

Northwest Community EMS System July 2017: Adult Trauma Management Credit Questions

Name:	Date submitted:
EMS Agency	Credit awarded (date):
EMSC/Educator reviewer:	Returned for revisions:
	Revisions recd.:

This packet should take 2 hours to complete – which earns you the equivalent of the 2 hour live CE class.
 Sources of information: July CE handout; SOPs;

Initial Trauma Mgt

1. **Identify 3 situations that present a safety risk for EMS that should be identified during the initial scene size up.**

- a.
- b.
- c.

2. **EMS is called for an adult pt involved in an altercation with another adult. Upon arrival to the scene, what factor must be relayed prior to entering the scene?**

3. **EMS is called for the patient who has a self-inflicted knife wound to the neck and is found gasping for air. Blood is spurting from the wound. What PPE is needed if the patient needs to be intubated?**

4. **EMS tends to a patient with a multiple GSW. Identify three things as part of the scene size to consider prior to initiating contact with the patient.**

- a.
- b.
- c.

Mechanism of Injury

5. **A restrained adult driver was involved in a lateral (T-bone) collision to the driver side, at high speed. There is 14 inches of intrusion into the occupant site. Which injuries would the pt. most likely sustain?**

- A. Whiplash, liver and pancreatic injury
- B. Knee, femur and posterior hip dislocation injuries
- C. Cervical spine injury, left lateral flail chest, and pelvic fracture
- D. Facial lacerations, laryngeal fracture, and blunt cardiac injury

6. Which of these are most often injured if an unrestrained driver takes the "down and under" pathway in a frontal MVC?

- A. Head, neck and ribs
- B. Knee, femur, and hip
- C. Neck, pelvis, and feet
- D. Chest, abdomen, and ankles

7. What injury is likely to be sustained when an adult patient lands feet first after a fall from 10 feet?

- A. Pelvic fractures of the symphysis pubis
- B. Patellar dislocations and small bowel rupture
- C. Renal artery avulsion and tarsal stress fractures
- D. Bilateral calcaneus (heel) and lumbar spine fractures

8. Which of these is most likely to occur as a result of severe deceleration forces to the midline chest?

- A. Crush and dissection of the descending abdominal aorta
- B. Shearing of the thoracic aorta at the ligamentum arteriosum
- C. Spasm of the aorta creating chest pain similar to that of an AMI
- D. Avulsion of the ascending aorta at the point of fixation with the pulmonic valve

9. Which condition should cause concern for advanced airway management for a patient involved in a house fire?

- A. Circumferential chest burn
- B. Singed nasal or facial hair
- C. Hearing loss or impairment
- D. Burns exceeding 20% BSA

10. An unconscious adult battery victim presents with mildly dilated pupils that are equal and reactive to light; flat neck veins, clear breath sounds bilaterally; abdominal rigidity with diminished bowel sounds. All limbs move when a pain stimulus is applied. Skin is cool, pale, and moist; VS: BP 92/76; P 120; R 28; SpO2 94%. What type of shock is the patient experiencing?

- A. Distributive
- B. Obstructive
- C. Neurogenic
- D. Hemorrhagic

Assessment and Intervention

11. Which of these is indicated for a patient with persistent venous bleeding from a deep leg laceration if direct pressure alone is ineffective but the limb is NOT exsanguinating?

- A. Tourniquet
- B. QuikClot gauze to all wound margins
- C. Cold pack and pressure dressing over the site
- D. Compress over pressure points and elevate the leg

12. What is the appropriate care to stop hemorrhage in a mangled limb?

13. An adult presents with back trauma and paralysis of all four extremities following a fall. His head is slightly cocked to the left and he cannot move it back to midline. Airway is patent. Skin is warm, flushed, and dry from the shoulders down. VS: BP 80/54; P 48; R 20; SpO₂ 97%; capnography 31 w/ square waveform; GCS 15; wt: 180 lbs. Which of these is indicated first?

- A. Intubate to take over ventilations
- B. Apply slight traction to neck to realign head
- C. NS IVF in 200 mL increments up to 1 L to maintain SBP \geq 90 (MAP \geq 65)
- D. Place on scoop stretcher w/o securing head and neck to prevent further injury

14. What compensatory mechanism occurs when epinephrine and norepinephrine are secreted in response to hypoperfusion in hypovolemic shock?

15. Why must all IV fluids be warmed when more than 200 mL/hour are given to patients in shock?

- A. Warm fluids promote diffusion of sodium across cell membranes
- B. Higher temperature fluids decrease the chance of popping a clot
- C. Warm fluids increase blood viscosity and promote hemostasis
- D. Warm fluids help prevent hypothermia and clotting disorders

16. An adult is found on the sidewalk with a small abrasion to his chin. The pt's eyes are open when you walk up; he answers questions appropriately but slurs the words and has a strong radial pulse. He asks for something to cover his chin and reaches for the gauze pad when opened. There is a strong odor of alcohol to the patient's breath. Does this pt meet the criteria for transport to a Level I trauma center?

- A. Yes
- B. No

17. Which of these occurs in the early pathophysiology of *all types* (etiologies) of shock?

- A. Loss of vascular fluid volume
- B. Dilated blood vessels from loss of vascular tone
- C. Cellular hypoxia due to a sustained perfusion deficit
- D. Cardiac pump dysfunction due to direct myocardial damage

18. Which of these is the earliest clinical sign that the body is *chemically* compensating for the metabolic acidosis caused by hypovolemic shock?

