Expert Field Medical Badge

Written Test Study Guide

Radiology: Imaging Trauma Patients in a Deployed Setting (CPG ID: 01)

1. The initial radiographic evaluation of a trauma patient begins with supine Anterior-Posterior (AP) chest and pelvis radiographs taken in the trauma bay usually with a(n) _____.

Page 2

2. T/F: Computed Tomography scanning has been largely replaced by cervical spine radiographic evaluation (CSRE) and should only be performed when CSRE is unavailable.

Page 2

3. What is the lowest level of care equipped with a Computed Tomography scanner?

Page 3

4. What is the lowest level of care equipped with a portable x-ray machine?

Page 3

5. Members of the trauma team should have _____ aprons and thyroid shields available near the trauma bay for radiation safety.

Page 3

6. Distance is also protective from radiation exposure. If feasible based on the patient's condition, any personnel without lead shielding should move a short distance away from the x-ray unit. The recommended minimal distance is _____.

Page 3

7. While the FAST scan has been validated only in hemodynamically unstable blunt trauma patients, it has become a standard tool in the trauma bay and Emergency Department (ED) in most trauma patients. FAST stands for_____.

Page 3

8. FAST in combat trauma has a sensitivity of only 56% and specificity of ___.

Page 3 & 4

9. T/F: The FAST exam remains the most sensitive test for hollow viscus injury and mesenteric injury.

Page 4

10. T/F: At the Role 3, properly trained providers including radiologists, surgeons, and emergency physicians, can perform and interpret FAST scans in the emergency department on a hand held portable device.

Page 4

11. A FAST examination is performed with a portable hand-held machine most commonly using a standard 3-7 MHz curved array _____ probe.

Page 4

12. The standard FAST examination is focused on evaluating for the presence of _____ in certain areas of the body.

Page 4

13. When performing a FAST examination on a patient, you inspect the right upper quadrant. You are inspecting between which two organs?

Page 4

14. When performing a FAST examination on a patient, you inspect the left upper quadrant. You are inspecting between which two organs?

Page 4

15. An 18g _____ IV is typically desired for Computed Tomography IV access.

Page 5

16. T/F: The goal of Computed Tomography contrast injection is to provide concurrent solid organ enhancement, arterial enhancement, and pulmonary arterial.

Page 6

17. T/F: When performing Computed Tomography scan on a Military Working Dog, utilize a scanning protocol based on the adult settings to include the doses of and rates of contrast administration.

Page 6

18. T/F: All patients evacuated through casualty evacuation should have images sent electronically ahead of time as well as have a CD created to send with the patient as a backup.

Page 7

19. T/F: Magnetic Resonance Imaging is widely used in theater, as its utility in the acute management of combat trauma was extensively establishment during Operation Enduring Freedom.

Page 7

20. All trauma patients arriving at a Role ___ will receive proper and expeditious radiologic screening of injuries.

Page 7

Aural Blast Injury Acoustic Trauma and Hearing Loss (CPG ID: 05)

1. T/F: Patients exposed to hazardous noise are only at risk for aural trauma.

Page 2

2. The symptoms of acoustic trauma are:

Page 2

3. Acoustic trauma may result in sensorineural hearing loss (SNHL) that is either _____or _____.

Page 2

4. The ear, specifically the _____, is the most sensitive organ to primary blast injury.

Page 2

5. T/F: The smaller the size of the tympanic membrane perforation, the greater the likelihood is of spontaneous closure.

Page 2

6. The majority of tympanic membrane perforations that close spontaneously do so within the first _____ after injury.

Page 2

7. Acute management of intratemporal facial nerve injury is to provide objective documentation of facial movement using the _____ scale.

Page 3

8. T/F: For significant facial pareses/paralyses, early administration of steroids must always be provided regardless of contraindications.

Page 3

9. Which inner ear abnormalities may cause vertigo?

Page 3

10. All Service Members that develop symptoms consistent with noise trauma (acute tinnitus, muffled hearing, fullness in the ear) should:

Page 3

11. What is the best course of action if you find debris in the external auditory canal or in the middle ear?

Page 3

12. Hearing loss that persists ___ hours after acoustic trauma warrants a hearing test or audiogram.

Page 4

13. T/F: Vestibular trauma to the inner ear may manifest in vertigo.

Page 4

14. All patients with subjective hearing loss and tinnitus following blast exposure should:

Page 4

15. Patients with TTS greater than _____ losses in three consecutive frequencies should be considered candidates for high dose oral and/or transtympanic steroid injections when not otherwise contraindicated.

Page 4

Burn Care (CPG ID: 12)

1. What are indications for endotracheal intubation during your initial burn survey?

Page 4

2. Burn casualties with injuries greater than ___ Total Body Surface Area (TBSA) are at high risk of hypothermia.

Page 4

3. T/F: When providing point of injury care to a burn patient, you must immediately debride blisters and cover burns with loose, moist gauze wraps or a wet clean sheet.

Page 4

4. Calculate a burn patient's initial burn size using the Rule of _____.

Page 4

5. Which type of burn is NOT included in the estimation of Total Body Surface Area (TBSA) used for fluid resuscitation?

Page 4

6. Which classification of burns are moist and sensate, blister, and blanch?

Page 4

7. Which classification of burns appear red, do not blister, and blanch readily?

Page 4

8. Which classification of burns appear leathery, dry, non-blanching, are insensate, and often contain thrombosed vessels?

Page 4

9. What is the Rule of 10s burn fluid resuscitation equation? Ensure you can apply it.

Page 5

10. For children suffering burn injuries, ___ x Total Body Surface Area (TBSA) x body weight in kg gives the volume for the first 24 hrs of fluid resuscitation.

Page 5

11. T/F: A hypotonic solution is the preferred resuscitation fluid for a burn patient.

Page 5

12. T/F: Both under- and over- fluid resuscitation of burn patients can result in serious morbidity and even mortality; patients who receive over 250 mL/kg in the first 24 hours are at increased risk for severe complications including acute respiratory distress syndrome and both abdominal and extremity compartment syndromes.

Page 5

13. At 8-12 hours post-burn, if the hourly IV fluid rate exceeds 1500 mL/hr or if the projected 24 hr total fluid volume approaches 250 mL/kg, initiate 5% _____ infusion for an adult burn patient.

