

**Northwest Community EMS System
February 2024 CE: Cardiac Arrest Practical Scenarios
Credit Questions**

Name (Print):		EMS Agency:		
EMS Educator:				
Date submitted	Score:	<input type="checkbox"/> Acceptable <input type="checkbox"/> Not acceptable	<input type="checkbox"/> Incomplete <input type="checkbox"/> Incorrect answers	Date returned w/ feedback
Resubmission received:	Score:	<input type="checkbox"/> Acceptable <input type="checkbox"/> Not acceptable	<input type="checkbox"/> Incomplete <input type="checkbox"/> 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

February CE Participant slide deck handout, System Memos #427 & #428, Cardiac Arrest Skills Performance Record, Lucas Device Skills Performance Record & NWCEMSS SOPs.

Refer to Case Study of the Month for the following questions #1-5 (begins on slide #7)

1. Would nitroglycerin for pain be appropriate to administer to this patient. Explain your answer?

☐ Yes ☐ No

Explain:

2. Why did the crew treat with medication rather than cardioverting the patient?

3. What patient presentation would EMS consider pt. is unstable (critical section of SOP).

4. After treatment, repeat assessment, and vitals; should EMS transport the patient using Lights & Sirens?

☐ Yes ☐ No

5. What were the summarized concepts published 2023 AHA Guidelines for Neonatal Resuscitation that the NWCEMSS 2022 SOPS that meet compliance?

1. _____
2. _____
3. _____

6. Per the research article titled “*BVM Ventilation and Survival from OHCA*”, what were 2 key points mentioned?

1. _____
2. _____

7. Refer to the research article titled “*BVM Ventilation and Survival from OHCA*” to fill in the blanks for the following statement:

_____ is likely sufficient for the first _____ minutes following cardiac arrest thus supporting the _____ approach in _____ cardiac arrest while immediately _____ all others.

8. More recent studies and research literature suggest potential benefits to prehospital use of Ultrasound. Where is ultrasound currently referenced in our 2022 NWCEMSS SOPS and for what use?
-
9. In a summary of NWCEMSS Cardiac Arrests from August- December 2023 provided by Taylor McIntyre on behalf of the Cardiac Arrest Committee, what are the following statistics for:
ROSC achieved _____ %
ETI placed for advanced Airway _____ %
iGel placed as advanced Airway _____ %
10. List six of the tips and tricks from the cardiac arrest committee regarding cardiac arrest management and training?
1. _____
 2. _____
 3. _____
 4. _____
 5. _____
 6. _____

Complete the questions for each of the four cardiac arrest scenarios utilizing the Cardiac Arrest Procedure and CA SOP.

Scenario #1

EMS was called for s 66 y/o female found unresponsive on her couch in an apt complex. Maintenance on scene states they were informed of a potential gas leak and had advised all residents to vent their windows and exit the building. Meters confirm high CO levels in the apt complex.

11. What is the first priority of the crew?
-
12. Pt is not breathing and does not have a pulse. What is the first priority?
-
13. Explain the BLS airway management. (what should be applied to the pt. to optimize oxygenation?)
1. _____
 2. _____
 3. _____
 4. _____
 5. _____
 6. _____
14. Pre-oxygenation will occur for a minimum of ____ minutes prior to attempting an advanced airway.
15. What two instances will EMS provide O2 without ventilation (ApOx)?
1. _____
 2. _____
16. Explain how ventilations are provided to this patient. (what rate and who is squeezing the BVM).
-
-

17. Defibs pads are applied to the pt. and asystole noted on the monitor. What medication(s) should be given? How often?
-
18. The patient remains in asystole with an EtCO₂ of 8. What are the TOR criteria?
-
19. What are two additional tips and tricks to minimize timing off the chest for compressions during pauses? (i.e.: pulse check or applying Mechanical Compression Device. See slide 30)
1. _____
2. _____
20. If ROSC was achieved for this patient where would EMS transport? *Hint: Refer to CO Poisoning SOP*
-
21. What consideration must be made regarding SPO2 reading for this patient? *Hint: Refer to CO Poisoning SOP*
-

Scenario #2

EMS is called to a parking lot for a witnessed cardiac arrest by PD. Upon arrival PD performing CPR and 1 shock delivered by AED. PD explained pt. initially appeared very agitated, sweating, pacing, speaking irrational/incomprehensible words, and was attempting to hijack an occupied vehicle. Pt was tazed and collapsed to the ground. CPR initiated. When EMS plugs in the defib pads to the monitor v-fib is recognized.

22. Will this patient be ventilated or would ApOx apply? Give reason. _____
-
23. If a CPR device is being utilized, should the device be paused to deliver a shock? _____
24. If no compression device the goal is to keep pauses at or under _____ seconds.
25. A pulse should be checked and rhythm assessed on monitor immediately following defibrillation.
- ☐ True ☐ False
26. If this patient remains in persistent V-Fib after a few shocks were delivered, what should EMS consider doing for the next shock delivery attempt?
- Change defib pad placement if possible.
-
27. Is there ever a time the taser prongs would need to be removed for this patient? *Hint refer to Taser Procedure and impaled object SOP pg. 53*
-
28. What medications should this patient receive?
-
29. Once advanced airway is established how often would breaths be delivered to this patient? _____

30. ROSC is achieved for this patient. What are the initial tasks that need to be completed?
1. _____
 2. _____
 3. _____
 4. _____
31. What does the SpO₂ pleth waveform correspond with? _____
32. A well defined pleth suggests a _____ and _____ at the probe site.
33. EMS reports initial auscultated bp 76/50. What is the treatment to improve perfusion if lung sounds are clear?
- _____

Scenario #3

EMS is called to the daycare for a 3-month-old unresponsive in crib. Staff states child arrived early this am, was asleep in car seat, and mom transferred baby to crib then left. Staff was concerned mid-morning that patient hadn't woken up yet. They realized child was not breathing and initiated CPR.

When crew takes over CPR they note bruising to left upper chest. When asked about injury to staff they report pt. had bruising to lower back last week. Medical record denies meds, hx, or allergies. Weight: 15 lbs.

34. What is EMS's first action for this patient?
- _____
35. Should EMS use an NPA for this patient? Yes or No and explain. _____
- _____
- Should EMS use an OPA for this patient? Yes or NO and explain. _____
36. The patient is found to be in V-Fib. What are the initial joule settings (be specific as weight is provided above) and concurrent if necessary?
- _____
37. ROSC was achieved for this patient. If they did not respond well to 20mL/ kg IV fluid and required norepinephrine, what is the lowest weight EMS can freely hang norepi without an IV pump? _____
38. How often must a patient's blood pressure be auscultated while receiving norepinephrine? _____

Scenario #4

EMS was called to the home of a 72 yo male who family states he reported feeling ill the past few days and was unable to make it to his dialysis appointments. He last went 5 days prior. This am they came to take him to his doctor appointment & found him unresponsive in bed. EMD directed family to begin CPR (is in progress upon arrival). Medic crew arrives first as engine company is delayed to scene.

39. What are the top 3 priorities for the ambulance crew until further manpower arrives?
1. _____
 2. _____
 3. _____
40. Are there any irreversible causes of this cardiac arrest and if so, what treatment would EMS consider?
- _____