

**Northwest Community EMS System**  
**Continuing Education Class Credit Questions for May 2016**  
**Heat, Hives and stuff that burns!**

Name (PRINT):	Date submitted:
Affiliation:	Rating: [ ] Complete [ ] Incomplete

**Reminder:** You must schedule with your assigned hospital EMS Coordinator/educator or their designee to submit this packet for approval as completed.

**The answers are found in the May 2016 class handout, independent materials, NWC EMSS Policy Manual, and/or the SOPs.**

**Allergic Reactions**

1. When assessing a pt with an allergic reaction, what 4 body systems are most often affected? (PP slide)
   
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2. When comparing food allergies found in either adults or pediatric pts, it has been identified that either group can often be allergic to peanuts or tree nuts. Which other 4 items are children allergic to that are not often found with adults? (PP slide)
   
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Which items are adults allergic to that are not true of children?
   
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3. In addition to food allergies, what other things may be considered when determining an underlying cause of a reaction? (PP slide)
   
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4. Identify the underlying pathology of why a pt may develop hives with an allergic reaction. (PP slide)
   
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5. A conscious A & O adult presents w/ urticaria & pruritus on chest & arms following yard work. They also c/o itchy, watery eyes, sneezing, & a scratchy throat. There is no facial or airway edema or respiratory distress. BP 124/72; P 86; RR 16; SpO2 99%; BS = clear. Which of these is indicated first?
  - A. Epinephrine 1:1,000 IM
  - B. Epinephrine 1:10,000 IVP
  - C. Diphenhydramine IM or slow IVP
  - D. Albuterol & ipratropium via HHN
  
6. What is the classification, and dose for diphenhydramine in accordance with SOP for a pt with an allergic reaction?
   
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7. In accordance with the World Allergy Organization, which 3 things are included with their anaphylactic reaction guidelines to identify a reaction as such?
  1. \_\_\_\_\_
  2. \_\_\_\_\_
  3. \_\_\_\_\_

8. An adult presents with dyspnea, anxiety, facial swelling, watery eyes, and sneezing following exposure to a cat. VS: BP 110/70; P 100; R 24; RA SpO2 94%; lung sounds: diffuse wheezing. Which of these is indicated first? (PP)
- A. Diphenhydramine IM
  - B. Epinephrine 1:1,000 IM
  - C. Epinephrine 1:10,000 IVP
  - D. Albuterol & ipratropium via HHN
9. What causes patients with anaphylaxis to experience shock and a relative hypovolemia?
- A. Massive vasodilation
  - B. Pump failure and osmotic diuresis
  - C. Loss of sympathetic nervous system function
  - D. Endotoxin release that opens AV shunts around the capillaries
10. What is the desired action of epinephrine when given in the prescribed dose to a pt in anaphylactic shock?
- A. H1 & H2 blocker to reverse the immune response
  - B. Anticholinergic agent to dry secretions and vasoconstrict the patient
  - C. Alpha & beta stimulant to bronchodilate & vasoconstrict the pt
  - D. Stabilize cell membranes to reduce inflammation and decrease airway hyper-reactivity?

11. Anaphylaxis **always** presents with cutaneous signs and symptoms? (True or False)

TRUE

FALSE

12. What is the desired effect of giving epinephrine to a pt with:  
an allergic reaction?

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anaphylaxis?

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13. In accordance with SOP, what is the purpose for giving epi IM to a pt with anaphylaxis first prior to starting an IV?

14. Why is there an increased risk for a pt who refuses transport after an allergic reaction who has been treated with a self-administered epi pen?

15. What is different in the treatment of a cardiac arrest from an allergic reaction?

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**Heat Emergencies**

16. How is the severity of a heat emergency defined?

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17. It is 88° F outside with 70% humidity. An awake and alert 26 y/o mail carrier is complaining of severe pain in their thighs, legs, and abdomen with nausea. The patient stated they have been late in their rounds and last drank a cup of ice water about two hours ago. BP: 120/82; P 120; R 32; SpO2 99%; EtCO2 33; T 99° F. A paramedic should suspect heat:

- A. tetany.
- B. stroke.
- C. cramps.
- D. exhaustion.

