IBSC

FP-C
Flight Paramedic Certification

Questions & Answers PDF

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Question: 1

A 14-year-old male who was involved in an All-Terrain Vehicle (ATV) accident is being airlifted for medical transport to a trauma center 50 miles away from the site of the accident. Which of the following basic trauma imaging modalities can be used in the field by field trauma providers to aid in rapid identification of trauma injuries not apparent on the primary assessment?

A. eFAST
B. RUSH
C. FAST
D. SMART

Answer: C

Explanation:
Correct answer: FAST
FAST, eFAST, and RUSH examinations all involve use of portable sonography in rapid evaluation of trauma patients to aid in better diagnosis and subsequently improved interventions in these patients. Focused Assessment with Sonography (FAST) is now regularly used in the field by transport providers to aid in identifying traumatic injuries that are not apparent to visual examination of the patient. FAST, while not technically a part of the primary trauma assessment, is considered to be an adjunct to the primary assessment and may be utilized during the primary assessment by field providers trained in use of the technique. FAST may be used to identify the presence of blood in the pericardium (tamponade) and three spaces in the peritoneal cavity.
The eFAST examination is an extension of the FAST examination, and is most likely to be performed in the Emergency Department by the (ED) physician or by a surgeon prior to surgery, versus in the field.
The RUSH examination is also a sonographic examination and was developed for use in the ED to evaluate patients experiencing hypotension, the cause of which had not yet been determined. RUSH stands for Rapid Ultrasound for Shock and Hypotension.
SMART is not an acronym for assessment of trauma patients, but is used for triage of mass casualty patients.

Question: 2

You are called to transport a patient who has overdosed on aspirin. You should expect to see which of the following most likely initial ABG results?

A. Respiratory alkalosis
B. Metabolic acidosis
C. Metabolic alkalosis
D. Respiratory acidosis

Answer: A

Explanation:
Correct answer: Respiratory alkalosis
Acetylsalicylic acid poisoning (aspirin) occurs with ingestion of greater than 150 mg/kg of aspirin, and can cause mild to severe symptoms which are dependent upon the amount of aspirin ingested. Mild intoxication results in symptoms of headache, vertigo, ringing in the ears (tinnitus), confusion, diaphoresis, hyperventilation, drowsiness, and nausea and vomiting. Patients with severe intoxication also experience these symptoms, as well as electrolyte and acid-base imbalance, and may also experience seizures and ultimately, coma.
The initial Arterial Blood Gas (ABG) results in aspirin toxicity typically reveal a state of respiratory alkalosis, as a result of the direct stimulation of the respiratory center by the salicylates. Without intervention, the acid-base imbalance will ultimately progress to a severe metabolic acidosis.

Question: 3

You obtain a 12-lead ECG on a 56-year-old male patient with chest pain. You see ST segment elevation in leads II and III. What does this indicate?

A. Inferior MI
B. Lateral MI
C. Posterior MI
D. Anterior MI

Answer: A

Explanation:
Correct answer: Inferior MI
Leads II, III, and AVF all look at the inferior surface of the heart.

Question: 4

Which of the following statements regarding arterial lines is most accurate?

A. Most members of a medical transport crew are able to place arterial lines.
B. The radial artery is most commonly chosen as the site for arterial line placement due to lower risk of injury at this site when compared to other potential insertion sites.
C. Arterial line placement allows for assessment of the hemodynamics of the right heart.
D. Arterial lines must be set up with a pressure bag and a continuous flush device.

Answer: D

Explanation:
Correct answer: Arterial lines must be set up with a pressure bag and a continuous flush device
Arterial lines are frequently inserted in patients who require invasive hemodynamic monitoring, systemic blood pressure and Mean Arterial Pressure (MAP). They are most frequently used when titrating of antihypertensive medications is indicated. While flight paramedicsare typically not certified

or able to insert arterial lines, they are required to be fully competent in the maintenance and troubleshooting of arterial lines, as well as interpretation of the data provided by the arterial line. The radial artery is most commonly chosen as the site for insertion of the arterial line due to the additional presence of blood supply from the ulnar artery and the ability to compress the site over the radial bone if needed. In setting up the arterial line, a pressure bag and continuous flush device need to be maintained to prevent thrombus formation in the line.