Page 5

14. What are clinical signs of inhalation injury?

Page 7

15. Definitive care for US service members suffering from burn injuries is provided at _____.

Page 12

16. T/F: Early ambulation and physical therapy, is critical to the long-term functional outcome in burn patients. Once post-operative dressings are removed, perform range of motion of all affected joints.

Page 14

17. _____ is the most common infectious complication with pediatric burn patients and usually presents within 5 days of injury.

Page 15

18. A patient has suffered burn injuries to the entire anterior torso (chest and abdomen), the anterior and posterior of both arms, and the anterior of his face and neck. Calculate the patient's initial burn size using the Rule of Nines.

Pages 4 and 19

19. A patient has suffered burn injuries to the anterior and posterior legs and the perineum. Calculate the patient's initial burn size using the Rule of Nines.

Pages 4 and 19

20. A patient has suffered burn injuries to the anterior of her face, neck, and torso (chest and abdomen). Calculate the patient's initial burn size using the Rule of Nines.

Pages 4 and 19

Military Working Dogs (CPG ID: 16)

1. T/F: In addition to providing immediate care to preserve life, limb, or eye sight when veterinary personnel are not available, human healthcare providers are also responsible for providing routine medical, dental, or surgical care to Military Working Dogs in combat or austere areas of operation.

Page 4

2. The _____ is the best person to control the Military Working Dog; they have the most accurate information about past medical problems and the current situation, and they have first aid training and can assist in care.

Page 5

3. _____ is the normal temperature (rectal) range for a Military Working Dog at rest.

Page 7

4. _____ is the heart/pulse rate range for a Military Working Dog at rest.

Page 7

5. T/F: The normal blood pressure for a Military Working Dog at rest is systolic 120 mmHg/diastolic 80 mmHg.

Page 7

6. Use the _____ vein for long-term fluid therapy, large volume fluid delivery, and repeated blood sampling on Military Working Dogs.

Page 8

7. T/F: When introducing a catheter into a Military Working Dog, it is acceptable to create a small skin nick over the intended catheter insertion site to facilitate penetration of the dog's thick skin.

Page 9

8. The arterial pulse of a Military Working Dog is best palpated at the _____ artery on the medial aspect of the proximal thigh in the inguinal area, or at the dorsal metatarsal artery on the dorsal aspect of the proximal hind paw.

Page 12

9. Pulse oximetry probes used for people (typically finger probes) are best placed on the _____ for optimal reliability in unconscious, sedated, or anesthetized dogs.

Page 13

10. What are the 3 characteristic breathing patterns typically displayed in Military Working Dogs in respiratory distress?

Page 15

11. When performing a tracheostomy on a Military Working Dog, make a transverse incision completely through the _____ ligament.

Page 21

12. While placing an endotracheal tube in a Military Working Dog, you palpate the dog's neck and feel 2 tubes. This indicates that the endotracheal tube is in the dog's _____.

Page 23

13. When performing cardiopulmonary resuscitation on a Military Working Dog (MWD), begin sustained, forceful chest compressions with the MWD in lateral recumbency (on either side) at a rate of _____ compressions per minute. Sustain compression for at least 2-3 minutes per cycle.

Page 36

14. T/F: If single-person cardiopulmonary resuscitation is performed on a Military Working Dog, the responder should only perform ventilation, as this optimizes circulation.

Page 38

15. T/F: Conventional human tourniquets applied to the limb of a Military Working Dog are an unreliable intervention to effectively control hemorrhage.

Page 42

16. Calculate the approximate safe but effective crystalloid bolus volume for a 55 pound Military Working Dog experiencing signs and symptoms of shock.

Page 43

17. T/F: Gastric Dilation-Volvulus Syndrome (GDV) in Military Working Dogs occurs when the stomach rapidly dilates with fluid, food, and air and then rotates along the long axis (volvulus). When volvulus develops, the esophagus and duodenum become twisted, preventing the passage of stomach contents.

Page 56

18. Hypothermia in Military Working Dogs caused by low body temperature due to trauma, toxicity, underlying illness, or anesthesia and surgery is classified as _____ hypothermia.

Page 71

19. Calculate the estimated percent of total body surface area burned on a Military Working Dog suffering from burns to the head, neck, chest, and abdomen.

Page 85

20. For PO supplementary analgesia of an injured Military Working Dog, administer _____ 5-10ml/kg PO q8-12h for up to 5 days.

Page 104

Whole Blood Transfusion (CPG ID:21)

1. How long can whole blood collected in the anticoagulant CPD be stored?

Page 2

2. How long can whole blood collected in the anticoagulant CPDA-1 be stored?

Page 2

3. If stored at room temperature, fresh whole blood must be destroyed if not used within what time period?

Page 2

4. T/F: The most important safety consideration in transfusing whole blood is that donor red blood cells be compatible with the recipient to avoid acute hemolytic transfusion reactions.

Page 2

5. How often SHOULD titer and transfusion transmitted disease retesting be conducted?

Page 2

6. In order to mitigate the risk of transfusion-associated acute lung injury (TRALI), the Armed Services Blood Program collects whole blood from everyone EXCEPT:

Page 2

7. _____ is the preferred resuscitation product for the pre-hospital treatment of patients in hemorrhagic shock.

Page 2

8. Storage lesion describes the degradation of the RBC involving the loss of what?

Page 4

9. T/F: Fresh whole blood (FWB) is FDA-approved and is intended or indicated for routine use.

Page 4

10. Fresh whole blood is to be used only when:

Page 4

11. T/F: Fresh whole blood should routinely be collected from pre-screened donors as a way to maintain a routine inventory of Walking Blood Bank – Stored Whole Blood products.

Page 4

12. In general, whole blood units should not be collected from donors more frequently than every ____ weeks.

Page 6

13. T/F: In situations where there are a limited number of donors and a dire need for blood, no more than three units may be taken from a single donor.

Page 7

14. Is there a known contraindication to using whole blood in pediatric casualties?

Page 7

15. A massive transfusion in children is defined as ____ ml/kg.

Page 7

Infection Prevention in Combat-related Injuries (CPG ID:24)

1. T/F: Infection Prevention in Combat-related Injuries standard precautions apply to all patients, regardless of suspected or confirmed infectious status.

