Northwest Community EMS System 2016 SOP Self-Assessment

Name (Print):	Evaluator signature:
EMS Agency Date:	Score: [ ] Acceptable [ ] Not acceptable

Complete; discuss with your Provider EMS Coordinator; & **BRING WITH YOU** on 1st day of System Entry written testing

This document is designed to highlight important aspects of the December 1, 2016 NWC EMSS SOPs and System procedures found in the Procedure manual. Entry applicants are encouraged to use the SOP Changes and Rationale document & slide deck (found on System website: www.nwcemss.org under 11/16 CE) as additional references.

INTRODUCTION; GENERAL PATIENT ASSESSMENT and INITIAL MEDICAL CARE

1. What does the notation *time sensitive* mean in the SOPs?

   A. Load and go with no scene interventions
   B. Drive as quickly as possible to the nearest hospital
   C. Critical acuity, need for rapid interventions & short scene times
   D. Abort all ALS care; provide BLS care only in favor of rapid transport

2. What is meant by an Emergent level of patient acuity?

3. Which of these may be transported using lights and sirens without on-line medical control contact?

   A. BLS patient with abdominal pain that might deteriorate
   B. Stable adult with chest pain with ST elevation in Leads II, III, and aVF
   C. Patient with a lower acuity allergic reaction who has received diphenhydramine PO
   D. Scheduled transfer of a stable nursing home patient who requires diagnostic testing

4. What level of care is each of these in the 2016 SOPs? Place an X in the appropriate column.

Intervention/Skill	ALS	BLS
Capnography monitoring		
CPAP		
12 L ECG acquisition		
ECG rhythm interpretation		
Vascular access		
Monitoring NG tube already inserted		
Diphenhydramine PO		
Epinephrine 1mg/1mL & naloxone IM		

5. 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?

   A. 12 L ECG in an adult c/o chest pain
   B. IV access in patient with suspected stroke
   C. IV access following penetrating chest trauma
   D. 2nd dose of bronchodilator for a severe asthma attack

6. List one indication for applying a pulse oximetry monitor:

   _____

7. List at least 3 indications for applying a capnography monitor:

_____

_____

_____

8. What is the target SpO_2 in patients with COPD?

A. 88%
B. 92%
C. 94%
D. 96%

9. Which of these is NOT harmed by hyperoxia?

A. Post-cardiac arrest
B. Uncomplicated Acute MI
C. Newborn needing resuscitation
D. Submersion incident/near drowning

10. List six indications, based on chief complaint or PMI, for obtaining a 12-L ECG

_____

_____

_____

11. Which of these is a candidate for an intraosseous line?

A. Elderly pt w/ fragile veins who fell and is c/o severe pain
B. Child whose only peripheral vascular site is an antecubital vein
C. Pt in extremis w/ circulatory collapse needing immediate administration of IV meds
D. 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?

A. NS 200 mL
B. Lidocaine 50 mg
C. Fentanyl 90 mcg
D. Sodium bicarbonate 50 mEq

13. How must the 1st BP be obtained on all patients?

A. Manually
B. Mechanically using the automated cuff on the cardiac monitor

14. 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?

_____

15. What is a patient-centered approach to pain management?

16. What pain scale should be used for each of these?

Decisional adult who can communicate effectively: _____

People with dementia that cannot verbalize _____

17. 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; SpO2 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

18. 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_2 98%; wt 250 lbs. The patient remains in severe pain after the first dose of fentanyl. What is max 2nd dose that he can receive by SOP without OLMC?

A. 50 mcg
B. 100 mcg
C. 150 mcg
D. 200 mcg

19. 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

20. 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

21. 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

22. 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

23. What is the max total dose of ondansetron that can be given by paramedics? _____

24. How should IVP ondansetron be administered?

A. Slow (over no less than 30 sec) B. As rapidly as possible in a proximal vein

25. 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, and there are no standards of receiving hospital based on need for specialty services that would be violated, what must be done?

_____

RADIO REPORT/COMMUNICATIONS POLICY

26. 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

27. 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

28. 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 System Policy D5)

29. True or false. A patient with decision-making capacity may not change his/her POLST form choices. Once completed, they are locked in for at least one year.

