

**Northwest Community EMS System 2025 SOP Self-Assessment  
TRAUMA**

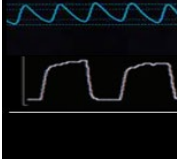
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EMS Educator signature:	Initial Score:_____ <input type="checkbox"/> Acceptable <input type="checkbox"/> Not acceptable <input type="checkbox"/> Incomplete <input type="checkbox"/> Incorrect answers Resubmission:_____ <input type="checkbox"/> Acceptable <input type="checkbox"/> Not acceptable

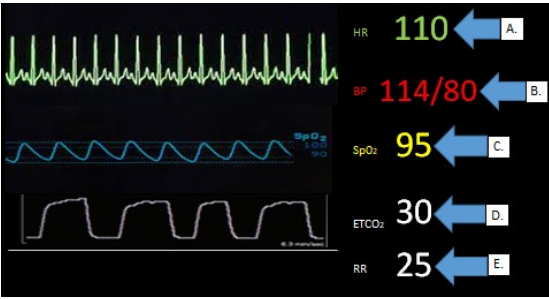
This document is designed to measure a candidate's knowledge of practice standards in the NWC EMSS. Only use the 2022 NWC EMSS SOPs, System Procedure Manual, and Policy Manual to answer these questions. May also use the 2022 SOP Changes and Rationale document if needed (System website: [www.nwcemss.org](http://www.nwcemss.org)).

## SHOCK

- Which of these may mask or prevent the classic signs/stages of hypovolemic shock?
  - Children have poor reserve capacity and rapidly progress to irreversible shock
  - Adults with existing HTN often won't deteriorate due to increased vascular tone
  - Elderly pts with comorbidities and cardiac meds may not present with tachycardia
  - Internal bleeding retains excess blood loss and patient may compensate for shock longer
- An adult is found ejected from the vehicle after an MVC. The pt is pale, cool and moist. Chest expansion is symmetric without paradoxical movement. There are no penetrating wounds; breath sounds are clear and equal bilaterally, heart sounds are clear, neck veins are flat, abdomen bruised, radial pulses are very fast and thready; respirations are rapid and labored. VS: BP 92/76 MAP (81); P 120; R 28; SpO<sub>2</sub> 91%; ET CO<sub>2</sub> 30 with square waveform; (+) shock index. What type of shock should be suspected?
  - Obstructive
  - Neurogenic
  - Cardiogenic
  - Hemorrhagic

**Refer to the image (right) to answer the next two questions:**

3. Which finding suggests poor perfusion to the lungs and a metabolic acidosis due to shock?
- A. Heart rate  
B. Blood pressure  
C. SpO<sub>2</sub>  
D. ETCO<sub>2</sub>  
E. RR
4. Do these vital signs reflect compensated or decompensated shock?
- A. Compensated  
B. Decompensated
5. Which of these can cause obstructive shock? Select the two options that are correct.
- A. LV hypertrophy  
B. Atherosclerosis  
C. Cardiac tamponade  
D. Tension pneumothorax  
E. Systemic histamine release
- 



