

Northwest Community EMS System  
**CE Credit Questions – August 2022**  
 Trauma Updates: Trauma Triage, Head & Spinal Cord, Burns

Name:	Date submitted:
EMS agency or hospital:	Credit awarded -date:
EMSC/Educator reviewer:	Returned for revisions:
	Revisions received:

This packet earns you the equivalent of the 2 hours of continuing education / CE class.  
 Sources: Sept 2022 PPT for Credit Questions; 2022 SOPs; Changes & Rationales document.

1. Define hemodynamic instability, according to ITC SOP. (PPT slide 5; Trauma SOP)

2. How does the size of BP cuff used impact the reading obtained? (PPT Slide 3)

<b>Cuff too small:</b>
<b>Cuff too large:</b>

3. Prior SOP Level I criteria included “Anatomic criteria”, now referred to as “Injury patterns”. What significance do these injury patterns hold with regard to level of care that would be appropriate for a patient with such injuries? (PPT slide 11)

4. MOI is a strong predictor of pelvic injury. List the 3 most common MOIs associated with pelvic fx? (PPT slide 14)


5. List 4 assessment findings for suspected pelvic fracture. (PPT slide 15)


6. What are 4 goals of pelvic stabilization? (PPT slide 17)


7. Need for tourniquet or wound packing was added to trauma triage criteria injury patterns. Evidence regarding patients who required tourniquets/packing revealed a majority of these patients required or presented with which of the following? Circle all that apply. (Changes and rationales, p. 3; PPT slide 18)

- a. Shock
- b. Need for emergent hemorrhage control surgery
- c. Need for emergent blood transfusions

8. An adult is found at the foot of a stairwell. EMS notes odor of alcohol, and a nearly empty pint of bourbon is on the ground next to him. A hematoma is noted to left parietal area. The pt opens his eyes to voice, but cannot provide the date, where he is, or recall what happened in the hours prior to EMS being called. Movements are ataxic and speech is slurred. The patient is cooperative and follows commands. According to new trauma triage guidelines, assuming there are no life threats identified and the patient is hemodynamically stable, to what level of trauma center should this pt be transported? (Trauma Triage SOP; PPT slide 20)

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9. A young adult patient reports pain in their left chest and difficult breathing after being thrown from their bike into a fence post. EMS notes shallow, splinted breathing but no asymmetry of chest excursions. There are contusions over the Lt midaxillary area w/ + crepitus and pain upon palpation. BP 114/80, P 108, RR 22, SpO2 88-89%, ETCO2 30, square. According to new TT&T guidelines, to what level of trauma center should this pt be transported? (Trauma Triage SOP; PPT slide 23)

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10. List the minimum SBP in determining hypotension for each of the following age groups, for use in determining triage destination level of care. (Trauma Triage SOP; PPT slide 25-29)

Peds 0-9	
Adult 10-64	
Older adults > 65 yr	

11. What two numbers are assessed in determining shock index? (Trauma Triage SOP: PPT slide 30-32)

\_\_\_\_\_ and \_\_\_\_\_

12. Consider shock index for each of the following patients. Which presentations may signal a patient with potentially serious injuries? Circle all that apply. (Trauma Triage SOP; PPT Slides 30-32)

- a. 27F slipped off a 20 ft overhang while hiking: BP 98/70, HR 116, RR 22, SpO2 95%, ETCO2 32
- b. 44F, hit by a car while riding a bike. BP 112/70, HR 92, RR 22, SpO2 96%, ETCO2 34
- c. 77F, fell down 9 cement stairs. BP 90/66, HR 98, RR 22, SpO2 95%, ETCO2 29

13. In a patient with blunt trauma and suspected hypovolemic shock, what could be anticipated about their ETCO2 reading, as a reflection of adequacy of perfusion? (PPT slide 36)

14. What happens to brain perfusion when CO2 levels are...? (PPT slide 37)

...elevated above normal values?
...below normal?

15. Which of the following situations would warrant diverting to a closer Level II trauma center when transporting a patient to Level I? (Trauma triage SOP; PPT slide 38) Circle all that apply.

