Provider Course Study Guide
COMPREHENSIVE ADVANCED LIFE SUPPORT

Please, use the answer sheet to record your answers, and then check the online answers. The study guide is to assist you in learning to navigate the manual, and gain knowledge of the material.

1. Completion of the CALS course includes:
   A. Active participation in the course consistent with the CALS team approach
   B. A current ACLS card
   C. Attending the CALS Benchmark Lab
   D. A and C

   Locations in text: 1.) Intro to CALS manual, Preface

2. When transferring a patient using the Patient Transport Algorithm:
   A. Intubate patients with Glasgow Coma Score less than 11
   B. Insert urinary catheter and gastric tube
   C. Include copies of lab results, x-rays, and chart
   D. All of the above.

   Locations in text: 1.) Vol I, Section 1, Acute Care 2

3. A commonly used shock mnemonic is:
   A. MUDPILES
   B. ABCD
   C. SHRIMPCAN
   D. SAMPLE

   Locations in text: 1.) Vol I, Section 1, Acute Care (#21))
   2.) Vol III, Section 12, CV 17-Shock Portal
   3.) Vol III, Technical Information, Mnemonics and Memory Aids

4. Team actions addressed during Step 3 (Initial Survey) of the CALS Universal Approach include all of the following EXCEPT:
   A. Preparing the patient for transfer
   B. Administering oxygen
   C. Taking vital signs
   D. Placing a monitor on the patient

   Locations in text: 1.) Vol I, Section 3, Step 3: Team Action

5. For unresponsive, hypothermic patients, core re-warming includes all of the following EXCEPT:
   A. Warm blankets
   B. Complete AV bypass
   C. Warm IV fluids
   D. Warm bladder and gastric lavage

   Locations in text: 1.) Vol I, Section 4, Pathway 1
   2.) Vol II, Section 7, CIRC SKILLS 7
   3.) Vol III, Section 15, ENV 1

CALS Oct 2014
6. Characteristics of a malarial infection include:
   A. Spread human to human
   B. Hemolysis, hemoglobinuria and multi-organ failure
   C. Splenomegaly is uncommon
   D. Cannot be suspected from clinical signs and symptoms

   Locations in text: 1.) Vol III, Section 26, TM 3

7. The most common causes of PEA are:
   A. Summarized by the 5 Hs and 5 Ts
   B. Defined by the mnemonic MUDPILES
   C. Irreversible
   D. Treated with defibrillation

   Locations in text: 1.) Vol I, Section 4, Pathway 2 # 5
   2.) Vol III, Section 12, CV 6

8. Assessment for cardiac tamponade includes Beck’s Triad. Beck’s Triad consists of:
   A. Chest pain, hypotension, irregular pulse
   B. Hypotension, tachycardia, rales
   C. Distended neck veins, hypotension, muffled heart sounds
   D. Distended neck veins, muffled heart sounds, hypertension

   Locations in text: 1.) Vol I, Section 4, Pathway 2 (#26)
   2.) Vol II, Section 7, Circ Skills 6

9. Drugs used to reduce blood flow to the splanchnic bed in a patient with bleeding esophageal varices include:
   A. Vasopressin and Sandostatin
   B. Epinephrine and Dopamine
   C. Nitroglycerine and Nipride
   D. Vasopressin and Epinephrine

   Locations in text: 1.) Vol I, Section 4, Pathway 3 (#2)
   2.) Vol III, Section 17, GI-1

10. A post-term, 42-week gestation infant is delivered after a prolonged second stage of labor complicated by a tight nuchal cord. Meconium staining is noted during delivery. The infant has no spontaneous respirations. Appropriate actions include:
    A. Place infant under a radiant heater
    B. Tactile stimulation
    C. Intubate and suction the trachea for meconium; repeat until airway is clear or infant goes bradycardic.
    D. A and C

   Locations in text: 1.) Vol I, Section 4, Pathway 4 (#4)
   2.) Vol III, Section 19, Neonatal 1
11. A full-term infant is born after a short labor. The mother received IM narcotic analgesia one hour prior to delivery. The infant is placed in a warmer, dried and positioned properly. Bulb suctioning and tactile stimulation are done but there are no spontaneous respirations (HR 120). The next step is:
   A. Start chest compressions
   B. Continue tactile stimulation
   C. Positive pressure ventilation with no oxygen
   D. All of the above

Locations in text: 1.) Vol I, Section 4, Pathway 4

12. In assessing for premature labor, which of the following need to be monitored:
   A. Frequency of contractions
   B. Strength of contractions
   C. Duration of contractions
   D. All of the above

Locations in text: 1.) Vol I, Section 4, Pathway 5 (#6)
2.) Vol III, Section 21, OB 6