**Initial Trauma Care**

6. Which immediate life threats must be found and resuscitated during the B (Breathing/Gas exchange) portion of the primary assessment in a trauma patient? Select the three options that are correct.
- ☐ Flail chest
  - ☐ Cardiac tamponade
  - ☐ Open pneumothorax
  - ☐ Tension pneumothorax
  - ☐ Blunt aortic or cardiac injury
7. Which of these should be detected and resuscitated during the C: Circulatory phase of the primary assessment?
- A. Facial trauma with teeth and blood obstructing the airway
  - B. Weak, thready carotid pulse, JVD, and muffled heart tones
  - C. SpO<sub>2</sub> of 84%; ETCo<sub>2</sub> 30, and unilaterally absent breath sounds
  - D. AMS, dilated pupils and inability to move all extremities to command
8. What is the *first* step in hemorrhage control for non-exsanguinating venous bleeding from a leg laceration?
- A. Apply a tourniquet
  - B. Pack the wound with hemostatic gauze
  - C. Direct pressure over single layer of sterile gauze
  - D. Place firm pressure over pressure points and elevate limb
9. Which of these is indicated **first** if an adult presents with a below the knee amputation from a blast injury leaving the stump mangled and bleeding?
- A. Apply direct pressure and hemostatic dressings to the wounds
  - B. Apply a tourniquet; twist windlass until all bleeding has ceased; do not release
  - C. Apply just enough compression to pressure points to maintain weak distal pulses
  - D. Apply a tourniquet and release it every 15 minutes to prolong ischemic time in the leg
10. An adult presents with a suspected fractured pelvis after being struck by a car. Skin is pale, cool, and diaphoretic. VS: BP 90/68; P 124; R 28; lungs are clear. Weight: 170 lbs. The pt is anxious and in severe pain. Which of these is indicated first?
- A. Fentanyl 300 mcg IN
  - B. Norepinephrine drip at 10 mcg/min
  - C. IV of NS run wide open up to 2 L
  - D. Wrap pelvis w/ pelvic binder or upside down KED
11. An unconscious adult presents following blunt trauma from a MVC with chest and abdominal injuries and a fractured femur. VS: BP 78/56; HR 120; RR 28; SpO<sub>2</sub> 90%; EtCO<sub>2</sub> 20. Which of these is indicated immediately?
- A. IV NS TKO due to need for permissive hypotension
  - B. Cold NS at 30 mL/kg (max 2 L) as rapidly as possible
  - C. 14-16 g IV with warm NS WO up to 1 L based on SBP (MAP)
  - D. Two large bore IVs warm NS on pressure infusers run wide open
12. What are the complications of exceeding BP targets and giving too much IV fluid to a patient with trauma? Select the two answers that are correct.
- ☐ "Pop a clot"; uncontrolled hemorrhage
  - ☐ Hyperthermia
  - ☐ Hypercoagulable state
  - ☐ Abdominal compartment syndrome
13. What is the maximum SBP target in mmHg when giving IVF challenges to a pt with penetrating torso trauma?
- A. 70 (MAP 40-50)
  - B. 80 (MAP 50-60)
  - C. 90 (MAP 60-65)
  - D. 110 (MAP>65 or higher)

14. Who must approve a scene response for an aeromedical helicopter in the NWC EMSS? (Policy A2 Use of Aeromedical Transport vehicles)
- Northwest Community Hospital only
  - Nearest System hospital with OLMC privileges
  - Medical Control hospital for the aeromedical service
15. An adult does not respond to any verbal stimuli. When deep pressure is applied to the earlobe, the pt briefly opens their eyes then closes them again, moans without words, and tries to shove the examiner's hand away. What is the GCS?

Eye opening		Verbal		Motor	
Spontaneously	4	Oriented/converses	5	Obeys commands	6
To speech	3	Confused	4	Localizes	5
To pressure	2	Words	3	Normal flexion	4
None	1	Sounds	2	Abnormal flexion	3
		None	1	Abnormal extension	2
				None	1

- 8
- 9
- 10
- 11

### **Trauma Triage | Transport Criteria**

16. A 50y/o unrestrained adult presents from a high speed single vehicle frontal impact MVC into a light pole. The patient opens their eyes to pressure, has confused speech, and does not obey commands. VS: BP 96/76; HR 120; R 28 with an intact airway. The patient has sustained head, chest, abdomen, and lower extremity trauma. The closest Level II trauma center is 6-minutes away and the closest level I is within 15 minutes. Which action is indicated?
- Transport to the Level I trauma center
  - Take the patient to the nearest Level II trauma center
  - Complete a more detailed assessment before making a decision about destination
  - Call an aeromedical service for a scene response due to the nature of the patient's injuries
17. A conscious & alert 22 y/o restrained driver presents following a high speed frontal impact crash with 20" of metal deformity. The airbag deployed and the pt has superficial abrasions to the hand and wrists and is c/o some neck stiffness but no midline pain. There is no respiratory distress or need for ventilatory support, lung sounds are clear bilaterally; BP 118/76, radial pulses 80, RR 16; SpO<sub>2</sub> 95%; and the pt moves all four extremities in response to command. Where should this patient be transported?
- Nearest Level I trauma center
  - Nearest trauma center; level I or II
  - Nearest hospital; pt does not require a trauma center
18. A conscious adult presents with partial and full thickness thermal burns over 60% of their body plus trauma after jumping from a 2<sup>nd</sup> floor window to escape the flames. The airway is intact with no apparent burns, carbonaceous sputum, or dyspnea; RR rapid; SpO<sub>2</sub> 96%. Pain 10/10; radial pulse is weak and rapid. Where should this patient be transported?
- Nearest Level I trauma center
  - Nearest trauma center; level I or II
  - Nearest hospital for initial stabilization
  - Nearest trauma center with burn capability