A. True
B. False

30. An unconscious adult is found pulseless and nonbreathing in bed. An IDPH 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?

31. An adult presents with severe dyspnea and increased work of breathing. The pt has a history of left heart failure & denies history of asthma or COPD. VS: BP 180/96; P 100; R 28 and labored; SpO_2 74%; and $ETCO_2$ 45 with a square waveform. Lung sounds: bilateral wheezes. The patient produces an IDPH POLST form with DNR marked in Box A and Selective 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 & ipratropium via in-line nebulizer, and transport
C. Provide comfort care only, have the patient sign a refusal form, do not transport

32. What action is needed if EMS is presented with an IDPH 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

33. An unconscious elderly patient has agonal respirations and is found pulseless in idioventricular rhythm. A daughter presents you with a valid Ill 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.

34. Under what circumstances can a person with Power of Attorney for healthcare rescind a POLST 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

35. 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

36. Which of these is indicated in an elderly patient who is chronically hypercarbic and prone to ventilatory failure due to ↓ lung compliance, inability to breathe deeply, and ↑ WOB?

A. Short bursts of hyperventilation
B. CPAP or ventilatory assist w/ BVM
C. Aggressive and rapid reversal of hypercarbia
D. Negative pressure ventilation optimizing venous return to the heart

37. 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?

A. Irbesartan (Avapro), Cozaar, Benicar
B. Atenolol, Zebeta, Coreg, Lopressor/Toprol
C. Bumex, Diazide, Lasix, hydrochlorothiazide
D. Eliquis, Plavix, Pradaxa, Xarelto, Coumadin

38. 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?"

A. Execute a BLS refusal; no OLMC is needed
B. Execute an invallid assist, no OLMC is needed
C. Attempt to convince pt to be tranported; execute a BLS refusal, call OLMC from scene
D. Inform pt that they cannot refuse due to their age and must be transported for their safety

39. A 78 y/o presents with a sudden onset of profound weakness, fatigue, and dyspnea following a syncopal episode. The patient 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_2 97% with no orthostatic changes; glucose 120. Skin is pale and moist; lung sounds are clear bilaterally. Which of these is indicated next?

A. NTG & ASA
B. 12 lead ECG
C. IVF challenge 200 mL NS
D. BLS transport to the hospital

40. What is the preferred way to move an elderly patient with a possible hip fracture from the floor to the stretcher prior to applying selective spine motion restriction?

A. Use a 3 man carry
B. Use a scoop stretcher
C. Log roll onto a long back board
D. Have patient lift their buttocks so the spine board can be gently slid underneath them

EXTREMELY OBESE PATIENTS

41. 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_2 reading of 86%?

A. Lower the head of the stretcher & attempt DAI
B. Apply CPAP w/ PEEP 5 – 10 cm H_2O; assist w/ BVM
C. Assist ventilations with V_T 2 – 4 mL/kg to prevent air trapping in the lungs
D. Start an albuterol treatment as abnormal breath sounds will be impossible to hear

42. Which of these should be done if an extremely obese patient experiences a respiratory arrest?

A. Insert an alternate airway rather than attempting a difficult intubation
B. Go directly to a cricothyrotomy as this will be the easiest route to secure
C. Lay the patient flat, hyperextend the neck & insert 2 nasopharyngeal & an oral airway
D. Use an oral rather than a nasal intubation approach as the nasal passages will be occluded

43. Which of these should be considered when assessing an extremely obese patient?

A. Expect SpO_2 readings of 88% – 92% on 6L oxygen/min by mask
B. They frequently hyperventilate, so a capnography reading of 30 is normal
C. Breath sounds are easier to assess as their lungs hold much more capacity
D. Peripheral pulse ox sensors are more reliable than central sensors due to fat distribution

44. An unconscious adult weighs 400 lbs. The patient passed out following a new vigorous exercise regimen to lose weight. VS: BP 100/66; P 110; ECG ST; R 20; SpO_2 94%; Glucose 30; skin extremely diaphoretic. No peripheral veins are palpable. Which of these is the best option for care?