13. Impaction of the anterior shoulder against the symphysis pubis after the fetal head is delivered is known as a:
   A. Delayed delivery
   B. Shoulder dystocia
   C. Time for a C-section
   D. Transverse lie

Locations in text: 1.) Vol I, Section 4, Pathway 5 (#15)
2.) Vol II, Section 21, OB 14

14. When assessing a patient with dyspnea, do all of the following EXCEPT:
   A. Take an explicit history
   B. Obtain a PA and lateral chest x-ray
   C. Assume anxiety is the cause of dyspnea
   D. Obtain ABGs on patients with altered level of consciousness

Locations in text: 1.) Vol I, Section 4, Pathway 6 (#1)

15. Initial management of the unstable asthmatic patients includes all of the following EXCEPT:
   A. Oxygen or Heliox therapy to maintain saturation > 90%
   B. Continuous nebulized beta agonist therapy
   C. Pulmonary function tests
   D. Methylprednisolone 125 mg IV

Locations in text: 1.) Vol I, Section 4, Pathway 6 (# 7)
2.) Vol III, Section 11, AIR 3, 4 & 7

16. For RSI of an unstable, asthmatic child, which of the following drugs supply additional respiratory benefit?
   A. Propofol
   B. Ketamine
   C. Etomidate
   D. Midazolam

Locations in text: 1.) Vol I, Section 1, Airway Acute Care 6
2.) Vol II, Section 5, Air Skills 4
3.) Vol III, Section 11, AIR 1

CALS Oct 2014
17. A 19 year-old unhelmeted motorcyclist is brought to the emergency department with a dilated pupil, opposite extremity weakness, and posturing. You would perform all of the following EXCEPT:
   A. Place in trendelenburg position
   B. Administer Mannitol 1 g/kg IV
   C. Administer Phenytoin 18 mg/kg IV (or Fosphenytoin)
   D. Hyperventilate to a CO$_2$ level of 30 mm Hg if other treatments fail.

Locations in text:
1.) Vol I, Section 4, Pathway 8 (#2)
2.) Vol III, Section 20, NEU 5

18. After ingesting 30 Tylenol tablet three hours ago, prevention of hepatotoxicity can be accomplished by administering:
   A. Sodium Bicarbonate
   B. N-acetylcysteine
   C. Activated charcoal
   D. Syrup of Ipecac

Locations in text:
1.) Vol III, Section 24, Tox 3

19. Volume replacement for the first 24 hours for a burn victim with greater than 20% BSA is calculated using the Parkland Formula. This formula is:
   A. 10 mL/kg/hour of D5W
   B. 3-8 mL/kg/hour of Ringer’s Lactate
   C. 8 Liters of crystalloid solution over 24 hours
   D. 2-4 mL/kg X % BSA for the first 24 hours

Locations in text:
1.) Vol I, Section 4, Pathway 8 (#14)
2.) Vol III, Section 15, ENV 3

20. In treating a child with myoglobinuria from an electrical burn, fluids should be administered to maintain urinary output at:
   A. 1 mL/kg/hour
   B. 10 mL/kg/hour
   C. 1.5 -2.0mL/kg/hour
   D. 30 mL/kg/hour

Locations in text:
1.) Vol III, Section 15, ENV 3

21. Which of the following statements about the use of cricoid pressure in RSI is FALSE?
   A. The first cartilaginous ring below the larynx is the cricoid
   B. It is also known as the Sellick maneuver
   C. It reduces the chance of aspiration secondary to passive regurgitation
   D. The desired effect is occlusion of the trachea between the operator’s fingers and the patient’s esophagus

Locations in text:
1.) Vol II, Section 5, Airway Skills 4

22. Succinylycholine is the paralyzing agent frequently used for rapid sequence intubation. It should NOT be used in which of the following situations?
   A. Patient with asthma
   B. Patient with penetrating eye injury
   C. Patient with decreased serum potassium level
   D. Patient with low blood pressure

Locations in text:
1.) Vol II, Section 5, Airway Skills 4
2.) Vol III, Section 11, AIR 1
23. The appropriate location for the incision for the placement of a chest tube in a trauma patient is:
   A. Superior to the fourth rib
   B. The intersection between the anterior axillary line and a line drawn across the chest from the 5th
      intercostal space
   C. Mid axillary line over the sixth rib
   D. Inferior to the sixth rib in the mid axillary line

24. Symptoms of a tension pneumothorax may include:
   A. Abnormal chest wall excursion with hyper-resonance
   B. Tracheal deviation to the opposite side
   C. Distended neck veins
   D. All of the above

25. Cardiac ultrasound in an emergency setting:
   A. Identifies cardiac tamponade as a white ring around the heart.
   B. Identifies cardiogenic shock by increased cardiac contractility
   C. Hypovolemic, Neurogenic, or septic shock is indicated by vigorous cardiac activity in the face of
      hypotension.
   D. Identifies a massive pulmonary embolus by a dilated left ventricle.

