

# Northwest Community EMS System 2014 SOP Self-Assessment

Name (Print):	Evaluator signature:
EMS Agency	Date:
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## COMPLETE AND BRING WITH YOU on your 1<sup>st</sup> day of System Entry written testing

This document is designed to highlight important aspects of the NWC EMSS SOPs implemented June 1, 2014 and System procedures referenced in the SOPs and procedure manual. Entry applicants are encouraged to use the changes and rationale document that was released with the SOP as an additional reference for this self-assessment.

### INTRODUCTION; GENERAL PATIENT ASSESSMENT

- Which of these may be transported using lights and sirens without on-line medical control contact?
  - BLS patient with abdominal pain that might deteriorate
  - Stable adult with chest pain with ST elevation in Leads II, III, and aVF
  - Patient with a mild allergic reaction who has received diphenhydramine and an IV
  - Scheduled transfer of a stable nursing home patient who requires diagnostic testing
- Which of these must be done at the point of contact in a time-sensitive patient who is hemodynamically stable, has no seizure activity, glucose is normal and DAI is not indicated?
  - 12 L ECG in an adult c/o chest pain
  - IV access in pt with suspected stroke
  - IV access following penetrating chest trauma
  - 2<sup>nd</sup> dose of albuterol for a severe asthma attack
- List an indication for applying a pulse ox monitor:  
\_\_\_\_\_
- List an indication for applying a capnography monitor:  
Possible ventilatory/perfusion/metabolic compromise; check adequacy of CPR, ETT placement
- List six indications, based on chief complaint or PMI, for obtaining a 12-L ECG  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- What does the notation *time sensitive* mean in the SOPs?
  - Load and go with no scene interventions
  - Abort ALS care in favor of rapid transport
  - Minimize scene time as much as possible
  - Drive as quickly as possible to the hospital
- How must the 1<sup>st</sup> BP be obtained?
  - Manually
  - Mechanically using the automated cuff on the cardiac monitor
- At a minimum, how many sets of vital signs are required on all stable transported ALS pts with a patient contact time of 15 minutes or less?  
\_\_\_\_\_

**INITIAL MEDICAL CARE**

9. What is the target SpO<sub>2</sub> in patients with COPD?
- 88%
  - 92%
  - 94%
  - 96%
10. All of the following should receive O<sub>2</sub> only if there is evidence of hypoxia and should have the liter flow titrated to a dose that relieves hypoxemia without causing hyperoxia EXCEPT:
- Post-cardiac arrest
  - Neonatal resuscitation
  - Uncomplicated Acute MI
  - Submersion incident/near drowning
11. Which of these is a candidate for an intraosseous line?
- Elderly pt w/ fragile veins who fell and is c/o severe pain
  - Child whose only peripheral vascular site is an antecubital vein
  - Pt in extremis w/ circulatory collapse needing immediate administration of IV meds
  - Awake and responsive pt where two attempts at venous access have been unsuccessful
12. An IO line has been started on a patient with 95% TBSA partial and full thickness burns who is awake and in extreme pain. The patient weighs 200 pounds. What should be infused first through the IO line?
- NS 200 mL
  - Lidocaine 50 mg
  - Fentanyl 90 mcg
  - Sodium bicarbonate 50 mEq
13. A 70 y/o F with renal failure fell while walking into her dialysis center. She is alert, on the floor & c/o significant right hip pain (10/10). Rt. leg is shortened and externally rotated. IV is unsuccessful on the arm without the shunt. VS: BP 132/82; P 84; R 20; SpO<sub>2</sub> 98%; glucose 276; weight 120 lbs. PMH: Diabetes, renal failure, CVD. Meds: Insulin, lisinopril, Prevacid. *How much Fentanyl should she get?*
- 
- Is she a good candidate for repeat doses?       Yes       No
14. A 30 y/o female presents following a scald burn at work. She has 4.5% partial thickness burns to the left hand and forearm and is in severe pain. VS: BP 140/90; P 120; R 20. Weight 120 pounds. No PMH. What dose of fentanyl should she get first?
- 25 mcg
  - 50 mcg
  - 100 mcg
  - 150 mcg
15. A 40 y/o male is c/o severe lower back pain (10/10). The pt has a known herniated disc. Meds: None. VS: BP 122/71; P 88; R 20; ECG NSR; SpO<sub>2</sub> 98%; wt 250 lbs. The patient remains in severe pain after the first dose of fentanyl. What is max 2<sup>nd</sup> dose that he can receive by SOP without OLMC?
- 50 mcg
  - 100 mcg
  - 150 mcg
  - 200 mcg

16. A 40 y/o adult presents with a fractured humerus in extreme pain. No PMH. VS: BP 130/84; P 116; R 24; Wt 180 lbs. PMs have maxed out the amount of fentanyl they can give by SOP. What is the next single dose that can be ordered by OLMC?
- A. 40 mcg
  - B. 50 mcg
  - C. 100 mcg
  - D. 150 mcg
17. PMs have maxed the amount of fentanyl they can give by SOP to the above patient. What is the max total dose that he can receive by SOP + OLMC order?
- A. 100 mcg
  - B. 135 mcg
  - C. 150 mcg
  - D. 300 mcg
18. Which of these is an anticipated side effect of fentanyl?
- A. Pain at injection site
  - B. Respiratory depression
  - C. Tachycardia & palpitations
  - D. Transient blurred vision after infusion
19. What initial dose and route of ondansetron that can be given by EMT-Bs?
- A. 8 mg IM
  - B. 4 mg slow IVP
  - C. 8 mg per MAD device
  - D. 4 mg per oral dissolve tablet

What is the max total dose of ondansetron that can be given by paramedics? \_\_\_\_\_

How should IVP ondansetron be administered?

- A. Slow (over no less than 30 sec)
  - B. As rapidly as possible in a proximal vein
20. If a stable, conscious adult with decisional capacity expresses a desire to be transported to a hospital other than the one that is nearest by travel time, what must be done?
- 

### **EMERGENCY DRUG ALTERNATIVES**

21. Which of these is the desired action of ketamine?
- A. Dissociative anesthetic
  - B. Short-acting opiate narcotic
  - C. Benzodiazepine sedative hypnotic
  - D. Sedative hypnotic without analgesic activity
22. What action/side effect of ketamine makes it a particularly attractive sedating drug prior to DAI for a patient with a severe asthma attack?
- A. Hypotension is transient
  - B. It causes bronchodilation
  - C. It produces transient paralyses in addition to sedation
  - D. Pts remain fully awake and aware and can obey your commands during the procedure

23. Which of these is an anticipated side effect of ketamine?
- A. Emergence reaction
  - B. Bronchoconstriction
  - C. Respiratory depression
  - D. Transient bradycardia and hypotension
24. Which is the initial adult dose of ketamine IVP for sedation?
- A. 0.5 mg/kg slow IVP (over one minute)
  - B. 1 mg/kg rapid IVP
  - C. 2 mg/kg slow IVP (over one minute)
  - D. 4 mg/kg rapid IVP
25. Which is the pediatric dose of ketamine IM for sedation?
- A. 4 mg/kg
  - B. 2 mg/kg
  - C. 1 mg/kg
  - D. 0.5 mg/kg
26. Which of these is the IN dose of ketamine for pain?
- A. 4 mg/kg
  - B. 2 mg/kg
  - C. 1 mg/kg
  - D. 0.5 mg/kg
27. Which is the desired action of norepinephrine when given to patients in septic shock?
- A. Strong chronotropic agent to increase HR
  - B. Anticholinergic agent producing  $\uparrow$  HR & bronchodilation
  - C. Angiotensin receptor blocker prevents cardiac remodeling
  - D. Alpha receptor stimulant causing vasoconstriction & increased peripheral vascular resistance
28. How should norepinephrine be initially administered after adding 4 mg (4 mL) to 1,000 mL D5W or NS?
- A. 2-10 mcg/kg/min
  - B. 5 mg/min titrated up to 10 mg/kg/min
  - C. 10 mcg/kg/min titrated up to 20 mcg/kg/min
  - D. 8 mcg/min titrated in 2 mcg/min increments to 20 mcg/min
29. Which are anticipated side effects of norepinephrine that require careful monitoring during administration?
- A. Bradycardia and respiratory depression
  - B. Profound vasodilation and hypotension
  - C. HTN and decreased peripheral perfusion
  - D. Prolonged QT syndrome leading to torsades de pointes

### **RADIO REPORT/COMMUNICATIONS POLICY**

30. When are paramedics in the NWC EMSS to attempt on-line medical control contact?
- A. Before they transport
  - B. As soon as they make contact with a patient
  - C. As soon as practical under the circumstances
  - D. Before any ALS interventions may be performed
31. Which DOES NOT qualify for an abbreviated report?
- A. Multiple patient incidents (MCIs)
  - B. BLS patients with normal assessment findings
  - C. Critical patients where priorities rest with patient care and manpower is limited
  - D. Stable ALS patients with complicated histories and multiple prehospital interventions

32. Is it ever acceptable to call in a "trauma alert" on the MERCI (UHF) Radio for patients who require transport to a Level I or Level II trauma center?
- Yes       No

**WITHHOLDING OR WITHDRAWING OF RESUSCITATIVE EFFORTS (Also see Policy)**

33. A patient with decision-making capacity may not change his/her DNR Advance Directive (POLST) choices. Once completed, they are locked in for at least one year.
- A. True  
B. False
34. An unconscious adult is found pulseless and nonbreathing in bed. An IDPH Uniform DNR Advance Directive (POLST) form is on the bedside table. What instructions on the form should be reviewed to determine indicated care at this point?
- A. Section A: Has the patient marked DNR or attempt resuscitation?  
B. Section B: How aggressively does the patient want to be treated?  
C. Section C: Has the patient consented to artificial nutrition?
35. An adult presents with severe dyspnea and increased work of breathing. The pt has a history of left heart failure & denies a hx of asthma or COPD. VS: BP 180/96; P 100; R 28 and labored; SpO<sub>2</sub> 74%; and EtCO<sub>2</sub> 45 with a square waveform. Lung sounds: bilateral wheezes. The pt produces an IDPH DNR Advance Directive form with DNR marked in Box A and Limited Treatment marked in Box B. What care is indicated?
- A. Initiate NTG and CPAP per SOP and transport  
B. Insert an advanced airway, give albuterol via in-line nebulizer, and transport  
C. Provide comfort care only, have the patient sign a refusal form, do not transport
36. What action is needed if EMS is presented with an IDPH DNR Advance Directive (POLST) form that contains the patient's name and signature, physician's signature and date signed, and the DNR box checked in Section A?
- A. Accept the valid order and withhold CPR  
B. Disregard the invalid DNR; ask family their wishes  
C. Call the physician who signed the DNR to verify validity  
D. Seek an OLMC physician OK to accept the incomplete order
37. An unconscious elderly patient has agonal respirations and is found pulseless in idioventricular rhythm. A daughter presents you with a valid Ill Uniform DNR Advanced Directive (POLST) order with the patient's signature providing consent. Another daughter is very distraught and states that their father revoked the order yesterday. Neither have durable power of attorney for healthcare. What should a paramedic do?
- A. Resuscitate the patient based on the daughter's request and transport ASAP.  
B. Honor the DNR order. There is no conclusive evidence that it has been revoked and the daughter has no legal right to rescind the order.
38. Under what circumstances can a person with Power of Attorney for healthcare rescind a DNR order?
- A. They disagree with the physician's order  
B. They or another surrogate provided consent  
C. The pt who provided original consent is now non-decisional  
D. Family members need more time to agree on end of life decisions requested by the pt
39. What is the minimum time in minutes that monitored asystole must persist before seeking a physician's order to discontinue resuscitation in a normothermic adult who presents with unwitnessed cardiac arrest?
- A. 10  
B. 15  
C. 20  
D. 30

