difficult

Ahead: Gastric Distention

Subject: Airway Management and Ventilation

Page: 820

Feedback: Gastric Distention, page 820

231. Approximately 10 seconds into an intubation attempt, you catch a glimpse of the patient's vocal cords, but quickly lose sight of them. You should:

A) sweep the patient's tongue to the right side of the mouth and revisualize.

B) abort the intubation attempt and ventilate the patient with a bag-mask device.

C) ask your partner to apply backward, upward, rightward pressure to the thyroid.

D) gently pry back on the laryngoscope to improve your view of the upper airway.

Ans: C

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 838

Feedback: Advanced Airway Management, page 838

232. You are intubating a 60-year-old man in cardiac arrest and have visualized the ET tube passing between the vocal cords. After removing the laryngoscope blade from the patient's mouth, manually stabilizing the tube, and removing the stylet, you should:

A) inflate the distal cuff with 5 to 10 mL of air.

B) attach an ETCO2 detector to the tube.

C) secure the ET tube with a commercial device.

D) begin ventilations and auscultate breath sounds.

Ans: A

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 842

Feedback: Advanced Airway Management, page 842

233. After you have intubated an apneic patient with chest trauma, your partner is auscultating breath sounds and tells you that breath sounds are faint on the right side of the chest. You should:

A) slightly withdraw the tube as your partner auscultates breath sounds.

B) suspect that the patient has a pneumothorax on the right side of the chest.

C) immediately remove the ET tube and oxygenate the patient for 30 seconds.

D) increase the force of your ventilations as your partner reauscultates the lungs.

Ans: B

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 839

Feedback: Advanced Airway Management, page 839

234. You are transporting an intubated patient and note that his ETCO2 reading has fallen below 30 mm Hg. You should:

A) hyperventilate the patient to see if the ETCO2 reading increases.

B) slow your ventilation rate to see if the ETCO2 reading decreases.

C) promptly extubate the patient and ventilate with a bag-mask device.

D) take immediate measures to confirm proper placement of the ET tube.

Ans: B

Complexity: Moderate

Ahead: Quantifying Ventilation and Oxygenation

Subject: Airway Management and Ventilation

Pages: 792–794

Feedback: Quantifying Ventilation and Oxygenation, pages

235. You are caring for a 69-year-old man with congestive heart failure. His breathing is profoundly labored, his oxygen saturation reads 79% on oxygen via nonrebreathing mask, and he is showing signs of physical exhaustion. Considering that your protocols do not allow you to perform rapid sequence intubation, you should:

A) insert an oral airway, assist ventilations with a bag-mask device, and transport at once.

B) preoxygenate him with a bag-mask device and then perform blind nasotracheal intubation.

C) give him Valium for sedation, perform orotracheal intubation, and transport to the hospital at once.

D) insert a nasopharyngeal airway and ensure that the nonrebreathing mask is tightly secured to his face.

Ans: B

Complexity: Difficiult

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Pages: 846–847

Feedback: Advanced Airway Management, pages 846–847

236. Several attempts to orotracheally intubate an unresponsive, apneic young patient have failed. You resume bag-mask ventilations and begin transport to a hospital located 25 miles away. En route, you begin having difficulty maintaining an adequate mask-to-face seal with the bag-mask device. Assuming that you have the proper equipment, which of the following techniques to secure a patent airway would be MOST appropriate?

A) Transillumination intubation

B) Blind nasotracheal intubation

C) An open or needle cricothyrotomy

D) Further attempts at orotracheal intubation

Ans: A

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 852

Feedback: Advanced Airway Management, page 852

237. You have intubated a 70-year-old woman with chronic bronchitis and are en route to the hospital. During transport, you note that ventilations are becoming increasingly difficult and her ETCO2 is falling. Your partner tells you that she can still hear bilaterally equal breath sounds, but they are faint. She further tells you that there are no sounds over the epigastrium. What intervention is MOST likely indicated for this patient?

A) Immediate extubation

B) Withdrawing the tube 2 cm

C) Tracheobronchial suctioning

D) Hyperventilation at 24 breaths/min

Ans: C

Complexity: Difficult

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Pages: 858–859

Feedback: Advanced Airway Management, pages 858–859

238. An intubated 33-year-old man is becoming agitated and begins moving his head around. Your estimated time of arrival at the hospital is 15 minutes. You should:

A) administer a sedative medication.

B) suction his airway and carefully extubate.

C) chemically paralyze him with vecuronium.

D) physically restrain his head to the stretcher.

Ans: A

Complexity: Moderate

Ahead: Advanced Airway Management

Subject: Airway Management and Ventilation

Page: 859

Feedback: Advanced Airway Management, page 859

239. You have just inserted a Combitube in a 59-year-old cardiac arrest patient. You attach the bag-mask device to the pharyngeal (blue) tube, begin ventilations, and note the presence of bilaterally equal breath sounds, absent epigastric sounds, and visible chest rise. You should:

A) perform laryngoscopy to visualize placement of the Combitube.