### **CARDIAC ARREST due to TRAUMA**

19. A normothermic unresponsive adult presents in asystole with chest and head injuries following blunt trauma. No VS were ever detectable. The ETA to the nearest hospital is 10 minutes. Which of these is indicated?
- Contact OLMC for pronouncement
  - Transport immediately with CPR and resuscitation per SOPs enroute
  - Perform bilateral needle pleural decompressions to see if pulses return
  - Administer 1 amp of epinephrine 1 mg/10 mL to see if cardiac activity can be stimulated

20. An adult sustained blunt chest trauma in an MVC and went into cardiac arrest soon after EMS arrival. After starting CPR, there is resistance to ventilating with a BVM. Breath sounds are absent on the right and present on the left. The nearest hospital can be reached within 10 minutes. What intervention is indicated?
- A. Resuscitate on scene for 30 minutes, then declare TOR if unsuccessful
  - B. Insert an advanced airway and provide deep positive pressure ventilations
  - C. Transport immediately with CPR in progress, abort all other care until hospital arrival
  - D. Needle pleural decompression to Rt chest; immediate transport w/ resuscitation enroute
21. One ambulance with two PMs arrives at a two vehicle crash. The driver of one vehicle is outside of the car walking around. In the 2<sup>nd</sup> vehicle, two front seat passengers are in cardiac arrest and one back-seat passenger is alive with labored ventilations. Which of these is indicated first?
- A. Begin one person CPR on each of the victims in cardiac arrest
  - B. Defer resuscitation for those in traumatic arrest until sufficient responders are present and rapidly triage the two victims who survived the crash

### **Conducted electrical weapon: Post-TASER Care**

22. If taser probes remain attached to the patient, what EMS action is indicated?
- A. DO NOT remove; cleanse puncture site and bandage
  - B. Gently push barbs through a skin fold and clip off before removing
  - C. Push down on surrounding skin and withdraw barb in the same angle as it penetrated
  - D. Ask police to remove them and place directly into a sharps container or keep as evidence

### **BURNS**

23. Which of these is accurate when using the Rule of 9s to estimate TBSA burned?
- A. Add 2% to an infant's abdomen and delete 2% from the head
  - B. Adult legs are proportionately smaller than an infant's so are assigned a lesser %
  - C. An infant's head is almost 2X as large proportionately so is assigned a greater %
  - D. An adult's trunk is proportionately larger than a child's so is assigned a greater %
24. An adult has burns of the chest, abdomen, perineum and the entire anterior surface of both legs. Using the Rule of 9s, what percentage of TBSA has been burned?
- A. 55%
  - B. 37%
  - C. 28%
  - D. 19%
25. How is the Rule of 9s adjusted for extremely obese individuals?
- A. Trunk may be up to 50% of the TBSA
  - B. Legs get a smaller percentage of the TBSA
  - C. Head and arms get a larger percentage than normal
26. What is the TBSA that has been burned in the illustration (right)? \_\_\_\_\_
27. What burn thickness should be suspected if the injured area is dry, hairs slough away and there is no capillary refill after blanching?
- A. Superficial
  - B. Partial thickness
  - C. Full thickness
28. What is the thickness of this burn? The burn is moist with blisters, red with good capillary refill and the patient is in severe pain. (See photo)
- A. Superficial
  - B. Partial thickness
  - C. Full thickness



