

CE Credit Questions – January 2023

Special Patient Populations & Devices

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| 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 2 hours of continuing education / CE class.

Sources: Jan 2023 PPT for Credit Questions; SOPs; HeartMate3 resource; Policy B-1; MCS skill sheet

1. Your nearest system hospital w/ OB services (Hospital A) is on bypass, w/ transport time of 10 min. The next closest hospital (Hospital B) with OB services is an add'l 12 min by ground (total of 22 min.). The patient is G3 P2, 35 wks gestation. She has a known placenta previa, and began sudden, heavy, bright red bleeding ~ 15 min ago. Which hospital is the most appropriate destination for this patient? (PPT slides 3-6; Policy B-1 p 6-7)

2. Which hospital would you contact for OLMC? (Circle the correct answer) (PPT Slide 4; B-1 p 6/7)

Hospital A

Hospital B

When? (PPT slides 4: B-1 p 6/7)

3. In which two situations would a hospital NOT receive patients under any circumstances? (PPT slide 5; Policy B-1, p 6/7)

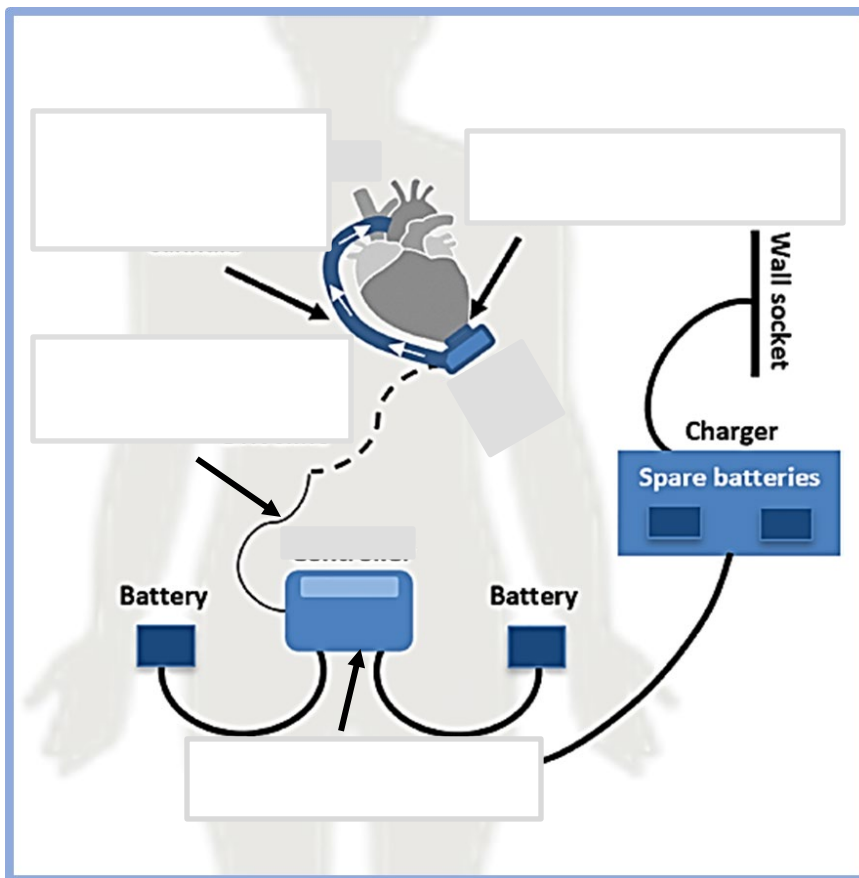
4. Define “unstable” as it applies to Hospital Bypass. (PPT slide 5; Policy B-1, p 6/7)

5. According to EMTALA: If an ambulance arrives on any portion of a hospital’s “campus” or “property”, the ED must conduct a medical screening examination for the patient and provide emergency stabilization to the best of their ability under the conditions. Per this rule, when is EMS considered “on the hospital campus”? (PPT slide 7; B-1 Policy p 8/7)

6. According to the VAD SOP, what is the first thing EMS should do upon arriving to the scene of a patient with symptoms/complaints potentially related to their VAD? (PPT slide 10; SOP p 23)

What does the SOP authorize EMS to do? (PPT slide 10; SOP p 23)

7. Which of the following assessments are used to evaluate perfusion in a patient w/ a VAD? Circle all that are correct. (PPT slide 17; SOP p 23)
- a. BP
 - b. Pulse
 - c. Cap refill
 - d. ECG rhythm
 - e. Mental status
 - f. Pulse ox reading
 - g. MAP via automated BP
 - h. Skin color, temp, and moisture
8. Label each of the 4 parts of a VAD (below). (PPT slide 15)



9. What does the controller do in relation to the following? (PPT slide 16)

Pump speed _____

Pump data and alarms _____

Battery life and function _____

Answer the following questions according to the HeartMate 3 information in the PPT or the HM3 reference document.

