Northwest Community EMS System
January 2024 CE: Infection | Sepsis | Abdominal Emergencies
Credit Questions

Name (Print):		EMS Agency:		
EMS Educator:				
Date submitted	Score:	☐ Acceptable ☐ Not acceptable	☐ Incomplete ☐ Incorrect answers	Date returned w/ feedback
Resubmission received:	Score:	☐ Acceptable ☐ Not acceptable	☐ Incomplete ☐ Incorrect answers	Date returned w/ feedback:
# CE Hours awarded:		Date		

This packet should take 2 hours to complete – which earns the equivalent of the 2-hour live CE class.

Sources of information/answers

January CE PowerPoint PDF, PBPI 2023 Sepsis Screen, and NWCEMSS SOPs

1. List 4 injury patterns that meet Level 1 trauma center criteria.

   _____

   _____

   _____

   _____

2. Which of the following are NOT criteria to be transported to a Level 1 trauma center?
   a. Penetrating injury to proximal extremities
   b. Active bleeding requiring a tourniquet or wound packing or continuous pressure
   c. Suspected pelvic fracture
   d. Blunt force trauma to proximal extremities while hemodynamically stable
3. What are the top 5 EKG rhythms that are most misinterpreted in our system?
   1._____
   2. _____
   3. _____
   4. _____
   5. _____
4. For a sepsis patient, every HOUR of delay in treatment, increases mortality by what percentage?

   _____
5. What percentage of EMS transports are septic patients?
   a. 3.3% b. 1.2%
   c. 9.4% d. 6.2%
6. List 4 patient populations that are more susceptible to infection.

   _____ _____

   _____ _____

7. List 7 signs and symptoms of infection.

_____ _____

_____ _____

_____ _____

_____

8. What is the definition of sepsis?

_____

9. During the SEPSIS: FIRST RESPONSE video, they utilize the acronym CHART to help provide a systematic approach to assessing a patient with potential sepsis. What does this acronym stand for?

https://www.youtube.com/watch?v=Upf8C7xSPdk

C _____

H _____

A _____

R _____

T _____

10-13. True or False, during Sepsis:

Inflammatory chemicals remain local and do not develop into a systemic response?	☐ True	☐ False
Widespread vasodilation contributes to hypotension?	☐ True	☐ False
Dysregulation in bleeding/clotting contributes to tissue and organ hypoxia?	☐ True	☐ False
Vascular permeability means fluid stays in the vessels, where it should be?	☐ True	☐ False

14. The end result in septic shock is that the widespread inflammation leads to cellular hypoxia, which leads to:

_____

15. Select which of the following are the 3 components of a qSOFA assessment?

a. RR ≥ 22
b. HR ≥ 110
c. Sp02 ≤ 95%
d. AMS (GCS < 15) or GCS 1 point below baseline
e. SBP ≤ 100
f. Glucose ≤ 70

16. During sepsis, the widespread inflammation stresses the body and the patient's metabolic demand increases and they become more acidotic. How does the body compensate for this elevated level of acidosis_____

What happens as a patient increases their respiratory rate? _____

What happens to capnography values as excess CO2 is blown off? _____

17. According to SOP, what is the first line treatment for a septic patient with SBP between 90-100?

a. Antibiotics
b. 200 ml boluses of NS to achieve SBP ≥ 100
c. ASA 324 mg
d. Norepinephrine 8 mcg/min

18. Why is it important to start a large bore IV in a large vein on a septic patient?

_____

19. In the case study presented, what assessment findings lead to the diagnosis of septic shock?

    _____

20. For the patient in septic shock, after 500 ml of fluid, if they still remain hypotensive, what medication is indicated?