29. Which of these is indicated to treat an acute partial thickness thermal burn of < 10% TBSA?
- Cool with water, NS, or Hydrogel burn dressing for 10-20 minutes
  - Cover with an ice pack for 1 minute to rapidly cool
  - Apply topical Neosporin ointment to promote healing
  - Aspirate all blisters and debride loose skin to reduce the chance of infection
30. What are the indications for IV/IO vascular access based on TBSA burned?
- | TBSA: Adults | Children |
|--------------|----------|
|              |          |
31. How much IV fluid should be given to each of these within the first hour following a moderate to severe burn if the patient is NOT in shock?
- | ≤5 yrs: | 6-13 yrs: | ≥14 yrs: |
|---------|-----------|----------|
|         |           |          |
32. An adult weighing 70 kg has partial thickness burns totaling 50% TBSA and is in burn shock. How much IV fluid **in liters** is needed during the first 8 hours? (Formula: 2 mL x TBSA x weight in kg; ½ in first 8 hours)
- 2
  - 3.5
  - 7
  - 14
33. An adult presents after exposure to household AC current. They deny loss of consciousness, being thrown from the contact point, or associated trauma. There is a small entrance wound on the hand but no thermal burns or exit wounds. The patient is c/o paresthesias in the arm with the entry wound. Which of these is indicated?
- Full spine motion restriction
  - Cool the entry wound with NS
  - Monitor the ECG for dysrhythmias
  - Apply moist sterile dressings for comfort
34. Which of these is appropriate initial EMS treatment for most wet chemical burns?
- Absorb the chemical using a towel and apply an antidote
  - Clean with soap and water, cover with wet dressings and iced saline soaks
  - Neutralize with a solution of the opposite pH, cover with wet dressings and cold packs
  - Remove clothing & jewelry, flush with cleanest water or NS available unless contraindicated
35. An adult has had hydrofluoric acid splashed on his hands and is in extreme pain. What EMS intervention is indicated if it is available on scene?
- Magnesium soaked gauze applied to the burn
  - Calcium gluconate 2.5% gel massaged into burns
  - Calcium chloride injected into burn wound margins
  - Bicarbonate soaked dressings applied to the burn
36. A conscious and confused patient has been rescued from a fire. The pt was in a closed room with smoke for 15 minutes and now presents with severe ventilatory distress, hoarseness, productive cough of black tarry sputum, stridor and diffuse wheezes in all lung fields. VS: BP 150/84, P 92, R 40 and labored; SpO<sub>2</sub> 94%. Which of these is indicated *first*?
- Transport to the nearest hyperbaric chamber
  - Administer 15 L oxygen and prepare to intubate
  - Start an IV and administer 3 amps of sodium bicarbonate
  - Start an IV NS wide open and give sequential albuterol treatments
37. An adult has partial thickness burns to the face, neck, entire anterior chest and ventral surface of both arms following an explosion in an enclosed space. The pt is awake and speaking without difficulty, c/o extreme pain from the burns, and has a hearing deficit. Which of these is indicated?
- Apply moist dressings covered with cold packs to the burns
  - Carefully examine skin and debride away embedded foreign contaminants
  - Anticipate inhalation/blast injury, monitor for barotrauma, concussion & eye injury
  - Establish an IV of NS and position head down on the left side to treat air embolism

**CHEST TRAUMA**

38. What size needle should be used to perform a needle pleural decompression?
- |               |        |         |
|---------------|--------|---------|
| <b>Adult:</b> | Gauge: | Length: |
| <b>Child:</b> | Gauge: | Length: |
- 
39. What is the approved site to perform a needle pleural decompression in the NWC EMSS? (Procedure manual)
- 2<sup>nd</sup>-3<sup>rd</sup> intercostal space in the midclavicular line
  - 5<sup>th</sup>-6<sup>th</sup> intercostal space in the midaxillary line
40. A conscious and alert pedestrian was struck by an SUV on their left chest, pelvis and leg and is c/o dyspnea and severe pleuritic chest pain. Lung sounds are equal bilaterally and a left lateral rib segment (T4-T6) moves paradoxically to the rest of the chest. Pulse is rapid at the radials; respirations are rapid with adequate effort. RA SpO<sub>2</sub>: 85%. Which of these is indicated **first**?
- C-PAP at 5 -10 cm PEEP
  - Fentanyl IVP and IVF challenges
  - Splint ribs with a circumferential elastic wrap around the chest
  - Drug assisted intubation and positive pressure ventilations at 10 BPM
41. Which of these is NOT an option to convert an open to a closed pneumothorax under current standards of care?
- Defib pad
  - Gloved hand
  - Vaseline gauze taped on 3 sides
  - Vented/channeled commercial device
42. Which of these is indicated for an adult who presents with muffled heart tones, JVD, and a BP of 60/30 following a small penetrating chest wound just to the left of the sternum?
- Pericardiocentesis
  - Norepinephrine drip at 8 mcg/min
  - NS IV WO while enroute to achieve a SBP of 80
  - Withhold all IV fluids to prevent rapid exsanguination
43. A conscious & alert adult was kicked in the anterior chest by a horse and is c/o of severe midline precordial chest pain (9/10). Ventilations are unlabored at a normal rate; breath sounds are clear and equal bilaterally; heart sounds good S1 and S2. Radial and femoral pulses are equal, rapid and irregular; ECG ST w/ PVCs; SpO<sub>2</sub> 96%; jugular veins are flat. There is redness and bruising over the sternum with point tenderness to palpation but no crepitus. There is equal chest expansion and no paradoxical movements, no difficulty swallowing, or variation in BP between the arms. What injury should be suspected?
- Flail sternum
  - Avulsed aorta
  - Blunt cardiac injury
  - Cardiac tamponade