26. The most common site for placement of the intraosseous needle is:
   A. The distal third of the tibia
   B. The medial surface of the fibula
   C. The proximal third of the femur
   D. The flat, medial surface of the proximal tibia

27. Which of the following statements is true about acute epidural hematomas?
   A. Acute epidural hematomas occur due to rupture of the anterior meningeal artery
   B. The pupil usually dilates on the side opposite the hematoma
   C. The hematoma forms between the temporal bone and the dura
   D. The location of the incision to perform a trephine for treatment of an acute epidural hematoma is 2
      finger breaths behind the ear

28. In managing a femur fracture, which of the following need to be considered:
   A. The upper leg can sequester 3 units of blood in the soft tissue
   B. Perform a CMS assessment before and after splint application
   C. PASG may be used to immobilize the femur fracture
   D. All of the above
29. When interpreting cervical spine x-rays, which of the following statements is true?
   A. The prevertebral space at the level of C-3 should be greater than 5 mm
   B. The predental space should not exceed 3 mm in adults or 4 mm in children
   C. A burst fracture (Jefferson’s fracture) of C-1 is a stable fracture
   D. Since most cervical spine injuries occur in the upper cervical spine, it is not necessary to see all of the cervical spaces on a screening lateral x-ray.

Locations in text:  1.) Vol II, Section 10, X-ray Skills 1

30. Which of the following statements is true regarding the management of pelvic fractures?
   A. If there is a small amount of blood at the meatus, attempt passage of a urinary catheter to see if it will go into the bladder
   B. Absent femoral pulses can be assumed to be due to arteriosclerotic disease until proven otherwise
   C. A guide wire assisted suprapubic catheter is an alternative method of decompressing the bladder if a urinary catheter is contraindicated
   D. Bleeding peritoneal lacerations should be explored in the emergency department

Locations in text:  1.) Vol 1, Section 4, Path 8 (#11)
                  2.) Vol 11, Section 9, Trauma Skills #3

31. The first drug for the initial treatment of systemic anaphylactic reactions is:
   A. Epinephrine
   B. Albuterol
   C. H1 receptor antagonist like diphenhydramine
   D. H2 receptor antagonist like zantac

Locations in text:  1.) Vol III, Section 11, AIR 8

32. ECG criteria for the use of fibrinolytics include all of the following EXCEPT:
   A. 1 mm ST-segment elevation in contiguous limb leads
   B. 2 mm ST-segment elevation in 2 or more precordial leads
   C. ST-segment depression and/or T-wave inversion
   D. New LBBB

Locations in text:  1.) Vol III, Section 12, CV 11

33. The biggest concern secondary to right ventricular infarct is:
   A. Pulmonary congestion and peripheral edema
   B. The need to aggressively treat hypotension with fluid therapy
   C. Early use of nitrates and Morphine
   D. Restrict fluid therapy to avoid pulmonary edema

Locations in text:  1.) Vol III, Section 12, CV 11

34. Every healthcare facility has an Emergency Preparedness plan to respond to hazards. Level I All Hazards Response is defined as:
   A. An event that requires limited additional resources and supplies, or the assistance of an outside agency.
   B. An event so large that it requires all available resources within the hospital and the assistance of many outside agencies.
   C. An event that requires only resources and supplies already present within the medical center
   D. None of the above

Locations in text:  1.) Vol III, Section 13, EMP 6
35. A 55 year-old female presents with 24 hours of vomiting, abdominal pain, fever, chills and burning on urination. Blood pressure is 76/40, pulse 110, respirations 20 and temperature 102.4° F (39° C). Past history includes asthma with use of steroids. The patient is examined and diagnosis with urosepsis. Electrolytes are: glucose 88, potassium 6.1, and sodium 130. There is no response to fluid resuscitation. What critical diagnosis must be considered?
   A. Adrenal crisis
   B. Diabetic ketoacidosis
   C. Thyroid storm
   D. Myxedema coma

Locations in text: 1.) Vol III, Section 14, END/M 1

36. The serum anion gap:
   A. Defines the amount of extra acids accumulated in the serum
   B. Is equal to the serum sodium minus the serum chloride plus bicarbonate (NA^+ - [Cl^- + HCO_3^-])
   C. Is normally equal to 12 plus or minus 2
   D. All of the above