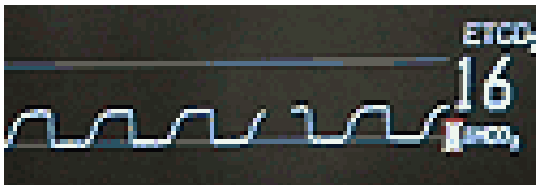
**ELDERLY PATIENTS**

40. Which of these is indicated in an elderly pt who is chronically hypercarbic and prone to ventilatory failure due to ↓ lung compliance, inability to breathe deeply, and ↑ WOB?
- Short bursts of hyperventilation
  - CPAP or ventilatory assist w/ BVM
  - Aggressive and rapid reversal of hypercarbia
  - Negative pressure ventilation optimizing venous return to the heart
41. Which of these are prescription medications that place an elderly patient at particular risk for expanding cerebral hematomas and rapid deterioration after blunt head trauma?
- Irbesartan (Avapro), Cozaar, Benicar
  - Atenolol, Zebeta, Coreg, Lopressor/Toprol
  - Bumex, Diazide, Lasix, hydrochlorothiazide
  - Eliquis, Plavix, Pradaxa, Xarelto, Coumadin
42. A conscious and decisional 80 y/o pt tripped and fell sustaining superficial abrasions and bruises on both knees and a sore wrist. A full assessment reveals normal mental status with intact neuro exam; there is no evidence of trauma to the head, chest, or abdomen, there is full range of motion and intact SMVs X 4. The patient is not taking any anti-coagulants. After cleansing and bandaging the wounds, placing a cold pack on the wrist, and affirming that the VS are WNL, the patient is refusing transport. Which of these is indicated per policy?"
- Execute a BLS refusal; no OLMC is needed
  - Execute an invalid assist, no OLMC is needed
  - Attempt to convince the pt to be transported; execute a BLS refusal, call OLMC from scene
  - Inform pt that they cannot refuse due to their age and must be transported for their safety
43. A 78 y/o presents with a sudden onset of profound weakness, fatigue, and dyspnea following a syncopal episode. The pt is currently awake and oriented X 3, denies chest pain, & has no facial droop, motor drift, or changes in speech. VS: BP 130/88; P 60; R 16; SpO<sub>2</sub> 97% with no orthostatic changes; glucose 120. Skin is pale and moist; lung sounds are clear bilaterally. Which of these is indicated next?
- NTG & ASA
  - 12 lead ECG
  - IVF challenge 200 mL NS
  - BLS transport to the hospital
44. What is the preferred way to move an elderly pt with a possible hip fracture from the floor to the stretcher prior to applying selective spine motion restriction?
- Use a 3 man carry
  - Use a scoop stretcher
  - Log roll onto a long back board
  - Have patient lift their buttocks so the spine board can be gently slid underneath them

**EXTREMELY OBESE PATIENTS**

45. Which of these should be done first to optimize airway and breathing in an extremely obese patient who is c/o dyspnea and has an SpO<sub>2</sub> reading of 86%?
- Lower the head of the stretcher & attempt DAI
  - Apply CPAP w/ PEEP 5 – 10 cm H<sub>2</sub>O; assist w/ BVM
  - Assist ventilations with V<sub>T</sub> 2 – 4 mL/kg to prevent air trapping in the lungs
  - Start an albuterol treatment as abnormal breath sounds will be impossible to hear
46. Which of these should be done if an extremely obese pt experiences a respiratory arrest?
- Insert an alternate airway rather than attempting a difficult intubation
  - Go directly to a cricothyrotomy as this will be the easiest route to secure
  - Lay the patient flat, hyperextend the neck & insert 2 nasopharyngeal & an oral airway
  - Use an oral rather than a nasal intubation approach as the nasal passages will be occluded

47. Which of these should be considered when assessing an extremely obese patient?
- Expect SpO<sub>2</sub> readings of 88% – 92% on 6L oxygen/min by mask
  - They frequently hyperventilate, so a capnography reading of 30 is normal
  - Breath sounds are easier to assess as their lungs hold much more capacity
  - Peripheral pulse ox sensors are more reliable than central sensors due to fat distribution
48. An unconscious adult weighs 400 lbs. The pt passed out following a new vigorous exercise regimen to lose weight. VS: BP 100/66; P 110; ECG ST; R 20; SpO<sub>2</sub> 94%; Glucose 30; skin extremely diaphoretic. No peripheral veins are palpable. Which of these is the best option?
- Adult IO needle to distal femur
  - Bariatric 45 mm IO needle to humerus
  - Abort IV attempts and transport immediately
  - Longest 20 g peripheral IV catheter to antecubital site
49. Which is true regarding the assessment or management of an extremely obese patient?
- Supine patients will have decreased range of motion
  - Motor strength is greater due to enlarged muscle mass
  - Pain perception is the most sensitive symptom of pathology
  - Symmetry is impossible to assess due to body surface distortion from uneven fat distribution
50. Which is true regarding the assessment or management of an extremely obese patient?
- Clinical abdominal exams are highly accurate for intraperitoneal irritation
  - OLMC should be contacted for weight-adjusted drug doses to avoid sub-therapeutic levels
  - To maintain privacy, defer inspection of the skin under the pannus until pt is admitted to the ED
  - All stretchers support bariatric pts if 2 long back boards are used side by side to extend the width
51. What is the recommend approach for assessing lung sounds in an extremely obese patient?
- Listen over the back first for early detection of crackles
  - Palpate for tactile fremitus rather than trying to hear lung sounds
  - Listen over the anterior apices as that is the only areas that will have discernible sounds
  - Ask the pt to breathe deeply through their mouth and listen anteriorly just inferior to the clavicles
52. The standard size BP cuff does not fit around the patient's upper arm in an extremely obese patient. Which of these is an acceptable adaptation for assessing the BP?
- Assume a strong radial pulse implies a SBP of >100 mmHg
  - Apply a central sensor and assume an SpO<sub>2</sub> >94% implies an OK SBP
  - Apply the standard size cuff to the forearm and listen over the radial artery
  - Assume that no change in pulse quality when pt changes from supine to sitting implies an OK MAP
53. An obese, sedentary, adult w/ NO hx of lung disease presents with a sudden onset of severe sharp pleuritic chest pain; severe dyspnea, tachypnea, restlessness, tachycardia and clear lung sounds. SpO<sub>2</sub> doesn't register and you see the capnogram below. Which of these is likely?



- Severe atelectasis
- Pulmonary embolus
- Acute pulmonary edema
- Spontaneous pneumothorax

54. An extremely obese adult presents with lightheadedness and abdominal pain. The pt states that they had recent weight reduction surgery and PMs note an incision over the LUQ. Which of these is the most important element of PMH for EMS to obtain in this patient?
- A. If the patient still has their appendix
  - B. Regularity of bowel movements following surgery
  - C. History of cholecystitis and whether their gall bladder was also removed
  - D. Type/nature of the procedure and pt compliance with follow up instructions

**AIRWAY OBSTRUCTION**

55. A foreign body is totally obstructing the upper airway of an unconscious adult. After repositioning of the head, ventilation is still unsuccessful. According to the SOPs, what intervention is indicated next?
- A. Begin CPR
  - B. Five abdominal thrusts
  - C. Surgical cricothyrotomy
  - D. Visualize the airway with laryngoscope and attempt to clear using forceps and/or suction
56. If a conscious infant less than one year presents with an upper airway obstruction, which intervention is indicated first after repositioning the head and attempting to ventilate?
- A. Five abdominal thrusts
  - B. Five back slaps followed by 5 chest thrusts
  - C. Direct laryngoscopy and removal with the Magill forceps
  - D. Intubate and push the obstruction into the right mainstem bronchus
57. Under what circumstances may PMs attempt a surgical cricothyrotomy on a child age 8 to 12 years?

**Drug assisted Intubation**

58. List two examples of patients where drug assisted intubation (DAI) may be indicated.

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59. If a patient is breathing at a rate of  $\geq 8$ , what preoxygenation (L flow/device) is indicated prior to DAI?
- A. 12-15 L/NRM for 3 minutes
  - B. 15 L/BVM for 6 large breaths

Benzocaine - Fill in the table	
Action/classification	
Contraindications	
Dose	
Side effects	



60. Which of these requires premedication with lidocaine 1.5 mg/kg prior to DAI?
- A. Pulmonary edema with PVCs
  - B. Hypertensive crisis
  - C. Trismus
  - D. Stroke
61. An adult with a GSS of 8 presents with possible cardiogenic shock. They are unable to protect their own airway. Gag reflex is absent. VS: BP 60/30; HR 110; R 8 and shallow with period of apnea; SpO<sub>2</sub> 86%; EtCO<sub>2</sub> 26 with square waveform. Which of these is indicated first for this patient during DAI?
- A. Lidocaine
  - B. Etomidate
  - C. Midazolam
  - D. Benzocaine
62. Which of these is accurate with respect to the dosing of midazolam for DAI?
- A. 2 mg rapid IVP q. 30 to 60 sec up to 10 mg
  - B. 2 mg slow IVP every 2 min up to 10 mg
  - C. 5 mg slow IVP/IN if SBP ≥ 90 (MAP ≥ 65)
  - D. 10 mg IM if SBP ≥ 90 (MAP ≥ 65)

63.

Etomidate – fill in the table	
Action/classification	
Contraindications	
Dose by weight	
Max dose	
Side effects	

64. Which drug sequence is appropriate in a hemodynamically stable patient who requires DAI, but their teeth are clenched?
- A. Benzocaine spray, midazolam, etomidate
  - B. Etomidate, benzocaine, midazolam
  - C. Midazolam, etomidate, benzocaine
  - D. Fentanyl, etomidate, benzocaine
65. If you see the capnogram below after intubating a patient, what should a paramedic suspect?