**EYE EMERGENCIES (See also procedure manual)**

44. An adult present with profuse tearing, severe eye pain, redness and spasm of the eye lid after a blow to the eye with no evidence of globe penetration. What intervention is indicated?
- 
45. Besides a topical anesthetic, which of these is indicated for a pt who splashed lye into their eyes?
- Instill a mild acid solution into the injured eye
  - Irrigate manually with NS on scene and continuously to the hospital
  - Irrigate the eye with 1 amp of sodium bicarbonate via a Morgan lens
  - Irrigate with 1 L NS run through a nasal cannula placed over the bridge of the nose, patch both eyes

46. A patient presents following a fight with a partially avulsed eyelid and an extremely painful eye. On inspection, a jelly-like substance is seen oozing out of the eye. The white of the eye is extremely red and swollen; there is blood in the anterior chamber (hyphema) and the pupil has a tear drop shape. Based on this presentation, what intervention is indicated?
- A. Wipe away the jelly-like substance and irrigate the eye to remove contaminants
  - B. Instill tetracaine so the eye can be more effectively examined
  - C. Lay flat and apply a pressure patch to the affected eye
  - D. Cover injured eye with a protective shield or paper cup

### **FACIAL TRAUMA**

47. How should EMS treat an epistaxis without any suspicion of CSF leak?
- A. Pinch over the bridge of the nose for 2 minutes
  - B. Squeeze nostrils just below the nasal bones 10-15 minutes
  - C. Insert Celox gauze into each nostril to tamponade the bleeding
  - D. Position the patient supine and place an ice bag over the back of the neck
48. What is the preferred method to transport an avulsed tooth in a patient with altered mental status?
- A. In milk or saline
  - B. In a dry sterile 4X4
  - C. In a cup of tap water
  - D. Between the patient's cheek and gums
49. Which of these is contraindicated if a patient presents with the inability to close their jaw, malocclusion, and a hematoma under the tongue?
- A. Chin lift
  - B. Suction pm; ondansetron standard dose
  - C. IV access; NS TKO; cold packs over injury site
  - D. Allow pt to assume position that allows for patent airway

### **HEAD TRAUMA**

50. An adult is unconscious (GCS 8) from acute traumatic brain injury. VS: BP 190/80; P 50; R 8 and irregular; SpO<sub>2</sub> 90%; EtCO<sub>2</sub> 55; Glucose 90; pupils midpoint and reactive, all extremities move to pain. Which of these is an appropriate intervention?
- A. Administer 10% dextrose and 0.4 mg naloxone IVP
  - B. Assist ventilations with 15 L O<sub>2</sub> /BVM at 10/BPM
  - C. Administer atropine to increase the heart rate
  - D. NTG 0.4 mg to reduce the BP
51. An adult sustained blunt trauma to the head and abdomen in an MVC. GCS: eyes open to pressure; verbal response is confused; motor response localizes pressure. Skin is pale, cool, and moist. Pupils are midpoint and reactive to light. VS: BP 100/76; P 110; ECG SR; R 20; lungs clear; SpO<sub>2</sub> 94%; ET CO<sub>2</sub> 31. Abdominal exam reveals generalized guarding and rigidity. Which of these is indicated?
- A. Norepinephrine drip to achieve SBP 130
  - B. IV NS run TKO as SBP already exceeds targets
  - C. Rapid transport with IV deferred to the trauma center for a central line
  - D. NS IVF boluses (200 mL increments up to 1 L); target SBP 110-120 (MAP 85-90)
52. When establishing patient reliability for a neuro exam, what factors must be **present**?
- 
- 
53. What factors must **NOT** be present?
- 
-