Page 3

2. The World Health Organization's "five moments of hand hygiene" include:

Page 3

3. What are Infection Prevention in Combat-related Injuries standard precautions?

Page 3

4. T/F: When implementing infection prevention measures in a combat zone, cohorting is the process of clustering host nation patients (who are not eligible to evacuate from theater) and U.S. and coalition patients (who are eligible for evacuation from theater) and separate when possible to reduce the risk of cross-contamination with multi-drug resistant organisms.

Page 3

5. _____ and _____ should be worn with all patients suspected or known to have multi-drug resistant organism colonization or infection with C. difficile- infection (CDI).

Page 3

6. Daily _____of ICU patients has shown a reduction of infections with vancomycin-resistant enterococci (VRE) and methicillin-resistant staphylococcus aureus (MRSA).

Page 4

7. T/F: Antimicrobial drug usage has no impact on the development of multidrug-resistant organisms.

Page 4

8. T/F: All facilities should avoid unnecessary empiric use of broad spectrum antibiotics.

Page 4

9. T/F: Prolonged duration of prophylaxis has been shown to decrease long term rates of infections in patients with combat-related open fractures.

Page 4

10. Blast injuries, especially those related to_____, present a unique bloodborne pathogen risk if an impaled body part is introduced into the trauma patient.

Page 4

11. T/F: The risk of transmission for human immunodeficiency virus is considered very high after blast injury and generally warrants immediate action regardless of the region of operation.

Page 5

12. For a patient that sustained injuries from a suicide bomber, testing for Hepatitis B virus (HBV) and human immunodeficiency virus (HIV) should be obtained _____ and up to six months post-exposure.

Page 5

13. Which role of care should have a designated Infection Prevention and Control Officer?

Page 5

14. All facilities responsible for trauma care should monitor adherence to _____as listed in the Joint Trauma System guidelines for infection prevention after combat-related injuries and present rates to providers regularly.

Page 6

15. T/F: All facilities responsible for trauma care should monitor adherence to antimicrobial prophylaxis regimens as listed in the JTS guidelines for infection prevention after combat-related injuries and present rates to providers regularly.

Page 6

Inhalation Injury and Toxic Industrial Chemical Exposure (CPG ID:25)

1. What substance is NOT a highly water soluble irritant?

Page 2

2. Treatment for chlorine inhalation includes:

Page 3

3. Which chemical irritant has a sweet, pleasant smell of mown hay?

Page 3

4. Which chemical irritant may produce a severe cough with laryngospasm when exposed to high concentrations?

Page 3

5. Which chemical irritant smells like rotten eggs?

Page 3

6. Which chemical irritant produces a “knockdown” effect, a sudden loss of consciousness, when exposed to high concentrations?

Page 3

7. Which chemical irritant forms a strong base which can cause mucosal irritation, severe upper airway irritation, and alkali skin burns when reacting with water?

Page 6

8. The triad of severe cyanide toxicity consists of:

Page 4

9. Which of the following is the most commonly available antidote for cyanide poisoning?

Page 4

10. T/F: High index of suspicion must be present when treating patients exposed to carbon monoxide as elevated CO may be present despite normal PaO2 and SpO2 readings.

Page 4

Frozen and Deglycerolized Red Blood Cells (CPG ID:26)

1. Deglycerolized Red Blood Cells are derived from _____ ml of whole blood collected in Citrate/Phosphate/Dextrose or Citrate/Phosphate/Dextrose/Adenine collection bags.

Page 2

2. Red Blood Cells are stored for up to 6 days at 1 – 6 °C before being frozen in a cryoprotectant (40% w/v glycerol), and stored in the frozen state at minus 65 °C or colder for up to _____.

Page 2

3. T/F: Each unit of deglycerolized red blood cells (DRBCs) should be considered equivalent to a fresh unit of RBCs since they are frozen within 6 days of collection and have a 14-day shelf-life upon deglycerolization.

Page 2

4. What are the clinical indications for use of each unit of deglycerolized red blood cells (DRBCs)?

Page 2

5. How long does it take to thaw frozen red blood cells in a plasma thawer?

Page 3

6. How long does it take to thaw frozen red blood cells in a 42°C water bath?

Page 3

Interfacility Transport of Patients Between Theater Medical Treatment Facilities (CPG ID: 27)

1. Optimal but not necessarily definitive patient stabilization before transport is critical and encompasses four connected elements. What are these elements?

Page 4 & 5

2. T/F: Medical capability is the quality or state of being able to provide the expected and required medical services and support to the casualty.

Page 5

3. _____ transport is required when “the patient has a critical illness or injury that acutely impairs one or more vital organ systems such that there is a high probability of imminent or life-threatening deterioration in the patient's condition during transport.”

Page 5

4. The gold standard for unstable patient transport is movement with critical care capability led by a _____ who is qualified, experienced, and proficient at critical care transport.

Page 5 & 6

5. T/F: Intermediate en route care should be initiated for a patient that does not require critical care but is in need of a dedicated medical attendant with at least the knowledge and skills equivalent to a paramedic as defined by the National Emergency Medical Services (EMS) Scope of Practice Model.

Page 6

6. Who assumes risk of reduced capability when a medical evacuation organization is not capable of providing the required intratheater en route care capability?

Page 6

7. T/F: Well trained teams improve outcomes so en route care teams who train together prior to operational assignment may optimize patient outcomes.

Page 7

8. What are examples of specific medical materials designated as patient movement items (PMI)?

Page 7

9. T/F: The senior military person (or designated on-ground mission commander) present in coordination with the senior medical person determines when to request medical evacuation and the precedence assigned to the patient for evacuation.

Page 8

10. The MIST report was recently incorporated into the 9-line medical evacuation request. MIST stands for:

Page 9

11. T/F: The Interfacility Transport of Patients Between Theater Medical Treatment Facilities Clinical Practice Guideline defines medical direction as the direct technical authority to determine capability, promulgate medical policy, and the authority to enforce the standard of care through quality assurance with local privileging actions of individual en route care providers.

Page 9 & 10

12. _____ medical direction includes protocol development and review, continuing education of prehospital providers, and quality improvement activities.

Page 10

13. The commander of the unit assigned to perform medical evacuation should appoint the unit's_____as the medical director.

Page 10

14. T/F: Medical direction at the regional level (Patient Evacuation Control Center) is centered on online medical direction activities.

Page 11

15. What are the responsibilities of a regional medical director?

Page 12

16. What are the approved Joint Trauma System patient care records (PCR) for inter-facility patient transports?

Page 13

17. Which approved Joint Trauma System patient care record (PCR) is primarily used for rotary wing transports from point of injury or inter-facility transfer?