- a. Patient who is ventilator-dependent
- b. 2 unsuccessful IV attempts, patient in need of fluid resuscitation
- c. Inability to establish & maintain an airway by any method
- d. Patient in need of pain medication, who is hemodynamically unstable / cannot receive narcotics

16. To which level of trauma care should patients with the following traumatic mechanisms be taken, if the patient meets no criteria for Level I (“Red” criteria)? (Trauma Triage SOP; PPT slides 39-43)

2 y/o child in a rollover crash, found in their car seat, wedged between the 2 front seats.	
16 y/o thrown from ATV	
72 y/o patient who fell from the edge of the roof while cleaning the gutters	
27 y/o riding a bike, hit by a car and thrown 6 feet	

17. EMS personnel must pry open the door of an auto involved in a crash for the patient to exit the vehicle. Does this patient meet MOI criteria for “Closest trauma center” / “Yellow criteria”? (SOP; PPT slide 40)

- a. Yes
- b. No

18. What change has been made to the 2019 version of SOPs, “Motorcycle crash > 20 mph” to broaden types of objects from which a person could be separated, and to include a broad age range of patients? (Trauma Triage SOP; PPT slide 42)

19. What change was made to the 2019 SOP Special patient populations elderly caveat, “Low impact MOI/ground level fall may result in severe injury” (now found in new SOP under EMS Judgment)? (Trauma Triage SOP; PPT slide 44)

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20. Spine trauma SOP ITC includes monitoring and frequent re-assessing for what 4 respiratory function indicators? (Spine trauma SOP: PPT slide 49)


21. EMS suspects spine injury in a patient with cervical spine pain present by subjective complaint and upon palpation, and suspected anatomic abnormality on palpation. Respirations are noted to be shallow and the patient speaks only a few words in a breathy voice. SpO2 is 94-95%, ETCO2 is 44, RR 16. Lungs are clear but breath sounds are diminished. No indications of chest trauma are found. Before progressing to an advanced airway, what mode of oxygen delivery and support would likely be helpful for this patient? (Spine trauma SOP; PPT slide 50)

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22. Select adults and children who remain seated in the vehicle after a crash may self-extricate (vs removal via KED) provided they meet what criteria? (PPT slide 56; Spine trauma SOP)


23. Symptoms of neurogenic shock are attributable mainly to what disruption? (PPT slide 62; Spine trauma SOP)

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24. Findings consistent with neurogenic shock include which of the following? Circle all that apply. (PPT slide 59; Spine trauma SOP)

- a. HR < 60
- b. Hyperventilation
- c. Low EtCO2 readings
- d. Hypotension (SBP < 90)
- e. Warm, dry skin above the injury

25. Number the following interventions for neurogenic shock, in order of administration, per SOP. (PPT slide 60; Spine trauma SOP)

	Atropine 1 mg rapid IVP
	Norepi drip initial dose 8 mcg/min (0.1 mcg / kg / min)
	NS 200 mL increments up to 1 L per; peds 20 mL/kg

26. What is the MAP and or SBP target goal for management of neurogenic shock? (Spine trauma SOP)

Adults	
Children	

27. When transporting a pediatric-aged patient who requires continuous or intensive monitoring and interventions, and they either exceed size limits for your agency’s peds transport device or a peds transport device is not available, how should EMS secure the patient to the cot? (PPT slide 66)

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28. List 3 details added to the neuro assessment besides pupil size, shape and equality. (Head trauma SOP; PPT slide 69)


29. Per Head trauma SOP, what interventions should EMS take to identify, avoid and manage the 3 “H bombs” in head trauma? (Head trauma SOP; PPT Slide 71)

H-Bomb	EMS interventions to identify, avoid and manage
<b>Hypoxia</b>	
<b>Hyperventilation</b>	
<b>Hypotension</b>	

30. 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; PPT Slide 73)


31. Which of the following are included in MADDOCKS questions for amnesia? Check all that apply. (Head trauma SOP; PPT slide 76)

<input type="checkbox"/>	What happened?
<input type="checkbox"/>	Have you had a previous concussion?
<input type="checkbox"/>	Have you vomited?
<input type="checkbox"/>	What venue are we at today?
<input type="checkbox"/>	Which half is it now?
<input type="checkbox"/>	Did you lose consciousness?
<input type="checkbox"/>	Who scored last?
<input type="checkbox"/>	What team did you play last game?
<input type="checkbox"/>	Are you having difficulty concentrating?
<input type="checkbox"/>	Did your team win the last game?