- A. Right mainstem intubation
- B. Confirmed tracheal tube placement
- C. Contamination of the sensor with water or secretions
- D. Esophageal intubation with gastric washout of residual carbon dioxide

66. Is use of a commercial tracheal tube holder device optional or required in the NWC EMSS?
- A. Optional
  - B. Required
67. Is the use of head immobilization after all intubations optional or required in the NWC EMSS?
- A. Optional
  - B. Required
68. What can be given to prolong post-intubation sedation if an intubated patient starts fighting the tube or assisted ventilations?
- A. Fentanyl
  - B. Lidocaine
  - C. Etomidate
  - D. Midazolam
69. Which action is indicated if an unconscious patient with a pulse cannot be intubated or ventilated/oxygenated after insertion of an advanced alternative airway or by using BLS airways and a BVM?
- A. Start CPR
  - B. Cricothyrotomy
  - C. Apply a C-PAP mask
  - D. Load and go and alert the receiving hospital of an incoming patient in critical condition
70. An adult has sustained blunt head and nasal trauma. The patient is unconscious (GCS 6), unresponsive to pain, has no gag reflex, is hypoxic and has an impaired airway. One PM has attempted to visualize the vocal cords twice in order to intubate but has been unsuccessful. Which of these is indicated next?
- A. King LTS-D airway and ventilate with 15 L O<sub>2</sub>/BVM
  - B. Surgical cricothyrotomy and give 15L O<sub>2</sub>/ peds BVM
  - C. Change blade type and length; & attempt to intubate one more time
  - D. Insert 2 nasopharyngeal airways and transport immediately with O<sub>2</sub> 15 L/BVM

Refer to King Airway procedure to answer

71. If a patient is taller than 6 feet, what size King airway should be inserted?
- A. 3 (yellow)
  - B. 4 (red)
  - C. 5 (purple)
  - D. 6 (green)
72. List two contraindications for King airway insertion
- 
- 
73. Where should lubricant be applied to the King airway prior to insertion?
- A. Entire surface of both balloons
  - B. Entire surface distal to the large balloon
  - C. Anterior aspect of the tube to facilitate entry through cords
  - D. Distal tip and posterior surface, avoiding ventilatory openings
74. When first inserting the King airway, where should the blue orientation line be touching?
- A. Middle of the top lip
  - B. Middle of the lower lip
  - C. Corner of the patient's mouth

75. The King airway should be advanced until the
- A. proximal cuff passes beyond the teeth.
  - B. 22 cm mark is at the patient's front teeth.
  - C. tube adaptor is entirely in the patient's mouth.
  - D. color adaptor is aligned w/ front teeth or gums.
76. What is the next step after advancing the tube as above?
- A. Aspirate an EDD
  - B. Listen to breath sounds
  - C. Attach the capnography monitor
  - D. Inflate the cuffs with minimum volume
77. What does "bounce back" indicate when placing the King airway and what should be done next?
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78. What action is required after inflating the King airway cuffs?
- A. Note the cm markings at the teeth
  - B. Secure the tube and monitor pulse oximetry readings
  - C. While ventilating and auscultating chest, withdraw King until breath sounds heard & ventilations easy/free flowing

### **Allergic Reactions/Anaphylactic shock**

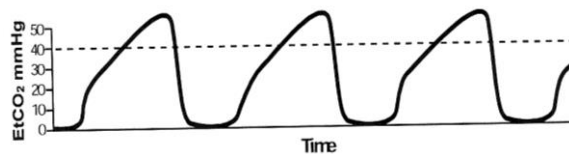
79. An adult presents with dyspnea, anxiety, facial swelling, watery eyes, and sneezing following exposure to a cat. VS: BP 110/70; P 100; R 24; SpO<sub>2</sub> 94%; EtCO<sub>2</sub> 28 with a shark fin waveform; lung sounds: diffuse wheezing. Which of these is indicated first?
- A. Diphenhydramine 1 mg/kg IM
  - B. Epinephrine 1:1,000 0.3 mg IM
  - C. Epinephrine 1:10,000 0.1 mg IVP
  - D. Albuterol & ipratropium via HHN
80. An adult presents with peripheral tingling, scratchiness in the back of the mouth and throat, nasal congestion, eye tearing, and persistent sneezing following yard work. VS: BP 130/80; P 84; R 16; SpO<sub>2</sub> 98% on room air; EtCO<sub>2</sub> 38 with a square waveform, and lung sounds are clear. Which of these is indicated?
- A. Epinephrine 1:1,000IM
  - B. Epinephrine 1:10,000 IVP
  - C. Albuterol & ipratropium/HHN
  - D. Diphenhydramine IM or slow IVP
81. A 30 y/o agitated female presents after being stung by a bee 15 minutes ago. She is extremely short of breath, has a swollen face, tongue, and lips. Her voice is hoarse and she is developing stridor. VS: BP 86/40; P 124; R 40; RA SpO<sub>2</sub> 82%; lung sounds are bilaterally diminished. IMC is NOT completed. Which of these should be given first?
- A. Diphenhydramine 50 mg IM
  - B. Epinephrine 1:1,000 1 mg IM
  - C. Albuterol 2.5 mg via nebulizer
  - D. Epinephrine 1:1,000 0.5 mg IM
82. A conscious and oriented adult has been stung by a bee 15 minutes ago and presents with a red, very painful swollen area at the injection site. There is no rash, tearing, angioedema, wheezing, or dyspnea. VS are within normal limits (WNL). Which of these is indicated per SOP?
- A. Epinephrine 1:1,000 IM
  - B. Diphenhydramine IM or slow IVP
  - C. Apply a cold pack and observe for progression
  - D. Apply a hot pack to vasodilate the area and disperse the venom

83. Why are consecutive IV fluid challenges indicated for a patient in anaphylactic shock?
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84. Which of these is a precaution to giving epinephrine to a patient with a moderate allergic reaction?
- Peanut allergy
  - Hypertensive BP
  - Pt is taking ACE inhibitors
  - HR that is borderline bradycardic
85. If a patient in anaphylactic shock does not respond to IV fluid challenges and epinephrine and the SBP remains less than 90 (MAP < 65), what drug is indicated next?
- Albuterol 2.5 mg/HHN
  - Glucagon 1-2 mg IVP slowly
  - Dopamine; 10 mcg/kg/min IVPB
  - Diphenhydramine 50 mg slow IVP
86. What adjustment to normal resuscitation should be made for an adult in anaphylactic shock who experiences a cardiac arrest due to V-fib witnessed by EMS personnel?
- Defer CPR until an advanced airway is placed and ventilations are supported
  - Delay defibrillation until epinephrine and diphenhydramine have been given
  - Defibrillate at the highest joule setting for the monitor-defibrillator used
  - Start 2 IVs; infuse NS as rapidly as possible (up to 8 L)
87. What concentration, dose, route, and timing of epinephrine is indicated for an adult in anaphylactic shock who goes into cardiac arrest?
- 1:000 0.3 mg IM every 2 minutes
  - 1:000 1 mg IVP every 3 to 5 minutes
  - 1:10,000 1 mg IVP/IO every 2 minutes
  - 1:10,000 1 mg IVP/IO every 3 to 5 minutes

### **Asthma/COPD**

88. If an adult with a severe asthma attack requires assisted ventilations, at what rate per minute should the patient be ventilated?
- 6 -12
  - 12 -14
  - 16 - 20
  - 20 – 24
89. An adult presents with severe respiratory distress from an asthma attack. Lungs sounds are diminished bilaterally with slight wheezing. VS: BP 150/90; P 150; ECG ST; R 32 & shallow; SpO<sub>2</sub> 92%; capnography 26 with shark fin waveform. After applying CPAP at 10 cm PEEP, the BP drops to 94/60. Which of these is indicated *first*?
- Titrate the PEEP downward to 5 cm
  - Supplement the CPAP O<sub>2</sub> with a NC
  - Remove the CPAP mask and intubate
  - Prepare a dopamine drip to support the BP
90. Is ipratropium to be added to 2<sup>nd</sup> and subsequent albuterol treatments? \_\_\_\_\_ Yes / No
91. Which of these is indicated if a patient with a chronic hypercarbic state (COPD) presents with acute respiratory failure?
- Give 1 amp of bicarb to reverse the acidosis
  - Slowly reduce the EtCO<sub>2</sub> (not more than 5 mmHg/hr)
  - If intubated, hyperventilate to an EtCO<sub>2</sub> of 30-35 mmHg
  - Correct the acute resp. acidosis back to a normal EtCO<sub>2</sub> as quickly as possible

92. What should be the **first** intervention for a patient with COPD in profound respiratory distress with bilaterally diminished breath sounds, altered mental status, fatigue, exhaustion, severe hypoxia (SpO<sub>2</sub> 84%) and capnography 66 with a shark fin waveform?
- CPAP at 10 cm PEEP
  - Epinephrine 1:1,000 0.3 mg IM
  - 15 L O<sub>2</sub>/NRM and prepare for DAI
  - Albuterol 2.5 mg & ipratropium 0.5 mg /HHN
93. Which of these should be given first to a patient with COPD in mild to moderate ventilatory distress with wheezing?
- Magnesium IVP
  - Diphenhydramine
  - Epinephrine 1:1,000 IM
  - Albuterol & ipratropium /HHN
94. Which of these is indicated first if a hemodynamically stable pt with a hx of asthma presents with orthopnea, good ventilatory effort but use of accessory muscles, capnography 55 & waveform below, bilaterally diminished breath sounds, strong radial pulse and an SpO<sub>2</sub> of 91%?



- CPAP + Epi 1,1000 0.3 mg IM
  - Intubation and inline albuterol per BVM
  - Intubation and epi 1:10,000 0.1 mg IVP
  - CPAP and magnesium sulfate 2 gm slow IVP
95. What is the indication for giving magnesium sulfate to a patient with an asthma attack?
- Severe respiratory distress unresponsive to epinephrine
  - Moderate respiratory distress with a history of beta blocker use
  - Moderate distress with increasingly peaked T waves on the ECG
  - Mild to moderate distress unresponsive to albuterol and ipratropium
96. At what rate should magnesium sulfate be administered to an adult?
- Rapid IV push
  - Over 2 minutes
  - Over 5 minutes
  - Over 10 minutes

**Acute coronary syndromes (ACS)**

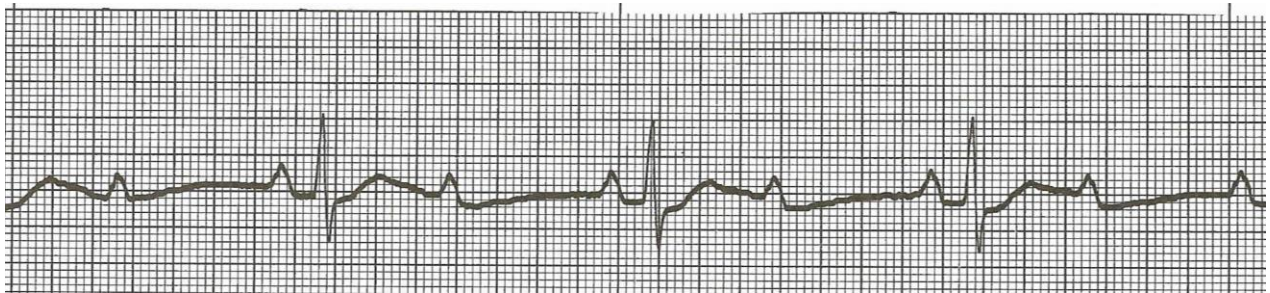
97. List 3 anginal equivalents that should cause EMS and ED personnel to suspect a possible ACS event:
- 
- 
- 
98. Which patient is most likely experiencing cardiac ischemia & should be treated per that SOP?
- 25 y/o w/ PMH asthma c/o burning epigastric pain 8/10 after eating spicy food about 30 min ago.
  - 75 y/o c/o Lt-sided pleuritic chest pain (6/10). Began with a fever and sore throat that progressed to a productive cough the last 2 days.
  - 50 y/o w/ PMH of HTN & DM c/o aching feeling in shoulder (3/10) & dyspnea that began at rest 10 min ago. He appears pale & diaphoretic.
  - 42 y/o c/o left-sided chest pain (7/10) that began after she fell and struck her chest one hour ago. Describes as “dull aching.” Redness noted, tender to palpation.