Locations in text: 1.) Vol III, Section 14, END/M 6

37. A farmer is burned over most of his body when gasoline ignites in the garage. The most important initial step to consider after stopping the burning process is:
   A. Calculate fluid resuscitation using the Parkland Formula
   B. Manage the airway after noting soot in the mouth
   C. Establish IV lines, administer fluids to maintain urinary output at 50-70 mL/hr
   D. Call the burn center for consultation with a burn specialist

Locations in text: 1.) Vol III, Section 15, ENV 3

38. All of the following involve care of an amputated part EXCEPT:
   A. Rinse off dirt, gravel, or contaminants from limb with normal saline
   B. Freeze the amputated part
   C. Wrap moist areas of limb with moist normal saline dressing
   D. Keep intact skin dry if possible

Locations in text: 1.) Vol III, Section 16, FARM 2

39. An 85 year-old patient arrives after suffering trauma from a car crash. Initial vital signs are BP 90/68, P. 96, R 12. Which statement is most accurate?
   A. Pulse rate is not as reliable an indicator for stress in elderly patients as in younger patients
   B. Central venous access should not be attempted because of the severe complications seen in the elderly
   C. Volume replacement should be given at the same rate as any patient
   D. The adult respiratory distress syndrome is less likely to occur in the elderly patient versus younger patients

Locations in text: 1.) Vol III, Section 17, GER 1

CALS Oct 2014
40. When treating community-acquired pneumonia in the adult, which of the following pathogens does not usually need to be considered when choosing antibiotic treatment options:
   A. Mycoplasma
   B. H. Influenza
   C. Klebsiella
   D. Legionella

Locations in text: 1.) Vol III, Section 18, INF 1

41. Initial resuscitation of a patient in septic shock includes:
   A. Anticoagulant therapy and fluids
   B. Steroids and antibiotics
   C. DVT and stress ulcer prophylaxis
   D. Fluids and antibiotics

Locations in text: 1.) Vol III, Section 18, IN 3

42. The umbilical cord of a neonate contains:
   A. Four vessels
   B. Two arteries and one vein
   C. Two veins and one artery
   D. One large vessel

Locations in text: 1.) Vol III, Section 29, Neonatal 2

43. The following statements are true of status epilepticus management EXCEPT:
   A. A secure airway is essential and may require RSI.
   B. IV thiamine and glucose may be administered if hypoglycemia is present
   C. Maintain blood pressure at a hypotensive level during prolonged status epilepticus (over 45 minutes)
   D. If benzodiazepines are used to control seizures, the patient should be considered a candidate for longer acting anticonvulsants.

Locations in text: 1.) Vol III, Section 20, NEU 1

44. If a patient has symptoms suggestive of a stroke, when should a CT be obtained?
   A. Within the first 24 hours of admission
   B. Within 3 hours of admission to the hospital
   C. As soon as possible on admission to the emergency department
   D. It is not necessary to get a CT

Locations in text: 1.) Vol III, Section 20, NEU 2 & 3

45. A careful vaginal exam is often helpful in the determination of the etiology of 3rd trimester bleeding if an ultrasound is not immediately available.
   A. True
   B. False

Locations in text: 1.) Vol III, Section 21, OB 15

46. Complications in the 3rd stage of labor (after delivery of baby) include:
   A. Uterine atony with hemorrhage
   B. Uterine inversion
   C. Retained placenta
   D. All of the above

Locations in text: 1.) Vol III, Section 21, OB 15
47. Special considerations of the physiology and anatomy of small children include:
   A. The trachea is proportionally longer in infants than adults
   B. The cricoid cartilage forms the narrowest part of the pediatric airway
   C. The normal pulse rate for a newborn is 80-100, systole BP is 70-80 torr
   D. Decreased urinary output is a reliable indicator of decreased vascular volume

Locations in text:   1.) Vol III, Section 22, PED 1

48. The most important step in the initial management of shock is:
   A. Recognizing that shock is present
   B. Restoring adequate blood pressure
   C. Rapidly infuse volume expanders
   D. Start broad-spectrum antibiotics

Locations in text:   1.) Vol III, Section 12, CV 17 Shock Portal

49. Seizures due to alcohol withdrawal:
   A. Usually occur more than 48 hours after the patient stops consuming alcohol
   B. Are best prevented by giving a benzodiazepine early in the withdrawal syndrome
   C. Are more common in patients with a previous history of alcohol withdrawal seizures
   D. B and C

Locations in text:   1.) Vol III, Section 24, TOX 9

50. Nimodipine is:
   A. The drug of choice for hypertension in acute ischemic stroke
   B. A calcium channel blocker, which protects against vasospasm induced by subarachnoid hemorrhage
   C. ACE inhibitor used in the general management of CHF
   D. None of the above

Locations in text:   1.) Vol III, Technical Information, Drug List