A. Adult IO needle to distal femur
B. 45 mm IO needle to proximal humerus
C. Abort IV attempts and transport immediately
D. Longest 20 g peripheral IV catheter to antecubital site

45. Which is true regarding the assessment or management of an extremely obese patient?

A. Supine patients will have decreased range of motion
B. Motor strength is greater due to enlarged muscle mass
C. Pain perception is the most sensitive symptom of pathology
D. Symmetry is impossible to assess due to body surface distortion from uneven fat distribution

46. Which is true regarding the assessment or management of an extremely obese patient?

A. Abdominal palpation is highly accurate for detecting intraperitoneal irritation
B. OLMC should be contacted for weight-adjusted drug doses to avoid sub-therapeutic levels
C. To maintain privacy, defer inspection of the skin under the pannus until pt is admitted to the ED
D. All stretchers support bariatric pts if 2 long back boards are used side by side to extend the width

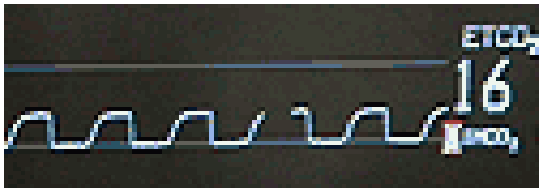
47. What is the recommend approach for assessing lung sounds in an extremely obese patient?

A. Listen over the back first for early detection of crackles
B. Palpate for tactile fremitus rather than trying to hear lung sounds
C. Listen over the anterior apices as that is the only areas that will have discernible sounds
D. Ask the pt to breathe deeply through their mouth and listen anteriorly just inferior to the clavicles

48. If a standard size BP cuff does not fit around the upper arm of an extremely obese patient, which of these is an acceptable adaptation for assessing the BP?

A. Assume a strong radial pulse implies a SBP of >100 mmHg
B. Apply a central sensor and assume an SpO2 >94% implies an OK SBP
C. Apply the standard size cuff to the forearm and listen over the radial artery
D. Assume that no change in pulse quality when pt changes from supine to sitting implies an OK MAP

49. 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_2 doesn't register and you see the capnogram below. Which of these is likely?



A. Severe atelectasis
B. Pulmonary embolus
C. Acute pulmonary edema
D. Spontaneous pneumothorax

50. An extremely obese adult presents with lightheadedness and abdominal pain. The patient 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 compliance with follow up instructions

AIRWAY OBSTRUCTION

51. 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 BLS intervention is indicated next?

A. Begin CPR
B. 5 abdominal thrusts
C. Surgical cricothyrotomy
D. Visualize the airway with laryngoscope and attempt to clear using forceps and/or suction

52. As soon as equipment is available; what ALS intervention is required next?

_____

Drug assisted Intubation (advanced airways)

Refer to procedure manual advanced airway pages.

53. An adult has sustained a closed head injury to the anterior skull over the forehead and bridge of the nose. 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 intubate twice but has been unsuccessful. Which of these is indicated next?

A. King LTS-D airway and ventilate with 15 L O_2/BVM
B. Surgical cricothyrotomy and give 15L O_2/ peds BVM
C. Change blade type and length; & attempt to intubate one more time
D. Insert 2 nasopharyngeal airways and transport immediately with O_2 15 L/BVM

54. An adult presents with a severe asthma attack. The patient is exhausted with shallow RR of 40 and increased work of breathing. The skin is dusky, SpO_2 is 78% and capnography is 65. Which airway intervention is indicated for this patient?

A. Drug-assisted intubation
B. Anterior or Kentucky intubation
C. Insertion of a KING LTS-D airway
D. Bougie assisted intubation with in-line stabilization

55. An unconscious adult presents following an MVC. There is no spontaneous movement, GCS is 3; gag reflex is absent; R 4 and shallow with periods of apnea. There is thin, bloody fluid draining from his nose. Assisted ventilations are unsuccessful after manual airway maneuvers and insertion of an OPA. Which of these is indicated next for this patient?