99. How should oxygen be delivered to a patient with chest pain and mild dyspnea who presents with adequate ventilatory rate/depth, minimal distress and an SpO<sub>2</sub> of 93%?
- A. No oxygen is indicated
  - B. NC at 1-6 L/min to achieve SpO<sub>2</sub> ≥ 94%
  - C. NRM at 12-15 L/min to achieve SpO<sub>2</sub> ≥ 98%
  - D. CPAP at 5 cm PEEP to achieve SpO<sub>2</sub> ≥ 95%
100. A 65 y/o conscious adult is c/o diffuse chest pain (5/10) without radiation following a frontal impact MVC. There is a red diagonal line across his chest that appears to be developing seat-belt sign. VS: BP 140/90; HR 110 & regular; ECG: ST; R 16; SpO<sub>2</sub> 96%, breath sounds clear and equal bilaterally; and heart sounds: distinct S1 & S2. PMH: HTN. Meds: losartan, hydrochlorothiazide. Which of these is indicated first?
- A. Chewable ASA
  - B. Oxygen 2 L/NC
  - C. Set up for a 12 L ECG
  - D. Nitroglycerin 1 tab SL
101. At what point in the call should a 12-lead ECG be obtained when caring for a patient with possible ACS?
- 
102. If a prehospital 12-lead ECG indicates an acute myocardial infarction (AMI), what is a priority action for a paramedic to take in the NWC EMSS?
- A. Communicate ECG findings to OLMC ASAP
  - B. Prep the patient for administration of fibrinolytics (tPA)
  - C. Hang a NTG drip and administer a rapidly acting beta blocker
  - D. Wait 5 minutes and repeat the 12 lead to confirm the abnormal changes
103. What is the action of aspirin (ASA) when given to a patient with ACS?
- 
104. List two contraindications to giving chewable ASA to a patient with possible ACS.
- 
105. What is the dose of chewable ASA for ACS?
- 
106. An adult presents with chest tightness (7/10) for the past 30 minutes and you suspect ACS. VS: 170/90; P 124, ECG ST; 12-lead reads "Acute MI suspected, Anterior-lateral"; R 24; SpO<sub>2</sub> 98%; lungs are clear. Besides chewable ASA, which of these is indicated?
- A. NTG X 3
  - B. O<sub>2</sub> 2 L/NC
  - C. Fentanyl for pain
  - D. Midazolam for anxiety
107. Which of these should be anticipated if NTG is given to a patient with ST elevation in leads II, III, and AVF?
- A. Oxygen demand will increase in the ischemic zone expanding the area that is damaged
  - B. The coronary artery will dilate, perfusion will be restored, and ischemia will be prevented
  - C. Dilation of the L circumflex overcomes the perfusion deficits caused by the blockage in the RCA
  - D. Venous return is reduced in a preload dependent patient and cardiac output can drop remarkably

108. Is NTG indicated for a patient with ACS who took Levitra (vardenafil ) 36 hours ago?  
 A. Yes B. No
109. How often and what total dose may NTG be given to an adult with ACS? \_\_\_\_\_
110. What is the major cardiovascular side effect of NTG? \_\_\_\_\_

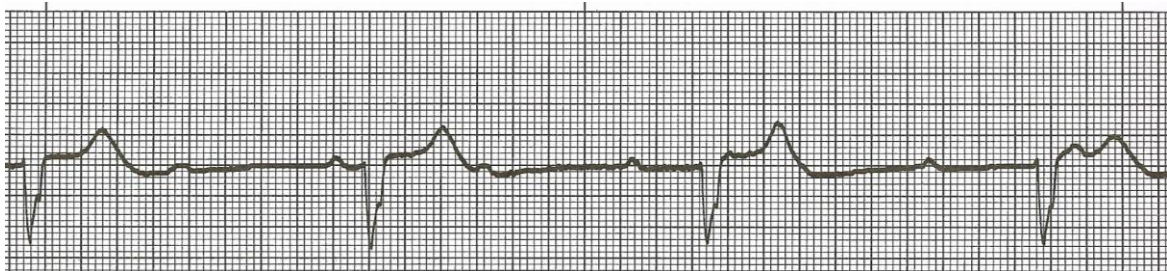
**Bradycardia w/ a pulse**

111. A 70 y/o male began to experience chest pain rated 9/10 while getting dressed. He is awake and answers questions appropriately. VS: BP: 96/60; P: 36; ECG: as below; R 18; SpO<sub>2</sub> 93%; lungs: clear; glucose: 120. Skin is warm and dry. He denies allergies, meds or a past medical history. Weight: 190 lbs.



- Is this patient a candidate for ASA? [ ] Yes [ ] No  
 Oxygen? [ ] Yes [ ] No  
 NTG? [ ] Yes [ ] No  
 Fentanyl? [ ] Yes [ ] No

112. What intervention is indicated next for the above patient?  
 A. Atropine 0.5 mg rapid IVP  
 B. Hang a dopamine drip starting at 17 mcgts/min.  
 C. Begin external transcutaneous pacing at 60 BPM  
 D. Place TCP pads in anticipation of clinical deterioration
113. An elderly adult presents with altered mental status and weakness following a syncopal episode. The patient does not respond to commands. VS: BP 60/30; P 30 (weak at carotids), ECG: see below; 12 shows ST elevation in V1-V4; R 20, SpO<sub>2</sub> 90%; lungs clear; glucose 110. Skin is pale, cold, and moist. Weight 190 lbs.



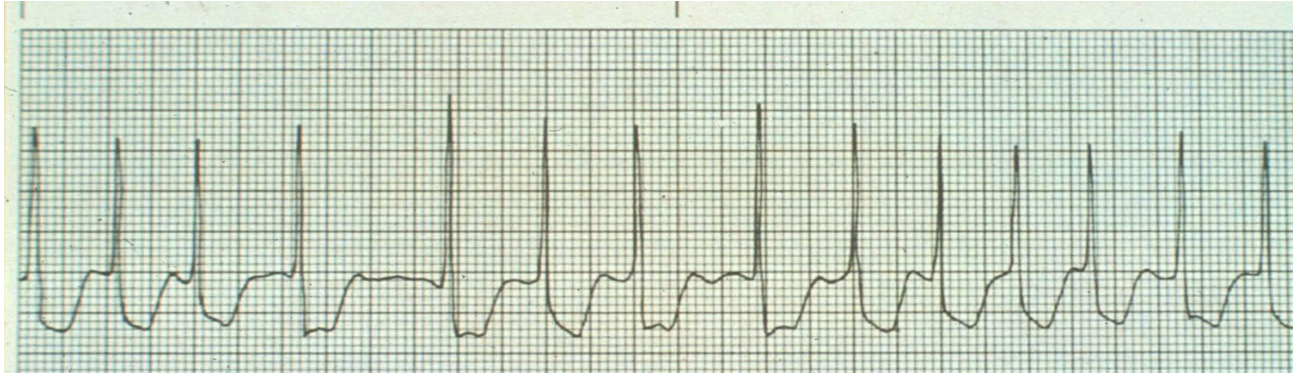
- Which of these is indicated first for the above patient?  
 A. Place TCP pads in anticipation of clinical deterioration  
 B. Begin external transcutaneous pacing at 60 BPM  
 C. Hang a dopamine drip starting at 17 mcgts/min  
 D. Atropine 0.5 mg rapid IVP





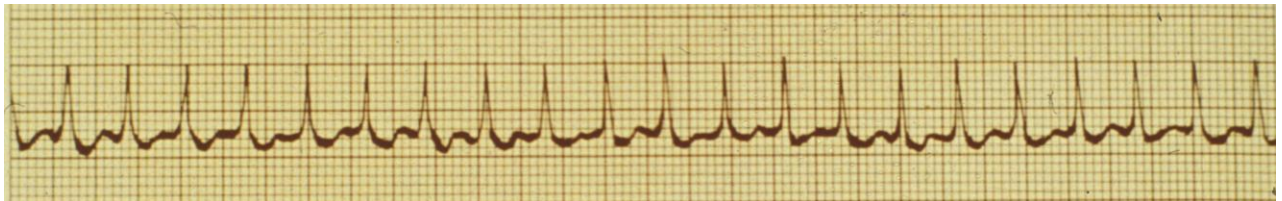


122. A conscious and alert adult is complaining of chest pain and palpitations. VS: BP 110/74; P 140; R 16; SpO<sub>2</sub> 95%. ECG as below.

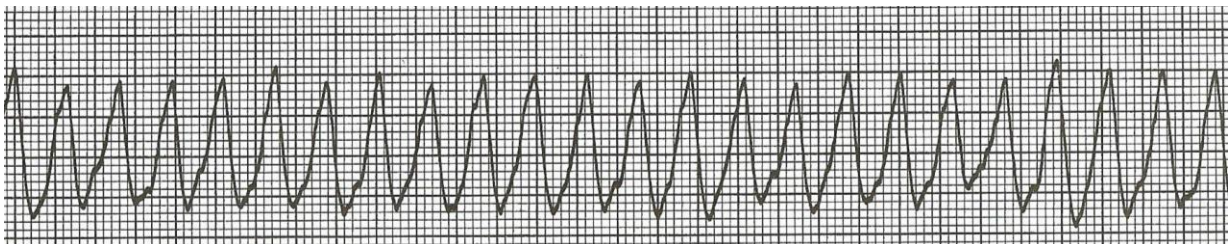


After Vagal maneuvers are unsuccessful in slowing the rhythm, what intervention is indicated?

- A. Verapamil 5 mg slow IVP
  - B. Adenocard 6 mg rapid IVP
  - C. Magnesium 2 Gm slow IVP
  - D. Amiodarone 150 mg slow IVP
123. An adult presents with grossly altered mental status and is slow to respond to questions. He is complaining of chest pain and has the following rhythm. A weak and rapid carotid pulse is palpable. Which intervention is indicated first (assume no IV/IO yet)?

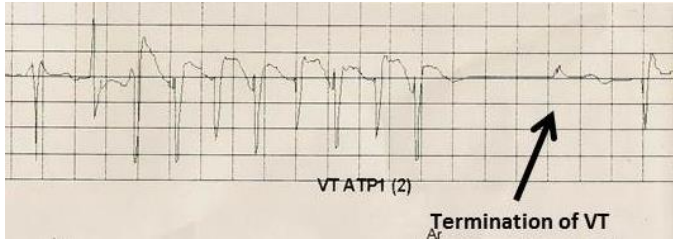


**Ventricular tachycardia w/ a pulse**

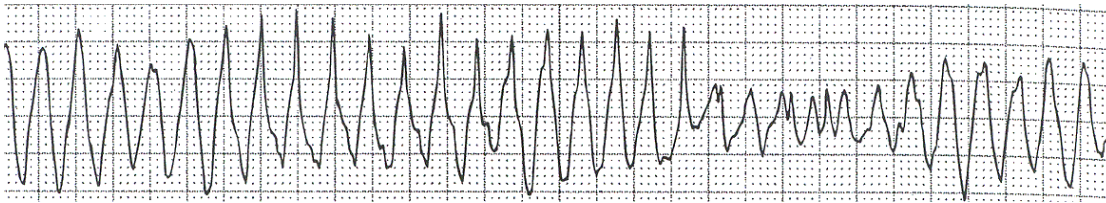


124. Which intervention is indicated for a conscious & alert adult with a radial pulse and BP 100/70 who presents in the above rhythm?
- A. Lidocaine 1.5 mg/kg IVP
  - B. Synchronized cardioversion at 100 J
  - C. Magnesium 2 Gm in 16 mL NS slow IVP
  - D. Amiodarone 150 mg mixed w/ 7 mL NS slow IVP
125. What intervention is indicated immediately if the above pt develops altered mental status or drops their SBP < 90 and a LifePak 15 monitor is being used?

126. A conscious adult presents with chest pain and palpitations. After confirming V-tach, PMs start to give amiodarone slow IVP. Midway through the dose, they observe the following change to the ECG and VS are stable. Which of these is indicated?



- A. Finish the amiodarone dose  
 B. Stop the amiodarone and transport
127. What intervention is indicated for a conscious adult with a radial pulse & BP 100/70 in the rhythm below?