10. Should external compressions be done on a patient w/ a VAD? (PPT slide 20; Ref doc p 1)

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11. Since most patients with VAD do not have a palpable BP, can I use the reading from a non-invasive BP useful? (PPT slide 20, 27)

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12. What do I do if my patient is in VFib or Tach? (PPT slide 28). Circle all that apply.

- a. Defibrillate immediately
- b. Administer amiodarone IV per SOP
- c. Speed up the rate setting on the pump
- d. Begin manual chest compressions immediately
- e. Defibrillate or cardiovert only if the VAD coordinator orders it
- f. Assess perfusion indicators and communicate findings to the VAD coordinator

13. What are the 3 findings that together indicate a patient w/ a VAD is in cardiac arrest? (PPT slide 28)

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14. If the VAD coordinator orders EMS to defibrillate the patient, where should the therapy pads be placed? (PPT slides 29)

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15. If VAD is alarming upon EMS arrival, what 2 things should be checked first? (PPT slide 32)

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16. The VAD coordinator orders that the patient should be transported to the closest VAD center. Where is a listing of VAD centers closest to NWC EMSS found? (MCS Skill Performance Record)

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17. Implantable loop recorders (ILR) are placed for what purpose? (PPT slide 35)

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18. Give one symptom/condition that would qualify a patient to have an ILR. (PPT slide 35)

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19. Vagal nerve stimulators are FDA-approved for treating which 2 conditions? (PPT slide 36)

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20. List 3 side effects that a patient with a vagal nerve stimulator may present with. (PPT slide 38)

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21. A patient's trach tube is partially dislodged. Number the following steps to be taken in the order in which they should be performed. (SOP p 14; PPT slide 51)

- _____ Deflate the cuff
- _____ Reinflate the cuff
- _____ Secure the trach tube
- _____ Advance tube into stoma until flange is flat against neck

22. Number the following steps in the correct order to respond to a patient whose trach tube is completely dislodged. (PPT slide 51-53; SOP p 14)

- _____ Deflate the cuff
- _____ Secure the trach tube
- _____ Lubricate the cuff and tube
- _____ Insert obturator if double lumen tube
- _____ Remove obturator if double lumen tube
- _____ Insert inner cannula if double lumen tube
- _____ Remove inner cannula if double lumen tube
- _____ Advance tube into stoma until flange is flat against the neck

23. In an emergency, what action may EMS take when a patient's trach tube is completely dislodged? (PPT slides 54; SOP p 14)

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24. In reference to question 23, how far should it be inserted? (PPT slide 54; SOP p 14)

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25. A patient with a trach is experiencing resp distress. EMS attempts to ventilate via the ETT with an ambu bag. Resistance is noted. What should EMS suspect first and assess for? (PPT slide 54: SOP p 14)

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26. Explain steps to be taken if unable to pass a suction catheter in the following circumstances: (PPT slide 54; SOP p 14)

Cannot pass suction catheter in a double lumen trach tube:

Cannot pass suction catheter in a single lumen trach tube:

If unable to pass a suction catheter thru either a trach tube or an emergently placed ETT, how should EMS attempt to oxygenate and ventilate the patient?

27. A patient with a healed laryngectomy (no tube in place) is not breathing. How should EMS provide oxygen and ventilations to this patient? (PPT slide 56)

28. A ventilator-dependent patient is experiencing resp distress. The ETT is correctly and securely placed, a suction catheter passes easily, and there are no secretions suctioned. Breath sounds are symmetrical and clear, and there is no resistance to assisted ventilations w/ BVM. Which of the following actions should EMS take? (PPT slide 62)

- a. Perform emergent cricothyrotomy
- b. Call the ventilator manufacturer customer service number
- c. Administer wt-based Midazolam (sedation dose) + Fentanyl
- d. Disconnect pt from ventilator and manually ventilate the patient

29. A ventilator – dependent patient requires transport to the ED. The mother, who is the primary caregiver, presents EMS with the patient's transport ventilator, for use during transport. The mother is unable to go along to the hospital as there are children in the home who are too young to be left alone. What is the accepted method of supporting this patient's ventilatory status during transport? (PPT slide 63)

30. EMS urgently needs venous access. IO is contraindicated due to patient's history of osteogenesis imperfecta. The patient has a multi-lumen central line, but the caregiver has gone home for the day and family is not trained on use of the central line. What is required of EMS prior to accessing the patient's central line? (PPT slide 64; SOP p 4)