A. Nasotracheal intubation
B. Surgical cricothyrotomy
C. Drug-assisted intubation using sedatives
D. Orotracheal intubation with in-line stabilization

56. What anatomic structure should be palpated with the fingertips when performing digital intubation?

A. Epiglottis
B. Hyoid bone
C. Vocal cords
D. Tracheal rings

57. Which of these is an indication for performing anterior/inverse intubation?

A. Adult in cardiac arrest found on the floor
B. Elderly adult in pulmonary edema in ventilatory failure
C. Shot gun blast to the face with massive tissue disruption
D. Adult pinned in a car following a MVC in respiratory arrest

58. If a patient is breathing at a rate of ≥ 8 with adequate depth, 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

59. What is the purpose of using benzocaine spray prior to intubation?

A. Suppress the gag reflex
B. Paralyze the vocal cords
C. Dry oral and pharyngeal secretions
D. Shrink pharyngeal capillary beds to increase airway diameter

60. What is the correct dosing for benzocaine spray?

A. 1-2 second spray, 30 seconds apart X 2 to posterior pharynx
B. 5 second continuous spray to back of tongue and oropharynx
C. Liberally spray ET tube so drug is applied to tissues as tube is inserted
D. 1 spray up the nose and 1 to posterior pharynx to medicate all upper airway tissues

61. An unconscious adult with a GCS of 8 presents with possible cardiogenic shock. They have no known PMH and are unable to protect their airway. Gag reflex is absent. VS: BP 60/30; HR 110; R 8 and shallow with period of apnea; SpO_2 86%; $ETCO_2$ 26 with square waveform. Which of these is indicated first for this patient during DAI?

A. Ketamine
B. Etomidate
C. Midazolam
D. Benzocaine

62. Which of these is the dose for midazolam given post DAI, if the patient begins to fight the ETT as long as the SBP ≥ 90 (MAP ≥ 65)?

A. 10 mg IM; may repeat X 1
B. 5 mg slow IVP every 2 min up to 10 mg
C. 2 mg rapid IVP q. 30-60 sec up to 10 mg
D. 2 mg increments slow IVP prn up to 20 mg

63. What is the dose of etomidate in the NWC EMSS for DAI?

A. 0.5 mg/kg max 40 mg
B. 1 mg; may repeat X 3
C. 1.5 mg/kg; may repeat X 2
D. 5 mg; may repeat X 2

64. What are the two most common side effects of etomidate?

A. Hypotension and tachycardia
B. Dry mouth and facial flushing
C. Bronchoconstriction and itching
D. Myoclonus and pain at the injection site

65. 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

66. 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

67. Which of these is an anticipated side effect of ketamine?

A. Emergence reaction
B. Bronchoconstriction
C. Respiratory depression
D. Transient bradycardia and hypotension

68. Which of these is an approved initial adult dose of ketamine IVP for DAI 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

69. What is an advantage to bougie-assisted ETI?

A. Allows ETI without using a laryngoscope
B. Curved tip aids passage of ETT into glottic opening
C. Able to intubate despite inability to see any landmarks
D. PMs can blindly exchange a King LTSD for an ET tube

70. Which of these is an indication that a bougie is advancing into the trachea?

A. Patient begins coughing due to airway irritation
B. PM feels no resistance and device advances easily to 60 cm
C. Clicking/vibration sensation is felt as tip passes over tracheal rings

71. When advancing an ET tube over the bougie, what should be done when the tube reaches the intubator's fingers on the bougie?

A. Intubator should take over control of ET tube
B. Intubator should allow assistant to pass ET tube into trachea

72. How must tracheal ET tube placement be objectively confirmed (measured) in the NWC EMSS?

A. Aspiration of an EDD
B. Quantitative waveform capnography
C. Trending pulse oximetry values and pleth height
D. Watching the thorax rise and fall with ventilations

73. 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

74. 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

75. 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)

76. List two contraindications for King airway insertion

_____

77. 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

78. 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

79. 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.

80. 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

81. What does “bounce back” indicate when placing the King airway and what should be done next?

_____

82. 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

83. 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_2 94%; $EtCO_2$ 28 with a shark fin waveform; lung sounds: diffuse wheezing. Which of these is indicated first?