Page 13

18. Which approved Joint Trauma System patient care record (PCR) is primarily used for Critical Care Air Transport Team movements?

Page 13

19. Which approved Joint Trauma System patient care record (PCR) is required whenever a search or rescue is attempted or accomplished that involves Navy personnel or assets?

Page 13

20. T/F: While the patient is delivered to the receiving medical treatment facility, the patient care record should be maintained with the evacuation unit.

Page 13

Pain, Anxiety, and Delirium (CPG ID: 29)

1. T/F: The Acute pain service (APS) should be established and be an integral part of casualty care starting at the Role I.

Page 3

2. T/F: Sedation should be optimized as a priority over pain control.

Page 3

3. Adjuncts can greatly increase patient safety and the effectiveness of narcotics to treat pain while reducing side effects. What are examples of adjuncts?

Page 4

4. If is it not feasible to incorporate the acute pain service (APS) team into trauma rounds, then the APS is responsible for _____ pain rounds, pain management consults, and reports to the trauma team leader.

Page 4

5. What are standardized and validated scoring systems for the assessment of pain, anxiety, and delirium?

Page 5

6. The Richmond Agitation Sedation Scale (RASS) is used to assess _____.

Page 5

7. The goal for patients with delirium is to achieve a delirium free state as measured by the _____.

Page 5

8. The ABCDE's should be incorporated into treatment care plans as efforts to prevent delirium in critically injured patients. The "E" stands for _____.

Page 6

9. T/F: Seriously injured patients who are not intubated should be assessed every 1-4 hours for the presence of pain.

Page 6

10. T/F: Adequate early pain control has been shown to reduce post-traumatic stress disorder and ongoing pain control is an obligatory part of trauma care.

Page 7

11. _____, in parenteral doses of 0.15-0.3 mg/kg, has been shown to reduce pain scores, total narcotic use, and need for rescue medication when used with morphine for acute pain control.

Page 7

12. What is not a narcotic agent of choice approved for repeated Patient Controlled Analgesia (PCA) pump?

Page 8

13. T/F: Low molecular weight heparin (LMWH) use in patients undergoing epidural anesthesia increases the risk of spinal or epidural hematoma, which may cause long term or permanent paralysis.

Page 9

14. What are medications used to treat anxiety and agitation?

Page 10 & 11

15. T/F: Continuous dosing of analgesics and anxiolytics, as opposed to intermittent dosing, has been shown to reduce the duration of mechanical ventilation and continuous dosing of analgesics and anxiolytics should be instituted prior to intermittent dosing.

Page 11

16. Continuous infusions should be stopped _____ to obtain a reliable physical examination, including neurologic assessment, and to perform a spontaneous breathing trial in ventilated patients.

Page 4

17. _____ is a safe antiemetic in the adult population and is increasingly the therapy of choice for acute undifferentiated and trauma-related nausea.

Page 12

18. The DoD/VA Pain Rating Scale requires patients to select their pain level on a scale of 0-10, with 10 being _____.

Page 18

19. Battlefield Acupuncture (BFA) is a non-pharmacological pain therapy for mild to moderate pain or an adjunct to opioid medications. BFA is accomplished by applying needles to which body part?

Page 21

War Wounds: Debridement and Irrigation (CPG ID:31)

1. During debridement, extremity wounds should be extended _____.

Page 2

2. During debridement, truncal wounds should be extended _____.

Page 2

3. Due to their heavy contamination and the diminished healing capacity, how long should the closure of blast wounds be avoided after the injury occurs?

Page 3

4. Assurance of _____ and removal of all nonviable skin, fat, fascia, muscle, and bone are essential to reduce the load of contamination and necrotic tissue prior to dressing application.

Page 4

5. All methods of wound irrigation are adjuncts and not substitutes to what?

Page 4

6. The current recommendation of irrigation volume for small wounds is:

Page 4

7. The current recommendation of irrigation volume for moderate wounds is:

Page 4

8. The current recommendation of irrigation volume for large wounds or wounds with evidence of heavy contamination is:

Page 4

9. T/F: Normal saline, sterile water and potable tap water all have comparable efficacy and safety as irrigation solutions.

Page 4

10. T/F: The inclusion of irrigation fluid additives such as iodine, bacitracin or antibiotics has proven benefits.

Page 4

11. What are risk factors of invasive fungal infections assessed for during the first wound debridement?

Page 6

12. T/F: All wounds must be closed prior to arrival at a definitive care location to prevent further bacterial and fungal introduction.

Page 6

13. T/F: Placement of antibiotic impregnated polymethylmethacrylate (PMMA) can be used as an adjunct to debridement and irrigation of a wound to deliver increased local antibiotic concentrations while minimizing the associated side effects of high systemic loads of these antibiotics.

Page 7

14. A(n) _____ event refers to an iatrogenic event in which a sponge or surgical instrument is deliberately or unintentionally left behind while the wound proceeds to definitive management.

Page 8

15. Explosive munitions injure through how many major mechanisms?

Page 12

Unexploded Ordnance (UXO) Management (CPG ID:41)

1. Propelled explosive devices impaled in a casualty usually consist of:

Page 2

2. T/F: All retained ordnance impaled in a patient should be considered “armed” or activated to a degree that final triggering of the fuse would cause the ordnance to explode.

Page 2

3. T/F: Only enemy patients require an initial inspection in order to find and remove all weapons and ammunition prior to entry into a transport vehicle or treatment facility. Friendly patients should not have their treatment delayed.

Page 3

4. Safe removal of impaled UXO's require significant coordination with:

Page 3

5. As the common impaled ordnance types have a number of variants, the _____ can provide advice on specific concerns to prevent arming and detonating the device.

Page 4

6. T/F: Standard metal detector wands are NOT recommended for use to assist with locating loose or impaled UXOs due to the increased risk of arming or detonating the device.

Page 4

7. T/F: When conducting treatment on a patient with an impaled UXO, it is ideal to use a confined space such as a bunker to limit the potential trauma from a blast to those not directly involved in treatment.

Page 4

8. Which imaging device is considered safe with respect to potential inadvertent triggering of a UXO?

Page 4

9. What piece of equipment is recommended for use during surgery on a patient with an impaled UXO?

Page 5

10. Who should the final selection of the surgeon(s) to conduct operations on patients with an impaled UXO be left up to?