54. What 7 ongoing assessments should be noted regarding pupils and the ocular exam?
- 
- 
55. If a pt with a head injury is combative and nonresponsive to verbal efforts to calm them and will not remain still; what medication is indicated if the SBP  $\geq$  90 (MAP  $\geq$  65)?
- A. Midazolam
  - B. Etomidate
  - C. Naloxone
  - D. Fentanyl
56. If an unconscious adult with head trauma presents with oval pupils and hippus, what should a PM suspect?
- A. Brain death
  - B. Drug ingestion
  - C. Massive catecholamine release
  - D. Increased ICP & impending brain shift

**The next three questions refer to the following scenario**

57. A conscious but confused (GCS 14) adult with blunt head trauma presents with pupils that are equal and reactive to light. Ten minutes later, the Glasgow score drops to 11. The airway is patent. VS: BP 210/110; P 48; R 12 and irregular; SpO<sub>2</sub> 96%; capnography 45. Pupils are unequal (L>R); L is nonreactive. There is a motor deficit of the right arm. What has likely caused the change in presentation?
- A. Brain shift (herniation)
  - B. Severe cerebral hypoxia
  - C. A stroke caused by the injury
  - D. Compression of the optic nerve
58. Which of these is indicated?
- A. DAI with ketamine to sedate
  - B. Elevate head of stretcher 45°
  - C. Midazolam IVP to prevent seizures
  - D. Seek OLMC order to hyperventilate 17-20 BPM (ETCO<sub>2</sub> of 30-35)
59. Is atropine indicated for the bradycardia? ☐ YES ☐ NO
60. Which is an early sign of an anterior basilar skull fracture assessed when inspecting the face?
- A. Otorrhea
  - B. Battle sign
  - C. Telecanthus
  - D. Eye pulled to the ear with ptosis
61. What are at least four of the red flags that indicate a severe concussion and require transport to a hospital for further evaluation?
- 
- 
62. Why should the examiner on the scene ask the Maddocks questions?
- A. Assess for amnesia
  - B. Determine if a spinal cord injury is present
  - C. Check for a change in personality
  - D. Evaluate the individual for decisional capacity



63. When evaluating a patient for possible concussion, EMS should observe for and also ask if the following "observable signs" after the event prompting concern for possible concussion: (Head trauma SOP)


### **MUSCULO-SKELETAL Trauma**

64. Which of these is an appropriate consideration when managing a joint injury?
- Attempt to realign/straighten before splinting
  - Actively flex the affected joint to check for crepitus
  - Assess motor, sensory and vascular status before and after splinting
  - Do not splint, instruct patient to hold their extremity to prevent further damage
65. If a patient is c/o severe back pain from muscle spasms, what can be given to help reduce the spasms?
- 
66. An adult has severed fingertips from the 2<sup>nd</sup> and 3<sup>rd</sup> fingers of their hand with a table saw. The patient has a washcloth around the hand and the fingertips are still in the sawdust. What is the most appropriate intervention for the amputated parts?
- Float the fingertips in sterile water; place the container on ice
  - Irrigate the fingertips with saline; wrap in plastic and bring to the hospital
  - Transport the fingertips in an emesis basin; they are too contaminated for replantation
  - Wrap fingertips in sterile gauze moistened with NS, place in waterproof container surrounded by cold packs
67. Name the replantation center in Region 9 where patients with amputations above the wrist or ankle should be transported:
- 
68. A 45 y/o adult's legs, abdomen, and chest have been compressed in a trench cave in for over four hours. Which of these is indicated per SOP?
- IV NS moderate rate before release, ACE wrap to legs after release
  - Full spine motion restriction on a backboard after release and NS TKO
  - Baseline ECG & IV NS TKO before release and WO up to 1 L after release
  - Sequential IV NS 200 mL fluid challenges and norepinephrine drip after release
69. Which of these is indicated if the above patient develops peaked narrow T waves with shortened QT segments or flattened or absent P waves, prolonged PRI, and wide QRS evolving to a sine wave pattern?
- Glucagon 1 mg IVP/IN
  - Lidocaine 1 mg/kg IVP
  - Amiodarone 150 mL mixed with 7 mL NS slow IVP over 10 minutes
  - Sodium bicarbonate 50 mEq slow IVP over 5 min followed by 20 mL NS IV flush
70. Which of these reflect appropriate interventions for a limb with compartment syndrome? (Select the two correct answers)
- ☐ Position: Elevated
  - ☐ Position: Below the heart
  - ☐ Apply cold packs to cool the limb
  - ☐ Do not cool the limb