A. Diphenhydramine 1 mg/kg IM
B. Epinephrine 1mg/1mL 0.3 mg IM
C. Epinephrine 1mg/10mL 0.1 mg IVP
D. Albuterol & ipratropium via HHN

84. 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_2 98% on room air; $EtCO_2$ 38 with a square waveform, and lung sounds are clear. Which of these is indicated?

A. Epinephrine 1mg/1mLIM
B. Epinephrine 1mg/10mL IVP
C. Albuterol & ipratropium/HHN
D. Diphenhydramine PO

85. 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_2 82%; lung sounds are bilaterally diminished. IMC is NOT completed. Which of these should be given first?

A. Diphenhydramine 50 mg IM
B. Epinephrine 1mg/1mL 1 mg IM
C. Albuterol 2.5 mg via nebulizer
D. Epinephrine 1mg/1mL 0.5 mg IM

86. What drug (dose and route) should be given to the above patient as soon as vascular access is obtained?

_____to a total max dose (IM + IVP/IO) of _____

87. 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 1mg/1mL 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

88. Why are consecutive IV fluid challenges indicated for a patient in anaphylactic shock?

_____

89. Which of these is a precaution to giving epinephrine to a patient with a moderate allergic reaction?

A. Peanut allergy
B. Hypertensive BP
C. Pt is taking ACE inhibitors
D. HR that is borderline bradycardic

90. 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?

A. Defer CPR until an advanced airway is placed and ventilations are supported
B. Delay defibrillation until epinephrine and diphenhydramine have been given
C. Defibrillate at the highest joule setting for the monitor-defibrillator used
D. Start 2 IVs; infuse NS as rapidly as possible (up to 8 L)

91. What concentration, dose, route, and timing of epinephrine is indicated for an adult in anaphylactic shock who goes into cardiac arrest?

A. 1:000 0.3 mg IM every 2 minutes
B. 1:000 1 mg IVP every 3 to 5 minutes
C. 1mg/10mL 1 mg IVP/IO every 2 minutes
D. 1mg/10mL 1 mg IVP/IO every 3 to 5 minutes

Asthma/COPD

92. If an adult with a severe asthma attack requires assisted ventilations, at what rate per minute should the patient be ventilated?

A. 6 -8
B. 10 -12
C. 12 - 14
D. 16 – 20

93. 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_2 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*?

A. Titrate the PEEP downward to 5 cm
B. Supplement the CPAP O_2 with a NC
C. Remove the CPAP mask and intubate
D. Prepare a dopamine drip to support the BP

94. Which of these is indicated if a patient with a chronic hypercarbic state (COPD) presents with acute respiratory failure?

A. Give 1 amp of bicarb to reverse the acidosis
B. Slowly reduce the $EtCO_2$ (not more than 5 mmHg/hr)
C. If intubated, hyperventilate to an $EtCO_2$ of 30-35 mmHg
D. Correct the acute resp. acidosis back to a normal $EtCO_2$ as quickly as possible

95. 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_2 84%) and capnography 66 with a shark fin waveform?

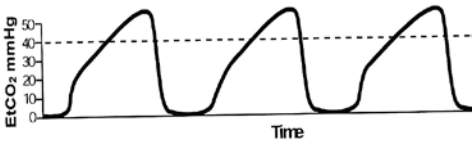
A. CPAP at 10 cm PEEP
B. Epinephrine 1mg/1mL 0.3 mg IM
C. 15 L O_2/NRM and prepare for DAI
D. Albuterol 2.5 mg & ipratropium 0.5 mg /HHN

96. Which of these should be given first to a patient with COPD in mild to moderate ventilatory distress with wheezing?

A. Magnesium IVP
B. Diphenhydramine
C. Epinephrine 1mg/1mL IM
D. Albuterol & ipratropium /HHN

97. Is ipratropium to be added to 2nd and subsequent albuterol treatments? Yes / No

98. Which of these is indicated FIRST if a hemodynamically stable patient with a history of asthma presents with orthopnea, good but labored ventilatory effort using accessory muscles, capnography 55 & waveform below, bilaterally diminished breath sounds, strong radial pulse and an SpO_2 of 91%?