Question: 5

Which of the following possible anatomical sites which may be used for needle decompression in treatment of tension pneumothorax has been found to have the lowest predicted failure rate?

A. The 4th intercostal space using the lateral midaxillary approach
B. The 3rd intercostal space using the lateral midaxillary approach
C. The 2nd intercostal space using the midclavicular line approach
D. The 3rd intercostal space using the midclavicular line approach

Answer: A

Explanation:
Correct answer: The 4th intercostal space using the lateral midaxillary approach
When caring for a patient who has sustained a tension pneumothorax as a result of trauma, as part of establishing the ABCs should be needle decompression of the pneumothorax. A large-bore IV should be utilized for the needle decompression, and may be placed (on the affected side) in the 2nd intercostal space using the midclavicular line approach, or in the 4th or 5th intercostal space using the lateral midaxillary approach. Recent research has found that placement of the needle in either the 4th or 5th intercostal space using the lateral midaxillary approach has the lowest predicted failure rate across multiple population groups.

Question: 6

Which anatomical structure is the narrowest part of the neonatal upper airway?

A. The glottic opening
B. Cricoid ring
C. The trachea
D. The carina

Answer: B

Explanation:
Correct answer: Cricoid ring
Unlike adults, where the narrowest part of the upper airway is the glottic opening, the cricoid ring is the smallest opening in neonates and pediatric patients.

Question: 7

Which of the following injuries most commonly occurs as a result of a rear-end collision?

A. T12-L1 fracture
B. Pneumothorax
C. C5-C6 fracture
D. Dislocated hips

Answer: A

Explanation:
Correct answer: T12-L1 fracture
In a rear-end collision MVA (Motor Vehicle Accident), the occupants of the vehicle most commonly experience spinal injury in the T12-L1 area. This injury results from the rapid forward acceleration of the vehicle as a result of the rear impact, causing the vehicle to move forward under the occupants of the vehicle.
Other injuries commonly sustained during rear-end collision include femur, tibia/fibula, and ankle fractures; and injuries to the cervical spine, particularly at the C2 level. Pneumothorax and dislocated hips are injuries most commonly associated with front impact crashes.

Question: 8

You are transporting a 64-year-old male with staphylococcus aureus pneumoni
a. The patient has a history of alcoholism, is a type II diabetic, and recently had an influenza infection. Which of the following risk factors is the most likely cause of the patient's S. aureus pneumonia?
A. A recent influenza infection
B. A history of alcoholism
C. A history of diabetes
D. Community-acquired infection

Answer: A

Explanation:
Correct answer: A recent influenza infection
Pneumonia is defined as the inflammation of the lung parenchyma which may be caused by viral, bacterial, or fungal organisms, or it may be caused by aspiration of material into the lungs. S. aureus pneumonia is most often seen in IV drug users, patients who are immunocompromised, or as a complication of influenza infection.
A history of both alcoholism and diabetes increases risk of pneumonia from K. pneumoniae, S. pneumoniae, P. aeruginosa, and H. influenzae.

Question: 9

The patient you are transporting is displaying symptoms of myxedema madness. Which of the following is the most likely cause of her symptoms?

A. Hyperosmolar hyperglycemic state
B. Thyroid storm
C. Hypothyroidism
D. Acute adrenal insufficiency

Answer: C

Explanation:
Correct answer: Hypothyroidism
Myxedema madness, also referred to as myxedema psychosis, is a potential component of myxedema coma that manifests with symptoms of hallucinations, paranoia, depression, combativeness, agitation, and lack of attention to personal hygiene. The myxedema conditions result as a severe complication of hypothyroidism, primarily in individuals who are 60 years old or older. If medical air transport is required for patients who are experiencing myxedema madness, the transport team must make preparations to protect their own safety as well as the safety of the patient. Treatment of the underlying hypothyroid condition should result in resolution of the psychosis symptoms.

Question: 10

Overdose of what drug can cause Diabetes Insipidus like symptoms?

A. Vancomycin
B. Dilantin
C. Dobutamine
D. Etomidate

Answer: B

Explanation:
Correct answer: Dilantin (Phenytoin)
Dilantin overdose may cause SVT, ventricular dysrhythmias, coma, confusion, tremors, and Diabetes Insipidus like symptoms.

Question: 11

Which of the following Electronic Fetal Monitoring (EFM) findings is the single most important predictor of fetal well being?