Page 5

11. Personnel participating in surgery on a patient with an impaled UXO should wear what protective equipment?

Page 5

12. Amputation of a limb with an impaled UXO may occur when?

Page 5

The i-STAT Portable Blood Analyzer in Austere Locations (CPG ID:47)

1. What device is best described as a portable blood analyzer?

Page 1

2. _____ is defined as a pathology or laboratory test that is performed at the site of clinical interaction, in a non-laboratory setting, allowing immediate decision regarding treatment.

Page 3

3. T/F: While using an i-STAT device, one of the most important environment factors that medics must always be cognizant of are extremes in ambient temperatures/exposure to extreme temperatures can render results inaccurate.

Page 3

4. What are lab values the i-STAT can measure?

Page 3

5. The results from the i-STAT are generally available in ____ minutes or less.

Page 3

6. T/F: i-STAT cartridges are each loaded with a sample of the patient's urine and inserted into the bottom port of the analyzer for analysis.

Page 3

7. T/F: i-STAT cartridges must be frozen to maintain their integrity and reliability.

Page 4 & 5

8. T/F: Optimal operating temperature for the i-STAT is 16—30 ºC (61—86ºF).

Page 5

9. T/F: When executing a blood draw for the i-STAT device on a patient with IV fluids being administered, you must draw blood proximal to an IV site.

Page 6

10. T/F: When drawing a blood sample for an i-STAT, it is recommended to have the patient pump their fist multiple times to decrease the chance of missing the vein.

Page 6

11. Prior to using an i-STAT cartridge, it must be removed from refrigerated storage and kept at room temperature in its protective pouch for at least ___ minutes.

Page 6

12. T/F: Liquid controls, which are injected into i-STAT cartridges, verify the cartridges are producing accurate results and should be used each time a new batch of cartridges is opened.

Page 7

13. i-STAT does not recommend the use of ____ cartridges for patients receiving propofol or thiopental sodium.

Page 8

14. When using an i-STAT device, _____ and creatine can increase creatinine measurements by 0.20—0.25 mg/dl.

Page 8

15. T/F: The i-STAT device will function for 15 days with expired software.

Page 9

16. What is the ideal method to update an i-STAT device without internet connectivity?

Page 9

17. T/F: When running the i-STAT external simulator, the electronic simulator will fail if high relative humidity interferes with the measurements.

Page 12

18. If the i-STAT analyzer and simulator have been stored separately in areas where the ambient temperature differs by more than ___°C (___°F), allow the simulator and analyzer to stand in the same place for 30 minutes before inserting the simulator into the analyzer.

Page 12

19. Liquid controls used in a cartridge that measures oxygen concentration must stand at room temperature for a minimum of __ hours before use; controls for other analytes only need to equilibrate at room temperature for ___ minutes.

Page 13

20. How frequently are CLEW software updates on the i-STAT device are mandated?
Page 15

Burn Wound Management in Prolonged Field Care (CPG ID: 57)

1. A provider of prolonged field care must first and foremost be an expert in _____.

Page 2

2. Burns covering greater than ____ of the total body surface area (TBSA), or those with smoke inhalation injury (and airway or breathing problems), are life threatening.

Page 2

3. T/F: Hypothermia risk is high in burn patients. Anticipate that all burn casualties will become hypothermic and take immediate measures to prevent it by covering patient. Aggressively rewarm if temperature falls below 36°C (96.8°F).

Page 2

4. All patients with burns covering greater than ____ total body surface area (TBSA) should be intubated because total-body swelling will tend to obstruct the airway.

Page 2

5. What is the MINIMUM recommendation regarding airway management when providing prolonged field care for a burn patient?

Page 3

6. Monitoring _____ is an important capability for all intubated patients. A rising _____ could indicate clogging of endotracheal tube or poor ventilation from another cause (e.g.,bronchospasm, tight eschar across chest).

Page 3

7. T/F: For large wounds, calculate the size of the wound by using the patient's hand size (including fingers) to represent a 1% TBSA.

Page 4

8. Sunburns are an example of _____ degree burns.

Page 5

9. Over the first 24–48 hours post burn, _____ is lost into the burned and unburned tissues, causing hypovolemic shock (when burn size is >20%).

Page 6

10. T/F: Plain water is ineffective for shock resuscitation and can cause hyponatremia.

Page 7

11. _____is the main indicator of resuscitation adequacy in burn shock.

Page 8

12. For prolonged care of burn patients, a(n) _____ infusion may provide more consistent analgesia and help conserve supplies of analgesic medications.

Page 9

13. When providing wound care for a burn patient, you can use _____ nylon dressing as an alternative to topical antimicrobial cream.

Page 9

14. T/F: When performing an escharotomy incision on a burn patient, you must not carry the incision across any of the involved joints.

Page 12

15. _____ and Exercise are included in the “best”, “better”, and “minimum” care recommendations when treating a patient with an extremity burn.

Page 19

Frostbite and Immersion Foot Care (CPG ID: 59)

1. The ultimate mechanism of cold injury involves these combination of factors:

Page 2

2. T/F: Increased rates of frostbite occur at extreme high altitude secondary to ambient temperature increases and microcirculatory changes that occur at altitudes less than 17,000 ft.

Page 2

3. T/F: All patients with identified cold injury should be considered trauma patients first to identify other life threatening injuries.

Page 2

4. What must be established prior to making the diagnosis of cold injury?

Page 2

5. A patient is experiencing a superficial skin injury; pain on re-warming, numbness, hyperemia, occasional blue mottling, swelling and superficial desquamation. Classify the degree of cold injury the patient is suffering from.

Page 2

6. A patient is experiencing a partial thickness skin injury; vesiculation of the skin surrounded by erythema and edema, swelling and superficial desquamation, numbness, and hyperemia. Classify the degree of cold injury the patient is suffering from.

Page 2

7. A patient is experiencing entire thickness of skin extending into the subcutaneous tissue; bluish to black and non-deformable skin, hemorrhagic blisters, vesicles not present, and ulcerations. Classify the degree of cold injury the patient is suffering from.

Page 2

8. A patient is experiencing full thickness damage to the skin and bone; area cold to touch and feels stiff. Classify the degree of cold injury the patient is suffering from.

Page 2

9. T/F: For the sake of caution in the field, the recommendation is to treat all acute cold injuries presentations of cold injury as frostnip.