18. Which patients would most likely be predisposed to a heat illness?

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19. It is 92° F outside. A 70 y/o was found supine under a tree. Pt is awake, answers questions accurately, but c/o extreme dizziness, weakness, thirst, nausea & has vomited X 2. Skin is flushed & diaphoretic. Denies CP or SOB & has a PMH of DM & HTN. Meds: propranolol. The pt became ill over past 30 minutes after golfing for the past 2 hours. VS: BP 84/60; P 118 & thready; RR 24; SpO2 97%; T 99

F. Gluco

- suspect heat:
- A. tetany.
  - B. stroke.
  - C. cramps.
  - D. exhaustion.

20. What 2 assessment findings differentiate this scenario above from other more severe heat emergencies?

- A. \_\_\_\_\_
- B. \_\_\_\_\_

21. What intervention should be initiated for the patient with heat exhaustion per SOP?

- A. Midazolam 2 mg IVP
- B. Massage arms & legs to remove lactic acid
- C. IV NS fluid challenge in consecutive 200 mL increments to maintain SBP  $\geq$  90
- D. Initiate rapid cooling: Cold packs to cheeks, palms and soles of feet

22. What is the compensatory response of the body in an attempt to cool the core when the internal body temp rises?

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23. Describe the common presentation of a patient with heat stroke.

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24. Of those symptoms listed, which 2 help in differentiating a pt with heat exhaustion from stroke?

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25. What treatment is outlined for the pt with heat stroke in accordance with SOP?

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**Burns**

26. What 5 energy sources can cause a burn to a patient?

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27. Who is at greatest risk for being injured by a burn and would have the greatest severity risk?

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28. Why is there an increased risk to the airway for inhalation burns in children?

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29. How would the depth of injury be classified for a patient who is burned?

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30. What area of the tissue is involved when a patient incurs a superficial burn?

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31. Give 3 assessment findings associated with a superficial burn.

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32. What area of the tissue is involved when a patient incurs a partial thickness burn?

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33. How can EMS identify and differentiate a partial thickness burn from a superficial burn?

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34. When encountering a pt with a full thickness burn, what is the priority of treatment?

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35. A conscious and confused patient has been rescued from a smoky fire. He presents with severe ventilatory distress, singed nasal hairs and eyebrows, hoarseness, productive cough of carbonaceous sputum, stridor and diffuse wheezes in all lung fields. VS: BP 150/84, P 92, R 40 and labored; SpO2 95%; EtCO2 20 with sharkfin waveform. What should a paramedic do first?
- A. Administer 15L oxygen and prepare for DAI
  - B. Start an IV and administer 3 amps of sodium bicarbonate
  - C. Give epinephrine 0.1 mg IVP; withhold O2 due to SpO2 reading
  - D. Start an IV NS wide open and give sequential albuterol treatments

36. Which of these should take FIRST priority for transport due to the urgency of their injury?
- A. 18% deep partial thickness leg burns
  - B. 2% partial thickness burns to both palms
  - C. Upper airway burn with suspected smoke inhalation
  - D. 9% deep partial thickness arm burn with a fractured radius and ulna

37. What is the IVF infusion rate for a pediatric patient who is:

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38. An awake & alert adult spilled hot coffee on his L hand & forearm (TBSA 3%) sustaining a deep partial thickness burn. The pt is c/o severe pain (10/10). VS: BP 160/90, P 96, R 16. Attempts at IV access are unsuccessful. Which of these is indicated to treat the pain?
- A. Midazolam IM
  - B. Fentanyl IN
  - C. Spray burn with benzocaine
  - D. Transport with arm covered with crushed

39. What is the purpose of using saran wrap as a part of wound care for a pt with a burn?

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40. Calculate the degree of burn.

Adult: one arm (circumferential) & front right side of chest. (PP slide 119)	
Infant's hand to wrist top only (slide 120)	
Child's entire face and left side of upper chest and shoulder (slide 121)	
Adult's L scapular area of back with burn circumferential on arm to elbow (slide 124)	
Infant's leg from crease in upper thigh at diaper area to ankle circumferential (slide 125)	