A. The presence of early decelerations
B. A minimum of variability in the fetal heart rate
C. The presence of fetal movement
D. Moderate variability in the fetal heart rate

Answer: D

Explanation:
Correct answer: Moderate variability in the fetal heart rate
Variability in the Fetal Heart Rate (FHR) is indicative of a neurologically intact fetus that is responding to stimulation within its environment. In a healthy pregnancy that is nearing term, one expects to observe moderate variability in the FHR. This indicates adequate oxygenation of the fetus, a normal cord pH, and a maturing autonomic nervous system. Decreases in variability at- or near-term pregnancy are associated with hypoxia of the fetus and the presence of acidosis.
In order to diagnose minimal variability, the clinician must first ensure that the fetus is awake and that the mother has not received any medications that may cause sedation of both her and the fetus.
Fetuses which are less than 32 weeks gestation will also display minimal variability in the FHR as a result of immaturity of the central nervous system. Absence of variability may be observed also in preterm fetuses or during fetal sleep; pathological causes of absence of variability include fetal metabolic acidosis, fetal neurologic disorders, or in fetuses with cardiac arrhythmias. Marked (or increased) variability is typically seen during fetal movement or as a result of maternal movement during EFM (Electronic Fetal Monitoring) recording. A marked increase in variability may also be the first warning sign of impending fetal hypoxia.

Question: 12

Targeted urine output for the adult patient with a severe burn is:

A. 5 ml/kg/hour
B. 10 ml/kg/hour
C. 2 ml/kg/hour
D. 05.mL/kg/hour

Answer: D

Explanation:
Correct answer: 05.mL/kg/hour
Urine output is used to monitor fluid status, with the goal of 0.5mL/kg/hour output in adults with severe burn trauma.

Question: 13

Your trauma patient opens their eyes to painful stimuli, patient withdraws from pain, and only makes incomprehensible sounds.
What is this patient's GCS?

A. 4
B. 6
C. 8
D. 10

Answer: C

Explanation:
Correct answer: 8
The Glasgow Coma Scale (GCS) is composed of three components: eye opening (1 to 4 points), verbal response (1 to 5 points), and motor response (1 to 6 points). Eye opening to pain is worth 2 points, withdrawing from pain is 4 points, incomprehensible sounds is 2 points, for a total of 8 points.

Question: 14

A patient suffered blunt force trauma to their eye. Upon assessment, the patient is asked to look up, and the injured eye does not move the same as the unaffected eye, and the patient reports having "double vision."
What is the most likely cause?

A. Cranial nerve III is affected
B. Cranial nerve II is affected
C. Inferior rectus eye muscle is entrapped
D. The optic nerve is affected

Answer: C

Explanation:
Correct answer: Inferior rectus eye muscle is entrapped
Orbital fractures account for roughly 10% to 25% of all cases of facial fractures, are commonly seen in conjunction with motor vehicle accidents, and damage to the globe, optic nerve, and extraocular muscles are a significant concern. If the anterior chamber is flat, a ruptured globe is certain, so stop the examination, place a metal shield over the injured eye, and consult ophthalmology. If the globe appears intact and vision is preserved, check ocular motility. The inferior rectus is one of the seven extraocular muscles and is primarily responsible for depressing the eye (downward gaze). Fractures of the inferior wall of the maxillary sinus, with entrapment of the inferior rectus muscle, can cause restriction of vertical movement, resulting in diplopia. This is a surgical emergency.

Question: 15

(Na+) - (Cl- + HCO3-) is the equation for which laboratory value?

A. Metabolic acidosis
B. Corrected bicarbonate
C. Anion gap
D. Corrected sodium

Answer: C

Explanation:

Correct answer: Anion gap

Serum sodium, chloride, and bicarbonate levels are evaluated together to determine what is referred to as the anion gap. The anion gap represents the difference between the number of positively charged ions and negatively charged ions (cations and anions), and can indicate a state of acidosis in the event of a large gap. The formula for calculating the anion gap is as follows:

• Anion Gap=(Na+) - (Cl- + HCO3-)

A normal anion gap is considered to be 12(+/-4).

The acidosis is considered to be worse with greater anion gap (larger calculated number).

• Corrected sodium = Na++ [1.6 (glucose – 100) / 100].

The other answers are not lab value formulas.