B) continue to ventilate and use additional confirmation techniques.

C) continue ventilating the patient at a rate of 10 to 12 breaths/min.

D) ventilate through the clear tube and auscultate all four lung fields.

Ans: B

Complexity: Moderate

Ahead: Alternative Advanced Airway Devices

Subject: Airway Management and Ventilation

Pages: 875–876

Feedback: Alternative Advanced Airway Devices, pages 875–876

240. You are assessing a young woman who was struck in the head with a baseball bat. The patient is semiconscious and has slow, irregular respirations. Further assessment reveals CSF drainage from her nose and periorbital ecchymosis. She has blood in her mouth, but clenches her teeth and becomes combative when you attempt to suction her oropharynx. The MOST appropriate airway management for this patient involves:

A) sedating her with a benzodiazepine, chemically paralyzing her with a neuromuscular blocker, and intubating her trachea.

B) suctioning along the inside of her cheek with a whistle-tip catheter and then performing blind nasotracheal intubation.

C) opening her mouth with a dental prod, suctioning her oropharynx for 15 seconds, and intubating her trachea via direct laryngoscopy.

D) inserting a nasopharyngeal airway, administering supplemental oxygen via nonrebreathing mask, and continuing suction attempts.

Ans: A

Complexity: Difficult

Ahead: Pharmacological Adjuncts to Airway Management and Ventilation

Subject: Airway Management and Ventilation

Page: 864

Feedback: Pharmacological Adjuncts to Airway Management and Ventilation, page 864

241. A 36-year-old man experienced significant burns to his face, head, and chest following an incident with a barbeque pit. Your assessment of his airway reveals severe swelling. After administering medications to sedate and paralyze the patient, you are unable to intubate him. Furthermore, bag-mask ventilations are producing no chest rise. The quickest way to secure a patent airway in this patient is to:

A) ventilate with a demand valve.

B) insert a supraglottic airway device.

C) perform a needle cricothyrotomy.

D) perform an open cricothyrotomy.

Ans: C

Complexity: Moderate

Ahead: Surgical and Nonsurgical Cricothyrotomy

Subject: Airway Management and Ventilation

Pages: 880–883

Feedback: Surgical and Nonsurgical Cricothyrotomy, pages 880–883

242. You are dispatched to the residence of a 19-year-old man who has a tracheostomy tube and is on a mechanical ventilator. According to the patient's mother, he began experiencing difficulty breathing about 30 minutes ago. Auscultation of his lungs reveals bilaterally diminished breath sounds, and his oxygen saturation is 80%. You disconnect the patient from the mechanical ventilator and begin bag-mask ventilations; however, you meet significant resistance. You should:

A) suspect that he has bilateral pneumothoraces.

B) ventilate with a demand valve and transport at once.

C) remove the bag-mask device and suction his tracheostomy tube.

D) remove his tracheostomy tube and replace it with a new one.

Ans: C

Complexity: Difficult

Ahead: Special Patient Considerations

Subject: Airway Management and Ventilation

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Feedback: Special Patient Considerations, page 824

243. A young woman experienced massive facial trauma after being ejected from her car when it struck a tree. She is semiconscious, has blood draining from her mouth, and has poor respiratory effort. The MOST appropriate initial airway management for this patient involves:

A) vigorously suctioning her oropharynx for no longer than 30 to 45 seconds and then inserting a multilumen airway device.

B) suctioning her airway until it is clear of blood and other secretions, administering a sedative and paralytic, and performing endotracheal intubation.

C) suctioning her oropharynx and performing direct laryngoscopy to assess the amount of upper airway damage or swelling that is present.

D) providing positive pressure ventilatory support with a bag-mask device and making preparations to perform an open cricothyrotomy.

Ans: B

Complexity: Moderate

Ahead: Special Patient Considerations

Subject: Airway Management and Ventilation

Page: 828

Feedback: Special Patient Considerations, page 828

244. The process of delayed sequence intubation involves:

A) administering a sedative in order to facilitate oxygenation of the patient.

B) administering a paralytic only, followed by intubation in 2 to 3 minutes.

C) avoiding the need to intubate a patient through the use of CPAP or BPAP.

D) administering a sedative only, followed by intubation in 3 to 5 minutes.

Ans: A

Complexity: Moderate

Ahead: Pharmacologic Adjuncts to Airway Management and Ventilation

Subject: Airway Management and Ventilation

Page: 865

Feedback: Pharmacological Adjuncts to Airway Management and Ventilation, page 865

245. The concept of apneic oxygenation is based on the fact that:

A) the average healthy adult patient will not desaturate for 15 to 20 minutes.

B) supplemental oxygen after chemical paralysis will not reduce a hypoxic event.

C) oxygen uptake by the alveoli will continue, even when the diaphragm is not moving.

D) in the apneic patient, approximately 200 mL/min of carbon dioxide moves in the alveoli.

Ans: C

Complexity: Moderate

Ahead: Pharmacologic Adjuncts to Airway Management and Ventilation

Subject: Airway Management and Ventilation

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