- A. Synchronized cardioversion at 100 J  
 B. Magnesium 2 Gm in 16 mL NS slow IVP  
 C. Amiodarone 150 mg mixed w/ 7 mL NS slow IVP  
 D. Defibrillation at 360 J or device-specific biphasic setting per VF SOP
128. What intervention is indicated if the above patient develops an altered mental status or drops their SBP < 90?

### Ventricular fibrillation/pulseless VT

129. What is the current recommendation with respect to pulse checks in unresponsive patients?
- A. If not definitely felt in < 10 sec start CPR  
 B. If not definitely felt in < 5 sec – defibrillate the patient  
 C. Pulses cannot be felt during cardiac arrest – so the step was omitted  
 D. Accurate assessment was emphasized and the time expanded to check for 15 sec
130. Which of these is indicated FIRST if an adult is found unresponsive, apneic and pulseless after c/o chest pain to coworkers?
- A. Give two quick breaths before starting compressions  
 B. Apply pads and defibrillate immediately  
 C. Do a quick look and check the rhythm  
 D. Begin CPR with compressions
131. What addition to EMS cardiac arrest resuscitation procedure has shown to improve CPR quality and more than double patient survival to discharge?
- A. High dose epinephrine  
 B. Use of anterior/posterior defibrillation  
 C. Real time, CPR audiovisual feedback device  
 D. Transporting earlier for more sophisticated interventions at the hospital
132. What is the maximum length of time in seconds that chest compressions should be interrupted to check the rhythm and/or defibrillate the patient?
- A. < 10  
 B. 10 to 15  
 C. 15 to 20  
 D. 20 to 30

133. What is the optimal CPR compression rate per minute for an adult when a ResQPod is being used?
- A. 60
  - B. 80-100
  - C. At least 100
  - D. Approximately 120

134. What should be the chest compression depth for adults during CPR?
- A. ½ to 1 inches
  - B. 1½ to 2 inches
  - C. At least 2 inches
  - D. ½ the anterior posterior chest diameter

135. What can be implied if capnography readings remain at 25 during CPR?
- A. Compression quality is good
  - B. Resuscitation (ROSC) is unlikely
  - C. The patient is profoundly hypoxic
  - D. Need to switch person doing the compressions

136. What is the initial J setting to defibrillate a patient in VF if using a Zoll rectilinear biphasic defibrillator?
- A. 50
  - B. 120
  - C. 200
  - D. 360

137. Which of these is indicated immediately after defibrillating a patient in pulseless arrest?
- A. Check for a pulse
  - B. Assess the rhythm
  - C. Resume chest compressions
  - D. Give 2 quick breaths and then resume compressions

138. A conscious, pulseless adult presents in VF with the device at right attached to his person. What EMS intervention is indicated first?
- A. Disconnect the batteries and resuscitate as usual
  - B. Do NOT disconnect the batteries; call the LVAD coordinator on the pt's referral info sheet



139. An unconscious, pulseless adult presents in VF with the device at right attached to his person. What EMS intervention is indicated first?
- A. Disconnect the batteries and resuscitate as usual
  - B. Do NOT disconnect the batteries; allow the LifeVest to continue firing prior to starting EMS resuscitation



140. What is the preferred contemporary approach to airway mgt in a patient in cardiac arrest?
- A. Airway mgt no longer important if rescuers perform quality chest compressions
  - B. Intubate ASAP as long as compressions are not interrupted for more than 60 sec
  - C. BLS airways transitioning to King LT to enable continuous chest compressions

141. Which of these should be administered in VF as soon as vascular access is established to improve the effectiveness of CPR by vasoconstricting the arteries?
- A. Dopamine in high doses
  - B. Lidocaine or amiodarone
  - C. Vasopressin or epinephrine

142. What is the initial dose of amiodarone for patients in VF?
- A. 50 mg
  - B. 100 mg
  - C. 150 mg
  - D. 300 mg
143. What is the repeat dose of amiodarone for patients in VF and how long after the 1<sup>st</sup> dose should it be given?
- 
144. How often should patients in refractory/persistent VF be defibrillated?
- A. Every 2 minutes
  - B. After each minute of CPR
  - C. Each time CPR is paused to do an ALS intervention
  - D. Whenever the patient is moved and it is safe to discharge the paddles
145. What is the first clue of return of spontaneous circulation (ROSC)?
- A. Pulses and BP return
  - B. The patient opens their eyes
  - C. Patient bites the ET tube or King airway
  - D. Abrupt and sustained rise in capnography reading w/ normal waveform
146. An adult experienced ROSC from VF. The pt is unconscious, remains intubated; and EtCO<sub>2</sub> has a square waveform and digital reading of 62 mmHg. The pt is breathing spontaneously. VS: BP 80/50; P 76; R 12; SpO<sub>2</sub> 93%. Which of these is indicated?
- A. O<sub>2</sub> to achieve an SpO<sub>2</sub> of 100%
  - B. Hyperventilate to an EtCO<sub>2</sub> of 30
  - C. O<sub>2</sub> just to achieve an SpO<sub>2</sub> of 94%
  - D. Secure ResQPod to ensure good ventilations
147. An adult experienced ROSC from VF. The pt is unconscious, remains intubated, and is breathing on his own. VS: BP 80/50; P 76; R 12; SpO<sub>2</sub> 94%; EtCO<sub>2</sub> 40 with square waveform. How should the patient's hemodynamic status be supported?
- A. IVF challenges of warm NS up to 2 L
  - B. Run IV line wide open while prepping DOPAMINE
  - C. If BP < 90 after 10 min give 1 mg of epinephrine IVP
  - D. Do two more minutes of CPR to support cardiac output
148. Why is it important to obtain a 12 L ECG ASAP after ROSC?
- A. Get the best possible rhythm analysis
  - B. Look for evidence of benign early repolarization
  - C. See if the heart was damaged during the resuscitation
  - D. Determine the need for an urgent cardiac catheterization (STEMI)

### **Asystole/PEA**

149. An adult presents with IVR & PEA. CPR has been in progress for 12 min, the pt has been given epi 1 mg IVP X 3 & vasopressin 40 u; a King LT is placed and EtCO<sub>2</sub> is 25 mmHg. An empty bottle of amitriptyline is next to the pt. Which of these is indicated?
- A. Atropine
  - B. Glucagon
  - C. Sodium bicarbonate
  - D. Terminate resuscitation; further attempts are futile

**Heart Failure (HF)/Pulmonary Edema/Cardiogenic Shock**

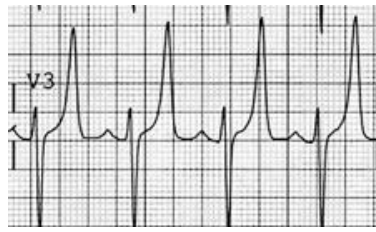
150. Which of these is indicated first if an adult in pulmonary edema presents with severe respiratory distress and/or altered mental status?
- O<sub>2</sub> 10-15 L/NRM
  - DAI and O<sub>2</sub> 15 L/BVM
  - O<sub>2</sub> 15 L (FiO<sub>2</sub> 60%)/C-PAP mask w/ 5 cm PEEP
  - O<sub>2</sub> flush (FiO<sub>2</sub> 95%)/C-PAP mask w/ 10 cm PEEP
151. An adult presents with dyspnea that has gradually gotten worse over the past 3 days. The patient denies chest pain, cough, fever, or recent illness. PMH: Hypertension (HTN) and high cholesterol. They are supposed to be taking Hydralazine and Vytorin, but have not been taking them recently. VS: BP 186/100, P 90; ECG SR w/ no evidence of AMI; R 24, SpO<sub>2</sub> 92%; capnography 32 with square waveform; lungs have wheezing bilaterally. Which of these is indicated for this patient?
- C-PAP & NTG
  - Epinephrine 0.3 mg IM
  - O<sub>2</sub> 15 L/NRM and transport
  - Albuterol & ipratropium/HHN
152. An adult is being treated for pulmonary edema with C-PAP at 7 cm of PEEP. They are very anxious and not tolerating the mask well. VS: BP 190/94, P 122, R 28, SpO<sub>2</sub> 90%. Lungs have bilateral crackles in both bases. What action is indicated *first*?
- Increase PEEP to 10 cm and FiO<sub>2</sub> to 95%
  - Perform DAI and assist ventilations with a BVM
  - Stop C-PAP and switch to a nonrebreather mask
  - Have a paramedic coach the patient, consider giving midazolam in 2 mg increments
153. If total patient contact and transport time are listed as 25 minutes on the patient care report, what is the minimum number of nitroglycerin tabs that should have been given to a patient in acute pulmonary edema who has a SBP > 90? (*Hint* - think of the time of patient contact as the 0 minute mark up to the 25 minute mark when pulling up to the hospital. Use the longest interval dosing in the SOP.)
- 
154. An adult had an onset of chest pain (rated 10/10) 30 minutes ago while watching TV. Wt: 200 lbs. PMH: HTN; Meds: Cozaar; denies any allergies. Skin: cold and diaphoretic with dusky lips and nailbeds and no ankle edema; lungs have crackles bilaterally. VS: BP 70/50; P 86; R 28; ECG: SR; SpO<sub>2</sub> 70%; capnography 30 with square waveform. After IMC, which intervention is indicated?
- C-PAP w/ 10 cm PEEP
  - Nitroglycerin 0.4 mg SL
  - Fluid challenges in 200 mL increments
  - Dopamine drip, starting at 18 mcgts/min

**MEDICAL EMERGENCIES**

155. A patient with a pulsating midline abdominal mass above the umbilicus is c/o severe abdominal pain radiating to the back and severe flank pain with diminished femoral pulses. VS: BP 98/66; P of 100. Should this patient be treated with IV fluid challenges?
- Yes
  - No
156. An adult presents with severe abd pain (10/10). The abdomen has significant involuntary guarding, point tenderness and rigidity in the RLQ, & the patient winces when the heel is tapped (rebound tenderness.) VS are WNL. Is this patient a candidate for fentanyl per SOP?
- Yes
  - No



157. An adult presents with severe weakness prior to renal dialysis. ECG as below. Which drugs are indicated?



- 
158. A 75 y/o adult with a Hx of HTN presents following a syncopal episode. The patient is currently awake and answering questions appropriately. VS and pulse oximetry are within normal limits; pupils are midpoint, equal, and reactive to light. There is no history of a seizure disorder and the patient is not incontinent. Besides a glucose reading, what other diagnostic assessment should be performed?
- 
159. Why is the initial naloxone dose 0.4 instead of 2 mg?
- Higher doses can lead to sedation and hypotension
  - Low doses reverse opiates as effectively as high doses
  - Higher doses can cause rapid withdrawal in opioid-dependent pts
  - Low doses prevent the need for an advanced airway without waking them up
160. A 40 y/o male has the odor of alcohol on his breath. He is unable to tell you his address or phone number, is unable to perform rapid alternating movements, and cannot touch his finger to his nose. He is agitated, uncooperative with your attempts to place him on the stretcher, and is refusing transportation to the hospital. Which of these is indicated first?
- Obtain a blood glucose reading to assess for hypoglycemia
  - Leave him in the custody of police to sleep it off, as he is apparently intoxicated
  - Provide him with full disclosure of risk and have him sign the Release of Service form
  - Administer midazolam in 2 mg increments to decrease his agitation and facilitate transport
161. What has been added to the physical exam of an intoxicated patient to determine the degree of motor impairment?
- Cerebellar exam
  - Full cranial nerve exam
  - Cincinnati stroke screen
  - Grading motor strength on a scale of 1 to 5
162. An adult patient is awake and jittery with a history of type 1 diabetes. VS: BP 150/80; P 116; and R 16. Glucose level is 62. What intervention is indicated?
- 
163. What drug should be given to hypoglycemic patients with altered mental status (AMS) when vascular access cannot be established?
- 
164. An unconscious adult received dextrose 10% IVP for hypoglycemia. After regaining consciousness, the patient is refusing transport to the hospital. What must the patient be advised before EMS leaves the scene?
- Need to eat to prevent recurring hypoglycemia
  - Check their blood sugar ever 5 minutes for the next hour
  - Skip their next dose of insulin to avoid another dip in blood sugar
  - Take their next insulin dose early to offset the effects of the IV dextrose

165. What 3 clinical signs or symptoms must be present for a patient to be treated for diabetic ketoacidosis (DKA)?

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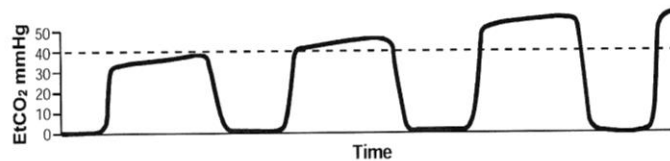


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166. What intervention is indicated for DKA or Hyperosmolar Hyperglycemic Non-ketotic Syndrome (HHNS)?