- A. Dilated pupils
- B. Capillary refill of > 2 seconds
- C. Tachycardia and cool extremities
- D. Increased ventilatory rate and depth

19. How can metabolic acidosis be measured in the pre-hospital setting? _____

20. What should be done first if the HR remains 44 and the BP is 76/52 after IV fluids fail to increase the BP in a patient with acute spine injury?

21. In accordance with spine SOP, which is the **PREFERRED** method of moving an elderly patient c/o neck pain that is found on the floor after they fell in their home?

23. What action should a paramedic take first if presented with an amputation of the arm at the mid humerus, leaving a stump that is mangled and bleeding?

- A. Apply direct pressure and hemostatic dressings
- B. Apply a tourniquet and twist windlass until all bleeding has ceased
- C. Rinse the amputated part thoroughly with saline and remove any debris
- D. Wrap amputated part in sterile saline-moistened gauze; place directly on ice

23. What 2 treatments are indicated for a patient in neurogenic shock to provide vasoconstriction to increase the BP to acceptable ranges?

24. EMS responds to a patient with a closed deformity of the left middle thigh and a diminished pedal pulse is noted. In accordance with SOP, what is the appropriate treatment for this injury?

25. Why are pelvic fractures associated with high mortality in the first hours after trauma?

- A. Bladder contusions
- B. Massive hemorrhage
- C. Fat embolus syndrome
- D. Intestinal perforation and peritonitis

26. What is indicated per SOP in addition to pain medication to reduce severe muscle spasm in patients who are hemodynamically stable with isolated MS trauma?

27. An awake and anxious adult male presents with blood at the urinary meatus, a swollen bruised scrotum with a butterfly hematoma of the perineum after a motorcycle crash. His skin is pale, cold, and diaphoretic. VS: BP 86/68; P 120; R 28; SpO₂ 94%; ETCO₂ 28; lungs are clear. The pt is in severe pain. The abdomen is rigid to palpation. Which of these is indicated?

- A. Midazolam 2 mg
- B. Norepinephrine 8 mcg/min IVPB
- C. Wrap pelvis with upside down KED device
- D. Two large bore IVs of NS wide open to assure 2L of NS are infused

28. What injury is suspected following blunt trauma and rupture of solid abdominal organs?

29. What injury should be suspected if a driver from a side impact collision complains of left upper quadrant pain that radiates to the left shoulder?

30. What does the following statement mean to you?

"The eye will never see and the hand will not do what the mind does not think of..."

Questions 31-40: Obtain a copy of the PCR's reviewed this month (either from your nurse coordinator or the EMS office) and utilizing the rubric below, please complete for any 2 of the 4 PCRs.

31-35. PCR # _____

What SOP(s) should be used to treat this pt?

Primary Assessment	Airway Breathing O2 sat Circulation Skin S/S shock? Disability bG if GCS <15/AMS	Patent Yes / No Adequate Yes / No >94% Yes / No Pulse Yes / No Color _____ Temp _____ Moisture _____ Bleeding Yes / No GCS <15/AMS Yes / No SMR Yes / No Yes / No	EtCO2 (35-45) Yes / No
Initial Treatment (ITC)	Hypoxia treated? Airway - adjunct needed? Breathing - O2/PPV needed? Bleeding controlled? Shock treated? (SBP targets: 80 penetr, 90 blunt, >110 TBI)	Yes / No / NA Yes / No / NA Yes / No / NA Yes / No / NA Yes / No / NA Yes / No / NA	
Scene Time & Transport	Scene time <10 min? Explained if >10 min? Appropriate destination?	Yes / No Yes / No Yes / No	
Secondary & Repeat Assessment	VS WNL Head (face, eyes/pupils, nose, mouth, ears, scalp) Neck (spine, trachea, jugular veins) Chest (inspect, palpate, auscultate) Abdomen/pelvis (inspect, palpate) Upper/Lower Extr (inspect, palp, PMS) Back (inspect & palpate)	Yes / No Yes / No Yes / No Yes / No Yes / No Yes / No Yes / No	At least 2 sets of VS for comparison? Yes / No
SOP Specific Treatment	Appropriate? Missing/Not done?	Yes / No Comments:	
Documentation	MOI described? Assessment? Tx?	Met standards	Opportunity for improvement

What aspect of assessment/treatment was **done best**?

What aspect of assessment/treatment had the **greatest opportunity for improvement**?

How could **documentation have been improved**?

36-40 PCR # _____

What SOP(s) should be used to treat this pt?

Primary Assessment	Airway Breathing O2 sat Circulation Skin S/S shock? Disability bG if GCS <15/AMS	Patent Yes / No Adequate Yes / No >94% Yes / No Pulse Yes / No Color _____ Temp _____ Moisture _____ Bleeding Yes / No GCS <15/AMS Yes / No SMR Yes / No Yes / No	EtCO2 (35-45) Yes / No
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Documentation	MOI described? Assessment? Tx?	Met standards	Opportunity for improvement

What aspect of assessment/treatment was **done best**?What aspect of assessment/treatment had the **greatest opportunity for improvement**?How could **documentation have been improved**?