Page 3

10. _____ is a syndrome related to prolonged exposure to moisture causing water logging of the feet.

Page 3

11. What is the BEST treatment when attempting to re-warm a patient with frostbite?

Page 3

12. During the re-warming process for frostbite, which medication should be utilized liberally for pain management?

Page 3

13. After re-warming a patient with cold injuries/frostbite, what measures should you take during the course of treatment?

Page 3

14. What are some factors that will qualify a patient with cold injuries as a candidate for Thrombolytic Therapy?

Page 4

15. For a patient that has severe frostbite on two extremities, what is maximum rate of Tissue Plasminogen Activator (tPA)?

Page 4

16. T/F: If a third degree frostbite forms an eschar, it should be immediately debrided, even if in an operational environment.

Page 5

17. For minor cold injuries, local wound care can be performed with the addition of what?

Page 5

18. T/F: Surgical debridement should be done at a definitive care site outside of theater.

Page 5

19. What is the process for rewarming the extremity of a patient diagnosed with immersion foot?

Page 5

20. If you are concerned that infection is present for a patient with immersion foot, which bacteria should treatment target?

Page 5

Traumatic Brain Injury Management in Prolonged Field Care (CPG ID:63)

1. A Glasgow Coma Scale (GCS) score of 13-15 indicates a traumatic brain injury (TBI) severity classification of:

Page 3

2. A Glasgow Coma Scale (GCS) score of 9-12 indicates a traumatic brain injury (TBI) severity classification of:

Page 3

3. A Glasgow Coma Scale (GCS) score of 3-8 indicates a traumatic brain injury (TBI) severity classification of:

Page 3

4. T/F: In no circumstance should a neurologic examination take priority over measurement of the optic nerve sheath diameter, and all results must be considered in the context of the neurologic examination and overall patient status.

Page 3

5. T/F: Visualizations of spontaneous venous pulsations with an opthalmoscope can reassure the provider that intracranial pressure (ICP) is not critically elevated.

Page 4

6. What is the target systolic blood pressure in polytrauma patients with ongoing bleeding and a suspected traumatic brain injury (TMI)?

Page 5

7. What is the target urine output for a polytrauma patient with a suspected traumatic brain injury (TBI)?

Page 5

8. T/F: Colloids and hetastarches are the preferred fluid for traumatic brain injury (TBI) patients.

Page 5

9. If the Glasgow Coma Scale (GCS) score is ≤__ or there is facial trauma with compromised airway, a definitive airway is most likely needed.

Page 6

10. Every effort should be made to optimize airway placement for a traumatic brain injury (TBI) patient on the first attempt by doing:

Page 6

11. T/F: Patients typically require less sedation after cricothyroidotomy than after endotracheal tube (ETT) placement.

Page 6

12. What are measures to reduce intracranial pressure?

Page 7

13. What potentially adverse complications can mannitol cause in a traumatic brain injury (TBI) patient?

Page 8

14. When treating patient with traumatic brain injury, what are the “best” antibiotic options?

Page 9

15. What are a common signs of non-convulsive seizures in traumatic brain injury (TBI) patients?

Page 10

16. Which medication is preferred to lower a traumatic brain injury (TBI) patient’s core body temperature?

Page 10

17. In a traumatic brain injury (TBI) patient, target a blood glucose level of ____mg/dL via handheld glucometer to avoid both hypoglycemia and hyperglycemia.

Page 11

18. T/F: Hyperglycemia is more harmful to the brain than hypoglycemia.

Page 12

19. T/F: Neuromuscular blocking agents will mask seizures and clinical examination changes in traumatic brain injury (TBI) patients.

Page 12

20. Why should traumatic brain injury (TBI) patients be loaded with their head toward the front of the aircraft during fixed wing transport?

Page 12

Drowning Management (CPG ID:64)

1. What are the steps of retrieving a drowning victim in a body of water?

Page 5

2. Once you get a drowning victim on land, you call for additional help and ensure the victim's head and feet are at the same level. The victim is unconscious and not breathing. What is your next step?

Page 6

3. T/F: The Heimlich maneuver is no longer recommended for drowning.

Page 7

4. Consider _____as many drowning patients swallow water prior to inhaling and between 60-80% will vomit at some point during recovery or resuscitation.

Page 8

5. When do you terminate resuscitation efforts in the field for a drowning victim?

Page 9

6. T/F: Drowning victims with return of spontaneous circulation (ROSC) who remain comatose should NOT be actively rewarmed above 90-93°F/32-34°C.

Page 9

7. Water in lungs washes out _____causing atelectasis (alveolar collapse), diminished gas transfer, ventilation perfusion mismatch, and hypoxia.

Page 11

8. A drowning victim that was rescued from _____waters may have increased chance of lung injury and require bronchoalveolar lavage to cleanse.

Page 11

9. What are the risk factors for swimming induced pulmonary edema (SIPE)?

Page 13

10. For patients who have been diagnosed with Swimming Induced Pulmonary Edema, management of treatment will consist of:

Page 13

Chemical, Biological, Radiological and Nuclear (CBRN) Injury Part I (CPG ID: 69)

1. T/F: Initial care of the CBRN casualty should be approached in the same manner as other casualties.

Page 3

2. In a CBRN situation, _____ and _____is the foundation for further management, and is key not only for initiating patient treatment but also for preventing contamination of medical personnel, equipment, and facilities.

Page 3

3. In a high-threat environment due to a CBRN attack, what military-issued personal protective equipment (PPE) should personnel be aware of?

Page 4

4. What is a CBRN evacuation planning consideration when incorporating a Military Treatment Facility (MTF)?

Page 5

5. What is the first priority to be coordinated when a CBRN attack has occurred?

Page 8

6. Any casualty with an area suspicious of having been exposed to a liquid chemical agent is automatically medically triaged as immediate until?

Page 8

7. T/F: All CBRN agents will cause immediate symptoms, so you will know how to categorize each patients during triage.

Page 8

8. What does CRESS stand for?

Page 9

9. This acronym is used to improve rapid identification of the type of chemical agent exposure.

Page 9

10. Before applying Tactical Combat Casualty Care (TCCC) to a possible CBRN patient, it is important to:

Page 10

11. After initial assessment of casualty in CBRN-threat environment for the presence or absence of CBRN symptoms using the CRESS algorithm, what should happen next?