- A. 10% dextrose, 250 mL IV or IO
- B. NS wide open up to 1 L unless contraindicated
- C. O<sub>2</sub> at 2 L per simple face mask so the patient rebreathes CO<sub>2</sub> and stops hyperventilating
- D. Assist the patient in administering an additional dose of insulin to bring the blood sugar down

167. An adult presents w GCS 9 (2, 2, 5) with snoring ventilations. VS: T 98.7° F, BP 100/70, P 84, R 8; RA SpO<sub>2</sub> 90%. Skin: diffuse flushing w/o lesions or bruising; lungs clear bilaterally; Pupils small & reactive; abdomen: normal bowel sounds; no distension or tenderness. PMH unknown. Capnography below. Which of these is indicated?



- A. CPAP 5 cm PEEP; glucagon 1 mg IVP
- B. O<sub>2</sub> 15 L/BVM; blood glucose level; naloxone
- C. O<sub>2</sub> NC to SpO<sub>2</sub> 94%; sodium bicarb 1 mEq/kg IVP
- D. Intubation w/ 100% O<sub>2</sub>/BVM; inline albuterol & ipratropium

168. What drug and dose is indicated if a patient has severe HTN, excited delirium, severe anxiety/agitation, or serotonin syndrome following ingestion of cocaine?

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169. A patient with a GHB OD is in respiratory arrest with tightly locked jaws. Should this patient be intubated?

- A. Yes
- B. No

170. What drug and dose should be given to a patient who presents with tearing, drooling, nausea, and tiny pupils following exposure to organophosphates?

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171. What is an important consideration when using the RAD-57 pulse co-oximeter device?

- A. The device eliminates the need to assess SpO<sub>2</sub>
- B. The device will only detect CO poisoning about 50% of the time
- C. It is highly accurate and an essential tool to diagnose CO poisoning
- D. The device is better able to detect cyanide poisoning than a clinical assessment

172. A patient presents with possible CO poisoning with a GCS of 9; BP 150/90; P 120; R 26; SpO<sub>2</sub> 98% and clear lung sounds. Where should NWC EMS paramedics transport this patient?

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173. What antidote to cyanide poisoning is an alternative to amyl nitrite inhalents?

- A. Cyanokit – Hydroxocobalamin
- B. Sodium thiosulfate
- C. Amyl nitrate IVP
- D. Methylene blue

174. What interventions are indicated to rapidly rewarm frostbite and to protect the skin?

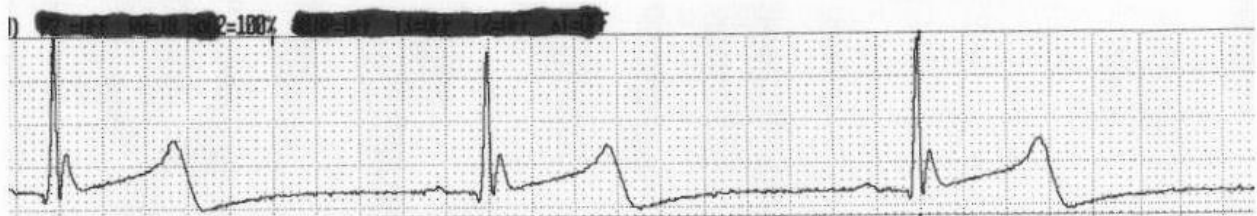
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175. Should apneic pts with severe hypothermia (T < 86° F) in an agonal rhythm be intubated? Yes / No  
 Should they be hyperventilated? Yes / No  
 Be defibrillated? Yes / No  
 Receive vasopressors? Yes / No

176. An adult slept in his car in subfreezing temperatures. The pt responds slowly to voice but is confused. There is no shivering. Skin is pale and cold; extremities are stiff. A carotid pulse is palpable at 30; ECG: below; R 6; T 84° F; lungs are clear; pupils are dilated. What type of rewarming does this patient require?



- A. Active external with blankets and hot packs all over the body
- B. Rewarm trunk only, avoid rewarming extremities**

177. An adult was rescued from a lake after being submerged for about 5 min after falling off of an inflatable raft. After 2 min of CPR the pt has ROSC, wakes up, has good respiratory effort, and is refusing transport. VS: BP 110/70; P 60; R 16; SpO<sub>2</sub> 92%; lungs sound congested. Which of these is indicated?

- A. Apply CPAP
- B. Trendelenburg position to drain the lungs and spine motion restriction
- C. Perform abdominal thrusts to help clear the lungs of fluid before reassessing his status
- D. Apply O<sub>2</sub> 15 L/NRM while giving patient full disclosure of risk prior to executing the refusal form

178. What fluid resuscitation is indicated for a patient with heat exhaustion?

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179. An adult was working outdoors in hot (95° F) temperatures. The patient is extremely disoriented and very warm to the touch. VS: BP 86/50; P 118; R 20; SpO<sub>2</sub> 96%; T 106° F. Which of these is indicated?

- A. IV NS 30 mL/kg rapid IV bolus
- B. Massage patient's large muscles
- C. Transport with head of stretcher elevated 45°
- D. Cold packs to cheeks, palms, & soles of feet

180. A conscious adult is c/o double vision and a severe headache of non-traumatic origin. VS: BP 250/140; P 80; R 16; lungs clear. What interventions are indicated as part of IMC?

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181. During transport of the above patient, hypertension persists and the patient begins to complain of chest pain. What intervention is now indicated?

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182. List at least three factors that need to be assessed and documented to determine if a patient has decision-making capacity when a psychological emergency is suspected:

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183. Who must confirm the order for using restraints on a combative patient? \_\_\_\_\_

184. A young adult presents with agitation, paranoia, violent behavior and has two police officers trying to subdue him. Once in restraints he remains agitated and thrashing about. VS: BP 160/100; P 116; RR 24; T 102° F. Pupils are dilated; glucose 120. Wt: 200 lbs. Which of these is indicated?

- A. Midazolam up to 10 mg IVP, IN or IM
- B. Etomidate to rapidly induce unconsciousness
- C. Fentanyl to abate pain and reduce CNS irritability
- D. Tighten the stretcher straps to prevent patient injury

185. Under what circumstances should paramedics complete a Petition form?

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186. List at least 4 things that should be observed and documented during the secondary assessment of a patient who presents with seizure activity.

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187. What is the only type of seizure that should be treated with midazolam?

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188. What is the maximum scene time goal in minutes for patients with suspected stroke? \_\_\_\_\_

189. What assessment findings should be obtained as part of the Cincinnati Stroke Scale (CSS)?

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190. List three possible presentations of stroke other than those S&S included in the CSS.

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191. Why is the time of symptom onset so important for EMS to obtain and report in patients with suspected stroke?

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192. EMS is transporting an elderly adult with a positive stroke screen from a skilled nursing facility to a stroke center. No staff or family members are coming with the pt. What has been added to the SOPs to facilitate effective communication?
- A. Show the sending nurse how to Skype to the ED
  - B. Provide the sending facility with a returnable pager
  - C. Get a call-back phone number of a reliable historian
  - D. Have the SNF copy the chart notes from the past 24 hrs
193. An adult presents with a possible stroke. GCS: 15. VS: BP 180/96; P 72; ECG: AF; R 18; SpO<sub>2</sub> 93%; lungs are clear; glucose 120. The pt was last seen normal about 30 min ago. Which is indicated while on-scene?
- A. IV NS TKO
  - B. Oxygen to SpO<sub>2</sub> of 94%
  - C. Sit in semi-Fowler's position
  - D. Elevate patient's head on a pillow
194. An unconscious elderly adult is responsive to pain. The pt had slurred speech and a left sided motor deficit before losing consciousness. GCS 10 (2-3-5); lash reflex intact; BP 170/96; P 72; R 18. Lungs are clear. Glucose reading: 20. ETA to the nearest hospital is two minutes. What treatment is indicated?
- 
195. An elderly adult presents one day after being discharged from a hospital with pneumonia. The pt feels hot to the touch with a persistent productive cough of yellow-green sputum. VS: BP 80/50; P 114; ECG ST; R 28, SpO<sub>2</sub> 90%; EtCO<sub>2</sub> 25 with square waveform. The 12-L ECG shows no acute ischemic changes. Which of these is indicated first?
- A. CPAP at 8 cm PEEP
  - B. Dextrose 10% 25 gm IVPB
  - C. IV NS 30 mL/kg; vasopressors
  - D. Dopamine drip at 5 mcg/kg/min

### **TRAUMA SOPS**

196. At what point in the call are IVs to be started on trauma patients if scene time would be delayed due to attempts at vascular access?
- 
197. An unconscious adult presents following multi-system blunt trauma from a MVC with chest and abdominal injuries and a suspected fractured femur. VS: BP 78/56; HR 120; RR 28; SpO<sub>2</sub> 90%; EtCO<sub>2</sub> 20. Which of these is indicated?
- A. Warm IV NS wide open up to 1 L
  - B. Two large bore IVs on pressure infusers run WO
  - C. IV NS TKO due to need for permissive hypotension
  - D. Cold NS at 30 mL/kg (max 2 L) as rapidly as possible
198. What is the maximum SBP target in mmHg when providing IV fluid challenges to a pt with blunt torso trauma?
- A. 70
  - B. 80
  - C. 90
  - D. 100