    _____

21. The parent of a pediatric patient tells you that there is an outbreak of measles at their child's day care center. Describe required PPE for EMS **and** for the patient. (Slide 15)

    _____

22. Name the respiratory virus in which each of the following symptoms occurs more commonly. (Slide 16)

    Body aches: _____

    Wheezing: _____

    Fever _____

    Difficulty breathing _____ _____ _____

23. Read the scenario on slide 19. What resp illness do you suspect? Support your answer with findings that coincide with findings as described in the SOP on page 81.

    Illness_____

    Findings: _____

24. Consult slide 21. Explain why each of these three respiratory illnesses are treated, when severe, with nebulized Epi and not with albuterol/ipratropium.

    _____

25. Answer the following about the procedure to prepare Epi administration via nebulizer. (SOP p 81; Slide 23)

    Choice of Epinephrine solution concentration (mg in mL): _____

    Dose and volume to be drawn up: _____

26. What assessment should be used by EMS to assess for evidence / severity of volume loss in patients with upper or lower GI bleeding who are not currently hypotensive? (Slide 27, 41)

    _____

27. What intervention is indicated for patients with hypotension due to GI bleeding volume loss? (Slide 28, 30, 42)

    _____

28. What happens to hepatic tissue in patients with cirrhosis? (Slide 31)

    _____

29. What process occurs in hepatic tissue in patients as a result of hepatitis? (Slide 32)

    _____

30. What are the consequences of untreated of recurrent bouts of hepatitis? Select all that apply. (Slide 32)

    a. Gall stones b. Liver hypertrophy

    c. Fatty infiltrates d. Type 2 Diabetes

31. A patient who is acutely ill w/ hepatitis may complain of which of the following? Select all that apply. (Slide 34)

    a. Nausea and vomiting b. Loss of appetite

    c RUQ or Rt shoulder pain d. Tarry stools

32. Deposits of "fat" (in the form of triglycerides) results in what two changes to liver tissue? (Slide 36)

    _____ and _____

33. Which of the following are risk factors for NAFLD? Select all that apply. (Slide 35)
    a. Portal hypertension
    b. Obesity
    c. Type 2 diabetes
    d. Liver cancer
    e. Dyslipidemia
    f. Metabolic syndrome

34. What is the result of the resistance to flow created by portal HTN? (Slide 38)

    _____

35. Splenic rupture should be considered in the presence of which of the following? Select all that apply. (Slide 47)
    a. Ecchymosis noted around the umbilicus
    b. History + for mechanism of blunt trauma
    c. Physical signs of trauma
    d. Risk factors incl liver disease, anticoagulant use, infections, blood cancers

36. A patient presents with acute onset of upper abdominal pain radiating to their back and N&V. PMH includes heavy ETOH use, obesity, and was recently diagnosed with gall stones. You note tenderness to palpation in the epigastric area. What should EMS suspect? (Slides 49-50)

    _____

37. An adult patient with PMH of DM and obesity presents w/ RUQ and Rt shoulder pain, and nausea. The patient belches frequently but states it provides him no relief, and is not normal for him. Evaluation for ACS is negative for findings of ACS, but he is given ASA, is placed on ECG monitoring, and an IV TKO is established. Aside from ACS, what should EMS also consider as a possible impression? (Slides 54-55)

    _____

38. Indicate which type of aneurysm (1 = Abdominal aortic or 2 = thoracic aortic aneurysm) each of the following symptoms corresponds to. (Slides 59-61)

    _____ Abrupt sharp pain in chest or upper back
    _____ Throbbing, deep pain in back, sides, buttocks, groin, legs
    _____ Hoarse voice
    _____ Trouble breathing or swallowing
    _____ Urge to defecate
    _____ Trouble swallowing
    _____ Pulsatile abdominal mass

39. Which are risk factors for aortic aneurysm? Select all that apply. (Slide 62)
    a. Obesity
    b. Hypertension
    c. Atherosclerosis
    d. Chronic alcohol use
    e. Hyperlipidemia
    f. Increased abdominal girth

40. When should IV fluid challenges be given to patients with suspected aortic aneurysm? (Slide 62; SOP p 24)

    _____