71. What intervention is indicated for a conscious adult who has been rescued from an entrapment in an upright position within a safety harness without any movement for a long period of time?
- A. Position sitting up with legs bent at hips and knees for at least 30 min
  - B. Place supine with legs extended in Trendelenburg's position for 15 min
  - C. Massage cramped muscles to release toxins and run IV NS WO up to 2 L
  - D. Encourage pt to walk slowly around ambulance to wash potassium out of muscles

### **SPINE TRAUMA**

72. For pts found ambulatory at the scene with no neuro deficit, what is the standard of care if spine motion restriction is indicated during transport after manual stabilization of the head and neck in an eyes forward position, application of an appropriately sized cervical collar (unless contraindicated); and axial alignment of the head and torso?
- A. Standing backboard technique
  - B. Allow patient to sit up on cot with c-collar alone
  - C. Supine directly on cot w/ lateral head movement limited by tape or commercial device
  - D. Secured to a padded long spine board or scoop stretcher using a device to limit lateral head movement
73. For which patient is spine motion restriction (SMR) indicated?
- A. Reliable adult with penetrating neck trauma and no neuro deficits
  - B. Adult with an impaled object in the right midscapular line of the back at T5
  - C. Adult with an altered LOC likely caused by alcohol use disorder and no MOI
  - D. Adult with blunt trauma to the head and in extreme pain from an open femur fx
74. What is the preferred method to move a supine patient on the floor over to a stretcher during SMR?
- A. KED vest device
  - B. Use of a scoop stretcher
  - C. Have patient stand, walk and sit down on a long back board
  - D. Position a long backboard on the floor next to the patient and ask them to move onto it.
75. Which of these is indicated when providing spine motion restriction to an elderly patient with severe kyphosis who sustained injuries from a fall?
- A. Administer pain medication prior to securing them completely supine to a spine board
  - B. Apply a cervical collar and allow them to sit in high fowlers position during transport
  - C. Withhold spine motion restriction measures if decisional and pain level is <3
  - D. Carefully provide selective spine motion restriction and pad voids well

### **The next three questions refer to the following scenario**

An adult presents with paralysis of all four extremities following a 20 ft. fall. The pt's head is tilted to the left and cannot be moved back to midline without pain. The airway is patent and skin is warm, flushed and dry from the shoulders down. VS: BP 80/54; P 48; R 12; SpO<sub>2</sub> 97%; ET/CO<sub>2</sub> 42 with square waveform; GCS 15. IMC with vascular access is complete.

76. Which of these is indicated *first*?
- A. Intubate and provide ventilations
  - B. NS IVF challenges up to 1 L to achieve SB  $\geq$ 90 (MAP  $\geq$ 65)
  - C. Place on scoop stretcher without securing head and/or neck
  - D. Apply slight traction to head and neck, gently attempt to realign
77. Which drug is indicated first if the patient's SBP remains <90 and HR is < 60?
- A. Atropine 1 mg rapid IVP
  - B. Norepinephrine drip at 8 mcg/min
  - C. Epinephrine (1 mg/1 mL) 0.5 mg IM
  - D. Epinephrine (1 mg/10 mL) 1 mg IVP
78. If the pt remains hypotensive after a max dose of the above drug, which of these is indicated *next*?
- A. Atropine 1 mg rapid IVP
  - B. Norepinephrine drip at 8 mcg/min
  - C. Epinephrine (1 mg/10 mL) 1 mg IVP
  - D. Expedient transport for definitive intervention at the trauma center