199. What is the maximum SBP target in mmHg when providing IV fluid challenges to a pt with penetrating torso trauma?
- A. 60
  - B. 70
  - C. 80
  - D. Above 90
200. What is the *first* step in hemorrhage control for brisk venous bleeding from a deep laceration to the leg?
- A. Apply a tourniquet
  - B. Apply a cold pack over the site
  - C. Firm pressure over pressure points
  - D. Direct pressure over QuikClot dressing
201. Which is appropriate regarding tourniquet use to stop hemorrhage in a mangled limb?
- A. Apply a CAT tourniquet 2"-3" proximal to the wound
  - B. Apply just enough pressure to maintain weak distal pulses
  - C. Release tourniquet every 5 min to prolong ischemic time in the limb
  - D. Apply a tourniquet only as a last resort after pressure points & elevation fail to stop bleeding
202. An adult presents with a fractured pelvis after being struck by a car. Skin is pale, cool, and diaphoretic. VS: BP 86/64; P 112; R 24; lungs are clear. The pt is anxious and in severe pain. Which of these is indicated?
- A. Fentanyl 200 mcg IN
  - B. Dopamine drip at 5 mcg/kg/min
  - C. IV of NS run wide open up to 2 L
  - D. Wrap pelvis w/ upside down KED or sheet
203. In order to take a patient with hemodynamic instability from trauma to a Level I Trauma Center, the total transport time may not exceed \_\_\_\_\_ minutes.
204. An adult has a GSW to the head from a small caliber weapon. Bleeding is controlled from the wound. The patient is awake and talking to EMS but does not remember what happened. They stick out their tongue when asked to do so. Pulse is a normal rate at the radials. Does this patient meet the criteria for transport to a Level I trauma center?
- A. Yes
  - B. No
205. A conscious & alert restrained driver presents following a high speed frontal impact crash with over 2 ft of metal deformity. The airbag deployed and the pt has superficial abrasions to the hand and wrists and is c/o some neck stiffness but no pain. Lung sounds are clear bilaterally, radial pulses are full with a generally normal rate, and the pt moves all four extremities. Where should this patient be transported?
- A. Nearest Level I trauma center
  - B. Nearest trauma center; level I or II
  - C. Nearest hospital; pt does not require a trauma center
206. A conscious adult presents with partial and full thickness burns over 60% of their body from a house fire. There is no other mechanism of trauma. The airway is presently intact with no apparent burns or dyspnea; RR rapid; SpO<sub>2</sub> 96%. Pain is rated 10/10; radial pulse is weak and rapid. Where should this patient be transported?
- A. Nearest Level I trauma center
  - B. Nearest trauma center; level I or II
  - C. Consider triage to nearest burn center
  - D. Nearest hospital for initial stabilization

207. An adult presents in traumatic arrest following blunt trauma sustained in an MVC. The patient has obvious chest and head injuries but does not meet the criteria for triple zero. After initiating CPR, there is resistance to ventilating with a BVM and breath sounds are absent on the left and present on the right. The nearest hospital can be reached within 10 minutes. Which of these is indicated?
- A. Transport immediately for care at the hospital
  - B. Pt is nonsalvageable; terminate all resuscitation
  - C. Perform bilateral needle pleural decompressions
  - D. Perform needle pleural decompression on L chest
208. If taser probes are embedded in the in the pt's face, neck, groin, or over the spinal column, what EMS action is indicated?
- A. DO NOT remove
  - B. Seek OLMC order to remove the probes
  - C. Ask the pt to remove them and give directly to police
  - D. Ask police to remove them and place directly into a sharps container

### **BURNS**

209. How should the airway be secured for a patient with an inhalation burn in severe respiratory distress and with progressive compromise of the airway?
- 
210. An adult has partial and full thickness burns of the abdomen, perineum and the entire anterior surface of both legs. Using the Rule of nines, what percentage of the total body surface area has been burned?
- A. 55%
  - B. 37%
  - C. 28%
  - D. 19%
211. Which of these is indicated to treat an acute thermal burn of < 9% TBSA?
- A. Cool with water or NS for ten minutes
  - B. Cover with ice for 1 minute to rapidly cool
  - C. Apply Neosporin ointment to promote healing
  - D. Cut off the tops of all blisters to reduce chance of infection
212. A conscious and agitated adult presents with partial thickness thermal burns over 60% of TBSA. VS: BP 110/84; P 130; R 32; SpO<sub>2</sub> 96%. Airway is currently patent. In addition to 15 L O<sub>2</sub>/NRM and pain management, what care is indicated to treat the burn wound?
- 
- How much IV solution is indicated for the above patient?
- 
213. Which is appropriate prehospital treatment for wet chemical burns?
- A. Cool with iced saline soaks
  - B. Absorb the chemicals using a towel and cover with wet dressings
  - C. Apply an antidote to neutralize the chemical, then apply dry, sterile dressings
  - D. Remove all clothing and jewelry; flush the area with copious amounts of saline/water
214. An adult has had hydrofluoric acid splashed on his hands. He is in extreme pain. What intervention is indicated if available on scene?
- A. Magnesium soaked gauze applied to the burn
  - B. Calcium gluconate 2.5% gel massaged into burns
  - C. Calcium chloride injected into burn wound margins
  - D. Bicarbonate soaked dressings applied to the burn

215. Which of these is true relative to electrical burns?
- A. The patient's ECG should be monitored for dysrhythmias
  - B. Entry and exit wounds predict the full severity of internal damage
  - C. The patient will most likely be found hyperventilating due to current exposure
  - D. Entry and exit wounds are generally superficial partial thickness and will be very painful

### **CHEST TRAUMA**

216. What size needle should be used to perform a needle pleural decompression? \_\_\_\_\_
217. What should be used to convert an open to a closed pneumothorax?  
\_\_\_\_\_
218. A driver was injured in a lateral impact crash. The patient answers questions appropriately and is c/o dyspnea. Lung sounds are equal bilaterally and an unstable rib segment moves paradoxically to the rest of the chest. Pulse is rapid at the radials; respirations are rapid and labored. RA SpO<sub>2</sub>: 85%. Which of these is indicated?
- A. C-PAP at 5 -10 cm PEEP
  - B. Fentanyl IVP and IVF challenges
  - C. Splint ribs with an ACE wrap around the chest
  - D. Position pt on uninjured side to facilitate ventilation
229. Which of these is indicated for a patient who presents with muffled heart tones, JVD, and a BP of 60/30 following a small penetrating chest wound to the left of the sternum?
- A. Pericardiocentesis
  - B. Dopamine drip at 10 mcg/kg/min
  - C. IV WO while enroute to achieve a SBP of 80
  - D. Withhold all IV fluids to prevent rapid exsanguination
220. A conscious & alert adult was kicked in the anterior chest by a horse and is c/o of severe midline chest pain (9/10). Ventilations are unlabored at a normal rate; breath sounds present and equal bilaterally; heart sounds clear. Radial and femoral pulses are equal, rapid and irregular; ECG ST w/ PVCs; SpO<sub>2</sub> 96%; jugular veins are flat. There is redness and bruising over the sternum with point tenderness to palpation but no crepitus. There is equal chest expansion and no paradoxical movements. What injury should be suspected?
- A. Flail sternum
  - B. Avulsed aorta
  - C. Cardiac tamponade
  - D. Blunt cardiac injury

### **EYE EMERGENCIES**

221. What topical anesthetic agent should be instilled into the eye to reduce local eye pain from a corneal abrasion or prior to chemical burn irrigation?  
\_\_\_\_\_
222. If a patient has a penetrating globe injury, with what should it be covered?  
\_\_\_\_\_

### **HEAD TRAUMA**

223. An adult sustained blunt trauma to the head in an MVC. GCS: eyes open to verbal stimuli; verbal response is confused; motor response localizes pain. Skin: WML. Pupils are midpoint and reactive to light. VS: BP 100/76; P 84; ECG SR; R 16; lungs clear; SpO<sub>2</sub> 96%. Which of these is indicated?
- A. Rapid transport with no IV needed
  - B. IV NS run TKO as SBP already exceeds targets
  - C. Dopamine drip at 5 mcg/kg/min to achieve SBP 150
  - D. NS IVF challenges in 200 mL increments to maintain SBP at least 110 (may need to be higher)

224. When establishing patient reliability for a neuro exam, what factors must be **present**?

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What factors must **NOT** be present?

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225. Which presentation reflects an increased ICP?

- A. GCS 6; oval pupils with hippus; BP 220/110, P 40
- B. GCS 15; asymmetric smile, arm drift on left, BP 160/90
- C. GCS 14, pupils bilaterally dilated and reactive to light; ataxia, slurred speech
- D. GCS 4; small pupils bilaterally that react to light, BP 90/60; P 70; R 6; snoring ventilations

226. An adult has a closed head injury and presents with a GCS of 5 (1, 1, 3). Airway is patent. VS: BP 210/110; P 48; R 12 and irregular; SpO<sub>2</sub> 96%; capnography 45. Pupils are unequal (L>R); L is nonreactive. Which of these is indicated?

- A. Intubate using DAI
- B. Elevate head of stretcher 45°
- C. Midazolam IVP to prevent seizures
- D. Seek OLMC order to hyperventilate to capnography of 30-35

227. Is atropine indicated for the bradycardia that accompanies a spike in ICP?           YES / NO          

### **SPINE TRAUMA**

228. For pts found ambulatory at the scene, and for those who must be transported for a protracted time, what is the standard of care for selective spine immobilization during transport after manual stabilization of the head and neck in an eyes forward position, application of an appropriately sized rigid cervical collar (unless contraindicated); and axial alignment of the head and torso?

- A. All must be secured to a padded full spine board or rigid scoop stretcher using a device or towel rolls to limit lateral head movement
- B. Securing the patient to a stretcher without a long backboard is acceptable

229. An adult presents with paralysis of all four extremities following a fall from a roof. His head is slightly cocked to the left and he cannot move it back to midline. Airway is patent. Skin is warm, flushed, and dry from the shoulders down. VS: BP 80/54; P 48; R 12; SpO<sub>2</sub> 97%; capnography 38 w/ square waveform; GCS 15; wt: 180 lbs. Which of these is indicated first?

- A. Intubate to take over ventilations
- B. IV NS to achieve SBP of 90 (MAP ≥ 65)
- C. Apply slight traction to neck to realign head
- D. Place on scoop stretcher w/o securing head and neck to prevent further injury

230. If the patient's hemodynamic status remains unchanged after the above intervention, what is indicated next?

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231. If the above intervention does not achieve a SBP ≥ 90, what should be given next?

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232. If a patient is wearing a form-fitting helmet and the airway can be obtained by removing the faceguard, should the helmet be left in place or removed prior to transport?

- A. Left in place
- B. Removed

**MUSCULO-SKELETAL Trauma**

233. An adult with an angulated closed left humerus fracture is writhing in pain rated as 10/10. The pt is hemodynamically stable, is on no meds and denies allergies. What is indicated **first** for pain management?

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234. The above patient continues to resist efforts to place him on a backboard. What can be given to help reduce the muscle spasm?

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235. Name the replantation center in Region 9 where patients with amputations above the wrist or ankle should be transported:

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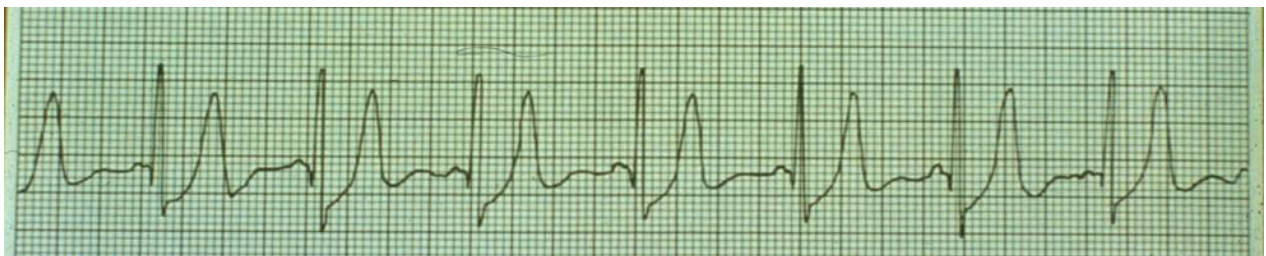
Which amputations will ABMC accept? (See System memo #348)

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236. How should the 1<sup>st</sup> IV be run on a patient who has had compression of a muscle mass for 4 hours or more prior to compression release?

