Northwest Community EMS System

March 2017 CE: Sepsis, Periviable Birth, and Excited Delirium
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: March CE class handout, March CE slide deck, NWC EMSS 2016 SOPs, Norepi drip chart

Obj. 2. Discuss the etiology of distributive shock and sepsis.

1. **What are three cardiovascular effects of the immune response to infection in sepsis/septic shock?**

Obj. 3. Describe the body's physiologic response and compensatory mechanism to deficits in perfusion.

2. **What are the two reasons for low $ETCO_2$ readings in patients with sepsis**?

Obj. 6. Cite three criteria assessed when employing the Quick Sequential Organ Failure Assessment (qSOFA).

3. **What are the three components / assessments of the qSOFA criteria?**

Obj. 5. Synthesize assessment findings and patient history to form an initial impression of sepsis and septic shock

4. **List four findings from SAMPLE and or PMH that increase a patient's risk for developing sepsis**.

Obj. 8. Describe steps to assessing for infection source in determining an impression of sepsis/septic shock.

5. **List three assessment finding/complaints/S&S that may represent a potential infection source.**

Obj. 13. Support and defend the importance of EMS in identification, treatment and early notification of the septic patient.

6. **List 3 findings from recent studies endorsing the value of EMS in sepsis identification, management and outcomes.**

Obj. 11. Discuss norepinephrine dosing and delivery via peripheral vascular and IO routes.

7. **Describe the procedure (3 steps) for administration of Norepinephrine via the IO route, and what should be done if the infusion does not flow readily/is slow.**

Obj. 12. Identify accurate norepinephrine dosing based on the IV tubing drops per mL.

8. **How many drips per minute would you administer to deliver Norepinephrine 2 mL/min. when using the 15 gtt/mL tubing? How many if using the 10 gtt/mL tubing?**

Obj. 11. Discuss norepinephrine dosing and delivery via peripheral vascular and IO routes.

9. **What is the initial dose of Norepinephrine IV/IO for patients with septic shock? (mcg AND mL/min)?**

10. **How often must BP be checked while at this dose?**

11. **When SBP ≥ 90, what is the maintenance dose of Norepi (mcg AND mL/min)?**

12. **When administering the maintenance dose, how often must BP be checked?**

Obj. 5. Synthesize assessment findings and patient history to form an initial impression of sepsis and septic shock.
Obj. 10. Identify assessment findings and risk factors for sepsis/septic shock in a variety of patient scenarios.

Read Patient Profile #3 in the CE handout. Then answer questions 13-17.

13. **Is there a potential infection source? If so, what is it?**

14. **Does this patient have any infection risk factors? If so, what are they?**

15. **Were there any qSOFA findings in the assessment? If so, what are they?**

16. **According to SOP, if venous access is successful, how much IV fluid should this patient receive?**

17. **Should a sepsis alert be called for this patient? Why or why not?**

Read Patient Profile #5 in the CE handout. Then answer questions 18 – 22.

18. **Is there a potential infection source? If so, what is it?**

19. **Does this patient have any infection risk factors? If so, what are they?**

20. **Were there any qSOFA findings in the assessment? If so, what are they?**

21. **According to SOP, if venous access is established, how much IV fluid should this patient receive, and why?**

22. **Should a sepsis alert be called for this patient? Why or why not?**

Read Patient Profile #7 in the CE handout. Then answer questions 23 – 27.

23. **Is there a potential infection source? If so, what is it?**

24. **Does this patient have any infection risk factors? If so, what are they?**

25. **Were there any qSOFA findings in the assessment? If so, what are they?**

26. **According to SOP, if venous access is established, how much IV fluid should this patient receive?**

27. **What would be the indication for Norepinephrine for this patient?**

Obj. 14. Identify assessment findings in the preterm neonate that meet criteria for resuscitation measures according to additions to the Newborn Resuscitation SOP for Periviable Birth

28. **In addition to reasonable belief that a fetus is at least 20 weeks' gestation, the EMS should begin compressions on a fetus that exhibits any of the following three findings:**

29. **What level of care does the fetus require, and what three facilities can provide this specialty care?**

30. **A pregnant woman with a fundus well above the umbilicus is found in arrest. Where should resuscitation take place? Circle one.**

    1. Where the patient is found, unless it is unsafe
    2. En route

Obj. 16. Describe features commonly noted at the scene, presenting signs and symptoms, common assessment findings, and typical event progression in ExDS, including collapse and arrest.

31. **What two abnormal <u>physiologic etiologies / conditions</u> are known to occur in excited delirium, known to contribute to the patient's behaviors and ultimate demise?**

32. **List four findings that are commonly discovered or noted <u>at the scene</u> of an excited delirium event, about the patient's <u>behavior or presentation</u>.**

33. **List four findings that are commonly noted <u>upon contact</u> with the patient, about the patient's <u>behavior</u>.**

34. **If EMS were able to "assess" a patient experiencing excited delirium, what <u>physical assessment findings</u> would likely be found? List three.**

35. **Describe the "typical pattern of response" with regards to patient events/behavior in excited delirium, from its beginning to its "end".**

36. **Describe typical events/features surrounding the sudden collapse/death in an excited delirium even. List three.**

Obj. 17. Formulate a field impression of excited delirium based on assessment findings and observations of several video demonstrations of patients experiencing ExDS.

37. **Watch the video shown in class: <u>https://www.youtube.com/watch?v=GdzpoS8pTks.</u> What is your <u>field impression?</u> (What condition is this pt experiencing?)**

Obj. 19. Discuss management and monitoring guidelines for the patient experiencing ExDS,

38. **List four actions for EMS in the management and monitoring of the patient with excited delirium.**

Obj. 20. Calculate accurate weight-based mg and mL dosing for divided doses of ketamine administered via a combination of IN and IM routes.

Consult (1) the Drug and OD/Poisoning section of the *Changes, Rationales, and Citations* document from November 2016 CE, (2) the Drug OD/Poisoning section of the *Questions and Answers* document from January 2017 CE, (3) the Ketamine dosing chart on page 102 in the SOPs, and (4) the *Ketamine Dosing and Delivery* section on page 3 of the March 2017 CE handout to answer the following questions.

39. **Your patient weighs 175 lb. What is the *IN/IM* dose in mg and how many mL will this dose require?**

_____ mg

_____ mL

40. **Explain how this dose will be delivered per route and site. Specify mL per site, keeping in mind the mL/volume maximums for each site and route.**