Page 11

12. What is the priority during “hot zone” care during a CBRN attack?

Page 13

13. In the warm zone, attention is given to decontamination and reassessment of the casualty. This phase occurs at a _____.

Page 14

14. “Expose to treat” is used by decontamination personnel when the provider deems it in the best interest of the casualty to remove personal protective equipment (PPE) to _____.

Page 14

15. Assessment at the Warm Zone for CBRN consists of _____.

Page 15

16. Once the decontaminated casualty has passed into the cold zone, they should _____.

Page 16

17. After the decontamination process to a casualty is completed in the cold zone, what should be the first priority?

Page 16

18. T/F: Casualties that reach the cold zone have been decontaminated and are now suitable for the full spectrum of care appropriate to the clinical environment and capabilities.

Page 16

19. T/F: Thorough decontamination and complete removal of a casualty’s clothing eliminates all contaminated debris when treating a CBRN casualty.

Page 16

20. Providers dealing with CBRN contaminated foreign material or dressings can wear 3 pairs of nitrile gloves. The outer glove should be discarded every _____ minutes.

Page 16

Chemical, Biological, Radiological and Nuclear (CBRN) injury Response Part 2 (CPG ID: 69)

1. The hallmark clinical presentation of _____ that leads to diagnosis is tissue hypoxia without cyanosis with the finding of metabolic acidosis.

Page 4

2. T/F: When a victim has been exposed to cyanide in a gas form, clothing should be remove before evacuation from location.

Page 4

3. What should be done before decontaminating a patient who has been exposed to cyanide with irrigation solutions?

Page 4

4. For a patient that has been exposed to cyanide, the mainstay of treatment is antidote therapy with _____.

Page 6

5. If the preferred cyanide antidote is not available, _____ can be used.

Page 6

6. Nerve agents consist of mainly two classes which are _____ and _____.

Page 7

7. Rapid antidote treatment is extremely important since some nerve agents can irreversibly bind to _____.

Page 8

8. The speed of symptom onset depends on the route of exposure and dose of the agent. _____tends to result in faster onset of symptoms and can quickly cause death due to rapid systemic distribution.

Page 8

9. After removing the casualty from a nerve agent's vapor exposure area, what should be the next step?

Page 10

10. Diagnosis of nerve agent exposure is based on _____.

Page 10

11. Nerve agent antidotes include which of the following?

Page 10

12. Which antidote will help dry secretions (bronchorrhea) and counter the effects of the bronchoconstriction caused by the nerve agent?

Page 10

13. _____hold historical significance as the forerunners of modern chemical warfare and still hold relevance today as likely chemical culprits given their availability.

Page 13

14. T/F: There are no readily available diagnostic tests to confirm or quantify pulmonary agent toxicity.

Page 14

15. Chlorine exposures may lead to copious secretions and laryngospasm shortly following exposure, therefore providers should be prepared for _____and possibly _____.

Page 16

16. T/F: Sulfur mustard agents will cause chemical burns associated with blisters within a few hours of contact with the skin or mucous membranes.

Page 17

17. First responders should have _____ during initial treatment of mustard casualties.

Page 18

18. Patients with _____can present with dry mouth and tachycardia leading the provider to believe dehydration is present when the patient is euvolemic.

Page 23

Nursing Intervention in Prolonged Field Care (CPG ID: 70)

1. When performing nursing intervention during prolonged field care, personnel must flush saline locks with 10ml of normal saline at least every ___ hours.

Page 3

2. In order to prevent ischemic tissue injury and the formation of pressure sores on patients who cannot reposition themselves, nursing staff must reposition the patient and check padding every ____ hours.

Page 4

3. T/F: Burned and injured extremities should be slightly elevated and rigidly straight to optimize venous return and maintain adequate peripheral pulses.

Page 5

4. T/F: Lip moisturizer is included in the “minimum” recommendation for oral care during prolonged field care.

Page 5

5. Patients who are conscious and able should brush their teeth a minimum of every ___ hours. For unconscious patients, perform oral care at least every ___ hours.

Page 5

6. During prolonged field care, perform Foley care _____ or as needed for excessive drainage.

Page 6

7. T/F: When washing a patient during prolonged field care, you should always wash the face first.

Page 6

8. T/F: If baby wipes or skin wipes are used to wash the skin, the wipes should be thoroughly rinsed with water first, because most contain alcohol and residues that can irritate the skin.

Page 7

9. During prolonged field care, replace infusing bag of fluids and tubing with new equipment _____ if possible.

Page 7

10. If available, check blood glucose level (BGL) every 8 hours or more frequently as dictated by patient status while performing prolonged field care. A low BGL must be treated immediately with oral sugar or juice or IV glucose. What is considered a low BGL?

Page 7

11. If available, check blood glucose level (BGL) every 8 hours or more frequently as dictated by patient status while performing prolonged field care. A high BGL is less dangerous than low glucose, but may be treated if the capability is available. What is considered a high BGL?

Page 7

12. Which nursing intervention minimizes the risk for a patient to develop deep vein thrombosis (DVT) during prolonged field care?

Page 7

13. How often should nursing staff perform deep vein thrombosis prevention for unconscious patients during prolonged field care?

Page 8

14. T/F: It is of the utmost importance for the nursing staff to perform range of motion exercise at least every eight hours on all movable joints during prolonged field care, regardless of any injuries the patient may have.

Page 8

Documentation in Prolonged Field Care (CPG ID: 72)

1. T/F: Prolonged Field Care is intended for use prior to Tactical Combat Casualty Care guidelines when evacuation to higher level of care is not immediately possible.

Page 2

2. Completion of the prolonged field care AAR will contribute greatly to performance improvement to develop training, tools, and techniques for improving the care of casualties in austere environments. AAR stands for_____.

Page 2

3. What is the minimum recommendation for documentation during prolonged field care (PFC)?

Page 3

4. What is the most useful tool to recognize important clinical changes in complex casualties such as decompensation, response to resuscitation, development of complications, effectiveness of medications, etc.?

Page 3

5. When prehospital care transitions to prolonged field care, documentation should transition from the _____ to the _____.

Page 3

6. The prolonged field care flowsheet includes what information?

Page 4

7. Tactical combat casualty care (TCCC) or prolonged field care AARs, along with any medical documentation not completed before patient handoff, should be completed within ___ hours of patient handoff and summited to the Joint Trauma System (JTS) .