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237. An adult's legs, abdomen and chest have been compressed in a trench cave-in for 6 hours. O<sub>2</sub> at 15 L/NRM, ECG monitor and a large bore IV NS were placed prior to releasing the patient. After release, and opening the NS to WO, the ECG transitioned to the strip below. VS: WNL. Which of these is indicated next?



- A. Glucagon 1 mg IVP
- B. Lidocaine 1 mg/kg IVP
- C. Dextrose 10% 25 gm IVPB
- D. Sodium bicarbonate 50 mEq slow IVP

238. How should a limb be positioned if compartment syndrome is suspected? Elevated / Below the heart

239. What intervention is indicated for a conscious adult who has been rescued from an entrapment in an upright position within a safety harness without any movement for a long period of time?

- A. Position sitting up with legs bent at hips and knees for at least 30 min
- B. Place supine with legs extended in Trendelenburg's position for 15 min
- C. Massage cramped muscles to release toxins and run IV NS WO up to 2 L
- D. Encourage pt to walk slowly around ambulance to wash potassium out of muscles

**MULTIPLE PATIENT INCIDENTS**

240. When does a small scale multiple patient incident exist?

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**CHEMICAL AGENTS**

250. How much atropine and 2 PAM should be given to an adult with suspected Sarin gas exposure that presents with coma, cyanosis, and seizures?
- 

**BIOLOGIC AGENTS**

251. If a patient is coughing after exposure to a biological agent, what type of mask should be worn by rescuers?
- 

**ABUSE/NEGLECT: DOMESTIC, SEXUAL, ELDER**

252. By State law, what is a paramedic mandated to give suspected adult victims of abuse?
- 

253. What number should EMS personnel call if they suspect an elderly patient has been abused?
- 

**TRAUMA IN PREGNANCY**

254. In what position should a pregnant patient with a gestational age > 20 weeks be transported?
- 

**OBSTETRICAL EMERGENCIES**

255. A G4; P3 pregnant pt presents in active labor with strong regular contractions 3 min apart. The BOW has broken. There is no crowning or involuntary pushing. Prenatal care up to this point has not revealed any problems with the pregnancy. Her expected hospital of delivery is 20 miles outside of the EMS agency's transport zone. Which of these is indicated?
- A. Stay on scene to do the delivery
  - B. Transport to the nearest hospital
  - C. Transport to the nearest hospital with an OB unit
  - D. Give pt the option of having her husband drive her to the hospital as delivery is not imminent
256. In what position should a laboring woman be placed for a prehospital delivery in the NWC EMSS?
- A. In a squatting position over a toilet
  - B. Sitting straight up on a chair with full back support
  - C. Flat on her back with her knees bent and buttocks elevated
  - D. Semi-sitting (head up 30°) with knees bent or side lying on a firm surface
257. How should a paramedic facilitate delivery of the head in a normal vertex presentation?
- A. Use Magill forceps to apply traction and facilitate delivery.
  - B. Perform a small perineal nick with the sterile scalpel to open the vaginal inlet.
  - C. Accelerate the rate of descent by having the mother push hard with each contraction.
  - D. Place one palm over the occiput and apply pressure to the perineum with the other hand.
258. What intervention is indicated first after the head delivers if there is no evidence of meconium in the amniotic fluid during in a normal vertex delivery?
- A. Feel around the infant's neck for a nuchal cord
  - B. Suction the nose and mouth with a bulb syringe
  - C. Rotate the head so the infant is facing downwards
  - D. Gently pull the head upwards to deliver the posterior shoulder

259. What maneuver should be performed to deliver the anterior shoulder?
- A. Rotate the infant so it faces downward.
  - B. Have the mother pant while pulling on the head.
  - C. After it passively turns to one side, gently guide the head downwards
  - D. Twist the infant in a spiral to ease passage through the pelvic inlet.
260. Which of these is appropriate to facilitate delivery if shoulder dystocia occurs?
- A. Grasp head and pull gently
  - B. Instruct mom to pant during contractions
  - C. Flex mom's knees alongside her abdomen
  - D. Insert gloved fingers and attempt to disimpact the shoulders
261. A newborn is assessed at 1 minute and is found to have a pink torso with dusky fingers and toes, HR > 100; strong cry with RR 40; vigorous movement of the arms and legs and she sneezes when a bulb syringe is placed in her nostrils. What is the APGAR score?
- 
- 
262. If the baby's head does not deliver within 30 sec after the shoulders in a breach presentation, what action is indicated?
- 
- 
263. What interventions are indicated for a prolapsed cord?
- 
- 
- 
264. What intervention is indicated if a woman experiences a uterine inversion immediately after delivery?
- 
- 
265. A newborn has a one-minute APGAR score of 4; RR 12; HR 70. He is dusky and has weak reflexes. After drying, warming, stimulating, and suctioning, what should a paramedic do next?
- A. Begin chest compressions at 120/min
  - B. Gain vascular access; give NS 10 mL/kg
  - C. Ventilate at 40-60/neonatal BVM & room air
  - D. Intubate and instill epinephrine 1:10,000 0.02 mg/kg ET
266. What is the pulse ox target following delivery of a newborn at 1 minute?
- A. 60%-65%
  - B. 65%-70%
  - C. 75%-80%
  - D. 85%-95%
267. If ventilations have been assisted in a distressed newborn for 30 sec and the HR remains  $\leq 60$ , what intervention is indicated next?
- 
- 
268. What is the epinephrine dose for a 3 kg newborn with severe bradycardia? \_\_\_\_\_

269. What is the minimum threshold for neonatal hypoglycemia in mg/dL?

- A. 60
- B. 50
- C. 30
- D. 20

270. Which of these is indicated by SOP for a patient experiencing a miscarriage?

- A. Vaginal packing to control bleeding
- B. Dopamine drip titrated to maintain BP
- C. Magnesium sulfate 2 Gm IV over 5 min.
- D. If tissue is passed, transport with the patient

271. Which of these is a clinical presentation of abruptio placenta?

- A. Painless, bright red vaginal bleeding
- B. Sustained uterine contractions & pain
- C. Placenta protruding through the cervix
- D. First trimester bleeding w/ midline uterine cramping

272. List three signs or symptoms of pre-eclampsia.

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273. What drug is indicated for pre-eclampsia? \_\_\_\_\_

### **PEDIATRIC SOPs**

274. The pediatric protocols should be used for all children \_\_\_\_\_ years or younger.

275. Which of these are components of the Pediatric Assessment Triangle?

- A. Heart rate, respiratory rate, blood pressure
- B. Appearance, work of breathing, circulation to skin
- C. Heart rate, respiratory rate, Glasgow Coma Score
- D. Vital signs, Glasgow Coma Score, Revised Trauma Score

276. If providing rescue breathing without chest compressions, how often should a breath be given to a child?

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277. What is the compression depth when doing CPR on an 8-year-old child? \_\_\_\_\_

278. A 20 ml/kg IV NS fluid volume bolus in children may be given up to \_\_\_\_\_ times.

279. Which of these is a sign of severe cardio-respiratory compromise potentially requiring CV support in children younger than 6 years of age?

- A. RR of 25-30
- B. HR of 100 - 120
- C. Capillary refill 1 second
- D. SBP < 70+ 2x the child's age in years

280. Which is appropriate when caring for children in pain?

- A. Assume that all crying children would rate their pain as 10
- B. Transport rapidly for pain medication titration at the hospital
- C. Use the Wong-Baker faces or FLACC scale to assess pain severity
- D. Ask the parent to guess the degree of pain based on the child's appearance

281. A, 8 y/o has an obvious deformity of right forearm following a fall Wt: 75 lbs. VS: BP 106/74; P 96; R 20; skin color normal, warm & dry. GCS 15. Pain rated 10/10. Denies PMH or allergies. He strongly objects to any needles. Parents consent to care. Which of these should be given?
- A. Fentanyl 30 mcg IN
  - B. Fentanyl 15 mcg IM
  - C. IV NS TKO; Fentanyl 15 mcg IVP
  - D. IV NS 20 mL/kg; Fentanyl 30 mcg IVP
282. A 5 y/o presents with a T 101°F and earache of < 24 hrs. The child is well hydrated, has been eating normally and responds appropriately to questions. VS WNL for age except for temp. The parents just wanted someone to listen to the breath sounds, which are clear bilaterally. They are now refusing transport. Which of these is indicated?
- A. Have parents execute a refusal form and call OLMC from scene
  - B. Have parents execute a refusal form; no OLMC needed due to BLS refusal
  - C. Take the child under protective custody and transport against parent's wishes
283. A 9 y/o child presents after rapidly losing consciousness following a severe headache. The pt's airway is filled with foamy secretions and the child does not respond to pain. After a jaw thrust maneuver and inserting an OPA, the airway remains impaired. Which of these is indicated?
- A. Intubate child per SOP based on a persistently impaired airway
  - B. Consider need for intubation: Contact OLMC for authorization
  - C. Continue efforts to suction and assist ventilations with peds BVM into hospital
284. A six year old who weighs 40 lbs requires DAI for a severe asthma attack? What premed and specific dose do they require before sedation?

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What is the dose of midazolam that should be given to a child when used for DAI sedation in children?

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Are children sedated with etomidate per SOP prior to DAI?      [ ] Yes      [ ] No

285. What actions are recommended if EMS personnel are presented with a baby in cardiac arrest from a suspected SIDS death?

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286. What is the pediatric dose of diphenhydramine when given to a child with an allergic reaction?

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287. What is the pediatric dose and route of epinephrine to give to a child with a severe asthma attack who weighs 35 lbs?

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288. What is the pediatric dose of magnesium for a child who weights 48 pounds?

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289. What is the first treatment to be given to a stable pediatric patient with croup?

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290. What is the first intervention indicated per SOP for a child with epiglottitis and moderate to severe cardiorespiratory compromise?
- A. Perform a cricothyrotomy
  - B. Intubate and ventilate with O<sub>2</sub> 15 L
  - C. Epinephrine (1:1000) 3 mL per neb
  - D. Epinephrine (1:1000) 0.01 mg/kg IM
291. What is the first drug, concentration and dose to give to a pediatric patient with unstable bradycardia with a pulse who is in moderate to severe distress and weighs 66 pounds?
- 
292. What is the pediatric dose of adenosine? \_\_\_\_\_
293. What is the pediatric dose of amiodarone for monomorphic VT and VF?
- 
294. What is the age range for using a peds attenuator system when applying an AED?
- 
295. What is the dose for epinephrine when treating a pediatric patient in V-fib or asystole?  
\_\_\_\_\_ (concentration) \_\_\_\_\_ mg/kg IV/IO
296. A 5 y/o with type 1 DM presents unconscious with a bG of 30. The child weighs 44 lbs (20 kg). How much D10% should be given?
- A. 5 grams (50 mL)
  - B. 25 grams (250 mL)
  - C. 12.5 grams (125 mL)
  - D. 0.5 grams/kg - 10 g (100 mL)
297. What is the peds dose for naloxone?
- 
- 
298. How should a child with febrile seizures be cooled?
- 
299. What dose of midazolam should be given intra-nasally (IN) to a 5 y/o (20 kg) child who is experiencing a generalized tonic-clonic seizure?
- A. 0.01 mg/kg (0.2 mg)
  - B. 0.2 mg/kg (4 mg)
  - C. 1 mg/kg (20 mg)
  - D. 2 mg/kg (40 mg)
300. What number should be called if EMS personnel suspect that a child has been abused?
- 

SOP/Self-assessment KEY 6-1-14

Reference:

<http://rjjaramillo.wordpress.com/2013/04/26/capnography/>