31. A patient is bleeding from the insertion site of a multilumen central line in the upper Rt chest. EMS finds the entire right side of the patient's shirt, front and back, soaked with blood, and there is blood flowing from under the Tegaderm dressing covering the insertion site. He is on a daily anticoagulant. Select all options of controlling bleeding that would be appropriate for this situation. (PPT slide 71; ITC SOP)

- a. Reinforce existing pressure dressings
- b. Apply direct pressure over mounded gauze dressings
- c. Apply a tourniquet to the Rt arm, as proximal to the torso as possible
- d. Apply a hemostat over several 2X2s and clamp the line as close to the insertion site as possible

32. An adult patient presents with SOB and chest pain shortly after lunchtime. He just returned home following an outpatient procedure for placement of a multi-lumen central line in his left upper chest this morning. He is scheduled to begin dialysis tomorrow. Onset was sudden, just minutes before calling 911. Besides ACS, what other condition/event may be the cause of his symptoms? (PPT slide 72)

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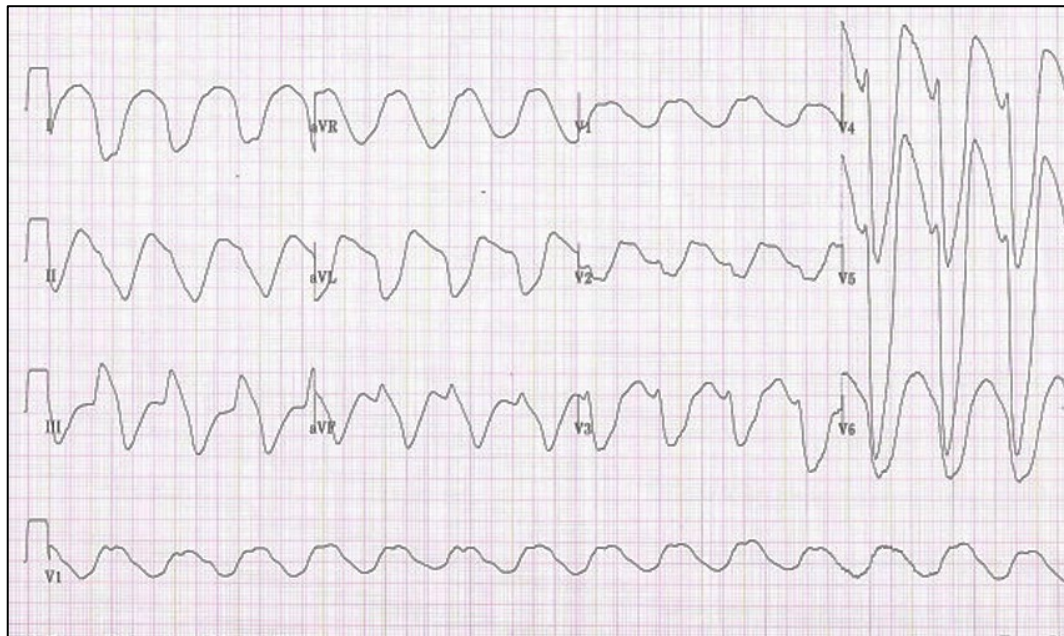
33. What actions should EMS take immediately? (PPT slide 73)

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34. Which of the following are essential functions of the kidneys? Select all that apply. (PPT slide 74)

- a. Regulate BP
- b. Eliminate waste products
- c. Maintain acid-base balance
- d. Maintain electrolyte balance
- e. Break down poisonous substances, such as alcohol and drugs

35. An older adult patient with end stage renal failure has called EMS for worsening nausea, severe weakness, and more recently (past 2 hrs) SOB and chest pain. The patient is hypotensive and lethargic. 12 Lead appears below. What condition do you suspect? (PPT slides 83-84; SOP p 24)



- a. Sepsis
 - b. Uremia
 - c. Heart failure
 - d. Hyperkalemia
36. What intervention is indicated immediately? (PPT slide 86; SOP p 24)

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| If venous access successful: |
| No venous access: |

37. What medication is contraindicated when treating patients with the above condition / presentation? (PPT slide 86; SOP p 24)

38. Extreme obesity places a patient at risk for apnea, airway obstruction, ventilatory distress, and desaturation. What action should the EMS provider take whenever possible, to optimally open the airway and facilitate ventilations? (PPT slide 89; SOP p 9)

39. What mode of O2 delivery should EMS consider, other than NRM, for an extremely obese patient? (SOP p 9)

40. Accurate NIBP measurement using a standard adult cuff can be especially challenging in obese patients. What other site might EMS choose to obtain a BP? Describe placement of cuff and the stethoscope. (PT slide 101)