79. If a patient is wearing a form-fitting helmet, the airway is accessible, and the patient experiences paresthesias or neck pain during removal attempts; should the helmet be left in place or removed prior to transport?
- A. Left in place                      B. Removed

## MULTIPLE PATIENT INCIDENTS

80. When does a small-scale multiple patient incident exist?

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81. What triage category should be assigned to a patient who is awake and can follow commands with a radial pulse, RR < 30, but cannot walk?

  - A. Red
  - B. Yellow
  - C. Green
  - D. Deceased

82. How many patients of any triage color category may be taken to each surrounding hospital from a multiple patient incident without seeking approval from the receiving hospital? \_\_\_\_\_

83. Who should on-scene personnel contact in a small-scale MCI to coordinate the remaining patient distribution when the # of ill or injured patients exceeds the transport of the initial patients to the nearest hospitals?

  - A. Closest System Resource or Associate Hospital
  - B. Resource hospital only
  - C. Closest hospital (could be in another EMS System)

84. Are EMS personnel required to contact the receiving hospital with an OLMC report when transporting patients from a small-scale multiple patient incident? A. Yes B. No

85. Is a complete electronic PCR required for each pt transported during a medium or large-scale incident? A. Yes B. No

86. When does a medium to large scale multiple patient incident exist?

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and/or

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and/or

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87. Which of these patients should be transported **first** based on START triage?

  - A. Can't walk; RR 20; radial pulse present
  - B. No respirations after opening the airway
  - C. Can walk; multiple lacerations with controlled bleeding
  - D. Can't walk; cannot follow commands; radial pulse absent; carotid pulse present

88. Who should EMS personnel contact to coordinate pt distribution in a medium-lg scale multiple patient incident?

  - A. Closest System Resource or Associate Hospital
  - B. Resource hospital only
  - C. Closest hospital (could be in another EMS System)

89. Is an OLMC report to the receiving hospital required when transporting pts from a med-lg scale MPI?

  - A. Yes
  - B. No

90. Which of these should be considered when determining the hospital destination for victims of an MCI?
- A. Trauma triage criteria: Level I or II
  - B. Pt acuity based on secondary triage
  - C. Family relationships – send relatives to same hospital
  - D. Hospital distance; do not use hospitals > 30 min away

### **CHEMICAL AGENTS**

91. How much atropine and 2 PAM should be given to an adult with suspected Sarin gas exposure that presents with coma, cyanosis, and seizures?

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### **CHEMPACK**

92. What info must be provided to the Resource Hospital to request Chempack asset deployment to the scene?

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93. How do CHECKPACK assets get to the scene? \_\_\_\_\_

### **ACTIVE ASSAILANTS**

94. Which of these is true if assigned to a Rescue Task Force (RTF) team during an evolving active shooter event? RTF teams...
- A. must be fully be equipped with body armor and handguns to provide self-protection.
  - B. deploy simultaneously with law enforcement as they enter the hot zone to neutralize the assailant.
  - C. are to stop bleeding; cover chest wounds, open airways manually and search for casualties until all are found in the warm zone.
  - D. are released to independently determine the safest path of travel for entry and to search for patients after law enforcement has swept the area.

### **BIOLOGIC AGENTS**

95. If a patient is coughing after exposure to a biological agent, what type of mask should be worn by rescuers?

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### **ABUSE/NEGLECT: DOMESTIC, SEXUAL, ELDER**

96. By State law, what is a paramedic mandated to give suspected adult victims of abuse?

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97. What is the minimum age for which EMS personnel must report possible elder abuse? \_\_\_\_\_

98. What hot line number should EMS personnel call if they suspect an elderly patient has been abused?

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### **TRAUMA IN PREGNANCY**

99. In what position should a pregnant patient who sustained trauma with a gestational age > 20 weeks be transported?

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100. EMS encounters a 28-week pregnant female who was just involved in a minor MVA. Vitals stable, no indication the baby is in distress, but mom has deformity to her wrist and is in pain. What is the preferred medication for pain management in this scenario:

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