32. Respond to the statements below that reflect additions made to the ITC portion of the Burn trauma SOP. (Burn SOP; PPT Slide 77)

What assessment was added to Airway/breathing? \_\_\_\_\_

What guideline was added with regards to ETT size? \_\_\_\_\_

33. Indications for IV/IO access include total body surface area percentages. What severity of burn (superficial, partial, full) and what percentage TBSA for the following patients would indicate need for venous access? (Burn SOP; PPT Slide 79)

**Adult:** \_\_\_\_\_

**Peds:** \_\_\_\_\_

34. What 2 physiologic events take place during the first 48 hrs of burn shock? (PPT slide 79; Changes and Rationales document-Burns section)


35. What severity and TBSA of burn should be cooled by EMS? (Burn SOP)

Partial thickness burns \_\_\_\_\_ Full thickness \_\_\_\_\_

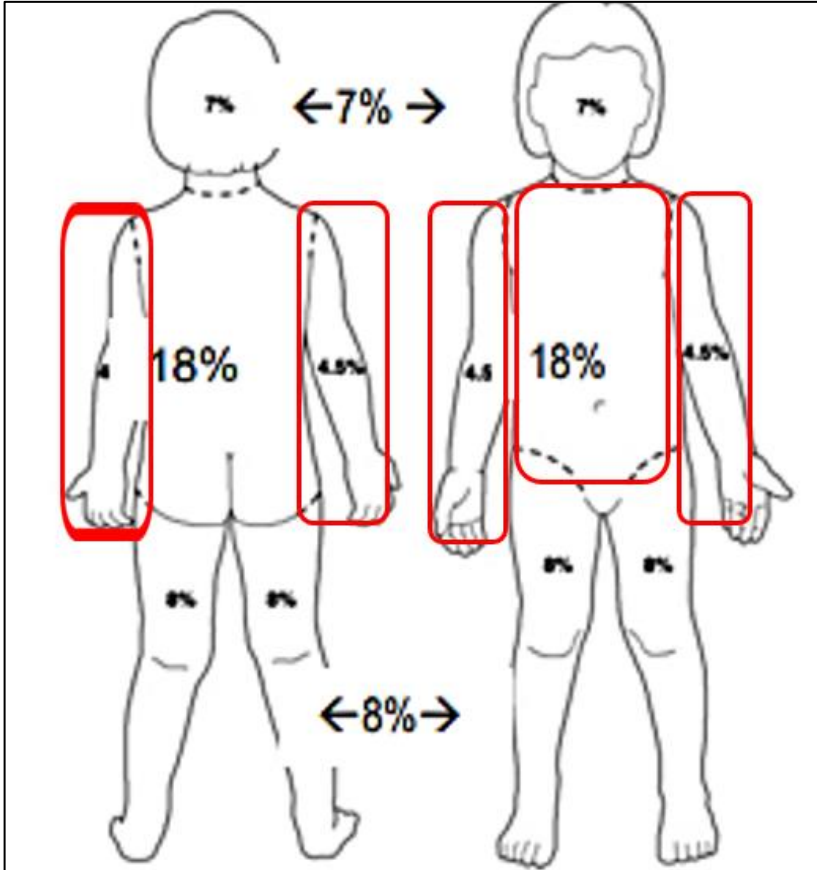
36. With regards to thermal burns only: what new option does EMS have for cooling of burns, other than irrigation with water or NS? (Burn SOP)

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37. For what period of time can appropriate burns now be cooled, before the cooling agent must be removed to avoid hypothermia? (Changes and Rationale document-Burn section; Burn SOP)

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38. Calculate the TBSA burned on the following patient:



_____ %
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39. How does a hydrogel dressing work? (PPT slide 83)

40. List changes to the following types of Burn Center Criteria: (Burn SOP)

Sub-classification of partial thickness burns: \_\_\_\_\_

Specific % for full thickness burn: \_\_\_\_\_

Children and older adults with what needs: \_\_\_\_\_

Addition of what source of burn: \_\_\_\_\_

Addition of an extreme environmental exposure type of burn: \_\_\_\_\_