Page 4

8. T/F: Using the telemedicine report incorporated in the prolonged field care flowsheet is the best option to facilitate communication between prehospital providers and telemedicine consultants.

Page 4

9. T/F: The Prolonged Field Care (PFC) provider's job is not done until the receiving team understands the patient's condition and can begin to manage the patient appropriately.

Page 5

10. T/F: Hard copy documentation is the standard in hospitals and advanced field medical facilities.

Page 5

Global Snake Envenomation Management (CPG ID:81)

1. What are the major snakebite syndromes?

Page 4

2. What are the major signs and symptoms of a neurotoxic snakebite?

Page 4

3. What are the major signs and symptoms of a hemotoxic snakebite?

Page 4

4. What are the major signs and symptoms of a cytotoxic snakebite?

Page 4

5. T/F: When treating a snake bite patient, identifying the snake species will not change your patient care.

Page 5

6. T/F: Snake bite victims should be aggressively treated with antivenom regardless of if they have developed signs or symptoms.

Page 5

7. What is the preferred route for snake antivenom administration?

Page 6

8. T/F: Snake antivenom dosage is not weight-based and there is no difference in dosing between adults and children.

Page 6

9. T/F: Overdosing snake antivenom is not a concern during the active treatment phase, and the worst-case scenario is an allergic reaction.

Page 6

10. T/F: The evacuation of a patient with snakebite envenomation takes precedence over the administration of the appropriate antivenom.

Page 9

11. Observe and monitor the patient closely at the bedside for a minimum of _____ after each dose of antivenom has been given.

Page 13

12. T/F: Compartment syndrome is common in snakebites. Patients should receive a fasciotomy in conjunction with antivenom in most cases.

Page 14

13. T/F: Routine administration of antibiotics should not be given to patients with snakebites unless signs and symptoms of an infection are present. Direct infections are rare from most snakebites when prompt, appropriate treatment is given.

Page 14

14. Continuous clinical monitoring for the effectiveness of snake antivenom includes:

Page 14

15. Snakebite patients should be held for at least 24 hours after resolution of all signs and symptoms, and the following steps should be completed prior to discharge:

Page 15

16. What is the only prophylactic treatment that has been shown to effectively reduce the incidence of early adverse reactions in snakebite patients?

Page 17

17. T/F: Serum sickness associated with antivenom treatment may be uncomfortable but is not dangerous.

Page 18

18. What interventions are not appropriate when treating a snakebite?

Page 19

19. WHO category ____ venomous snakes are defined as “highly venomous snakes which are common or widespread and cause numerous snakebites, resulting in high levels of morbidity, disability or mortality.”

Page 21

20. WHO category ____ venomous snakes are defined as “highly venomous snakes capable of causing morbidity, disability or death, for which exact epidemiological or clinical data may be lacking; and/or which are less frequently implicated (due to their activity cycles, behavior, habitat preferences or occurrence in areas remote to large human populations).”

Page 21

Prehospital Blood Transfusion (CPG ID:82)

1. What are criteria used to predict the need for a massive transfusion using the assessment of blood consumption score?

Page 5

2. T/F: Blood product usage can be optimized when hemorrhage control is undertaken simultaneously.

Page 5

3. T/F: Rapid transfusion of blood can cause sheering of RBCs and should be avoided if possible.

Page 6

4. T/F: In low titer group O whole blood, the titer of Anti-A and Anti-B antibodies is low enough to represent minimal risk of clinical consequences, and may be considered a universal donor.

Page 6

5. Blood products should be transfused in a plasma:platelet:RBC ratio of _____.

Page 6

6. If available, type _____ RBCs should be used preferentially for females of childbearing years.

Page 6

7. T/F: When administering blood products, potential future pregnancy complications takes precedence over resuscitation and prevention of exsanguination in female patients.

Page 6

8. “Never frozen” liquid plasma has a shelf life of ____ days.

Page 6

9. Thawed plasma has a shelf life of _____.

Page 6

10. Ensure that all blood products issues have a _____ attached and activated for temperature monitoring.

Page 6

11. Before loading blood products for transportation, ensure that the blood product containers are _____ and _____.

Page 6

12. Thawed plasma needs to be refrigerated with a temperature between _____ prior to attaching a Safe-T-VUE.

Page 6

13. Blood products carried outside of a medical treatment facility (MTF) and/or laboratory will be contained in an approved storage container for a maximum of _____ hours.

Page 6

14. What is the first step in treating a prehospital transfusion reaction?

Page 7

15. When should the administration of one gram of calcium (30 ml of 10% calcium gluconate or 10 ml of 10% calcium chloride) IV/IO be given in patients receiving blood products?

Page 7

Global Spider and Scorpion Envenomation Management (CPG ID: 84)

1. T/F: Anaphylaxis from an arthropod envenomation is not an indication for antivenom.

Page 3

2. A patient has a chief complaint of abdominal muscle spasm. You notice a pair of small red spots that appears to be a bite. The patient states he did feel a pinprick at that same site about an hour ago. The patient also states the pain started at that site, but is more concern with his abdominal pain. More than likely the patient is suffering from what?

Page 4

3. T/F: You have a patients with significant symptoms that meet indications for antivenom, but has a history of asthma. You can still give one 2.5 milliliter vial of antivenom dissolved in one 2.5 milliliter vial of sterile water intravenously.

Page 4

4. When patients do have significant symptoms meeting indications for antivenom you can administer_____.

Page 4

5. Loxosceles reclusa is a venomous spider more commonly known as what?

Page 4

6. Loxosceles venom is cytotoxic and consists of what two main constituents?

Page 5

7. You have a patient who was bitten by a brown recluse. What treatment should be done on this patient?

Page 5

8. T/F: Tarantula bites are not dangerous to humans.

Page 5

9. What is the best way to remove tarantula’s barbed hairs from the skin?

Page 6

10. Unlike other species of the spiders, funnel web spiders can bite tenaciously and may _____.

Page 6

11. Prehospital management for a funnel web spider's bite consists of what?

Page 6

12. Scorpion venoms are complex and can include:

Page 7

13. The majority of scorpion envenomations can be adequately managed with _____.

Page 8

14. For clinically significant envenomation, management is supportive and focused on the patient's symptoms. _____are the first line therapy for sympathomimetic toxicity.

Page 8

15. For severe reactions, immediately stop the antivenom infusion and treat using a _____.

Page 9