A. Intubation and epinephrine 1mg/10mL 0.1 mg IVP
B. Intubation and inline albuterol & ipratropium per BVM
C. CPAP 5-10 cm PEEP+ epinephrine 1mg/1mL 0.3 mg IM
D. CPAP 10 cm PEEP and magnesium sulfate 2 gm slow IVP

99. What is the indication for giving magnesium sulfate to a patient with an asthma attack?

A. Severe distress unresponsive to epinephrine, albuterol & ipratropium
B. Moderate to severe respiratory distress with a history of beta blocker use
C. Moderate to severe distress with increasingly peaked T waves on the ECG

100. At what rate should magnesium sulfate be administered by IV bolus to an adult?

A. Rapid IV push
B. Over 2 minutes
C. Over 5 minutes
D. Over 10 minutes

101. What is the alternate IVPB dosing of magnesium sulfate?

_____

Acute coronary syndromes (ACS)

102. List 3 anginal equivalents that should cause EMS and ED personnel to suspect a possible ACS event:

_____,

_____

103. Which patient is most likely experiencing cardiac ischemia & should be treated per that SOP?

A. 25 y/o w/ PMH asthma c/o burning epigastric pain 8/10 after eating spicy food about 30 min ago.
B. 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.
C. 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.
D. 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.

104. 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_2 of 93%?

A. No oxygen is indicated
B. NC at 1-6 L/min to achieve $SpO_2 \geq 94\%$
C. NRM at 12-15 L/min to achieve SpO2 ≥ 98%
D. CPAP at 5 cm PEEP to achieve SpO2 ≥ 95%

105. 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_2 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

106. At what point in the call should a 12-lead ECG be obtained when caring for a patient with possible ACS?

_____

107. 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

108. If a patient presents with chest pain and the 1st prehospital 12-L ECG is normal, yet S&S persist, which of these is indicated per SOP?

A. Prep patient for administration of tPA
B. Assume it is GI-related and give ondansetron
C. Repeat 12 lead in 10 minutes; give tracings to ED
D. Hang a NTG drip and administer a rapidly acting beta blocker

109. What is the action of aspirin (ASA) when given to a patient with ACS?

_____

_____

110. List two contraindications to giving chewable ASA to a patient with possible ACS.

_____

_____

111. The patient is a reliable historian and is not hypoxic. As paramedics are preparing to give him ASA, he shows them a bottle of flavored 81 mg chewable aspirin and states that he took 4 of these when his chest pain started. Which of these is indicated per SOP?

A. Give the ASA anyway, just to make sure
B. Do not give the ASA as an adequate dose has been verified

112. What is the dose of chewable ASA for ACS?

_____

113. 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_2 98%; lungs are clear. Besides chewable ASA, which of these is indicated?

A. NTG X 3
B. O_2 2 L/NC
C. Fentanyl for pain
D. Midazolam for anxiety

114. 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

115. Is NTG indicated for a patient with ACS who took Levitra (vardenafil) 36 hours ago?

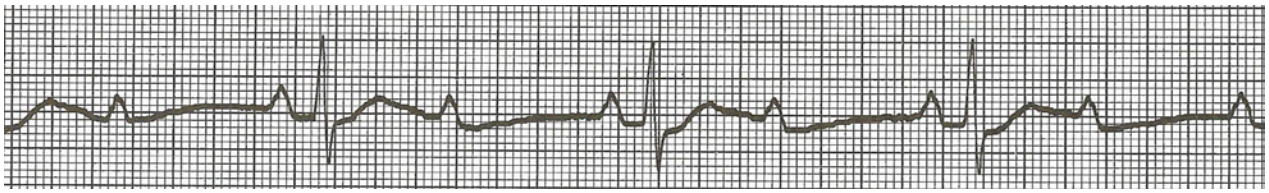
A. Yes B. No

116. How often and what total dose may NTG be given to an adult with ACS?_____

117. What is the major cardiovascular side effect of NTG? _____

Bradycardia w/ a pulse

118. 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_2 93%; lungs: clear; glucose: 120. Skin is warm and dry. He denies allergies, meds or a past medical history. Weight: 190 lbs.

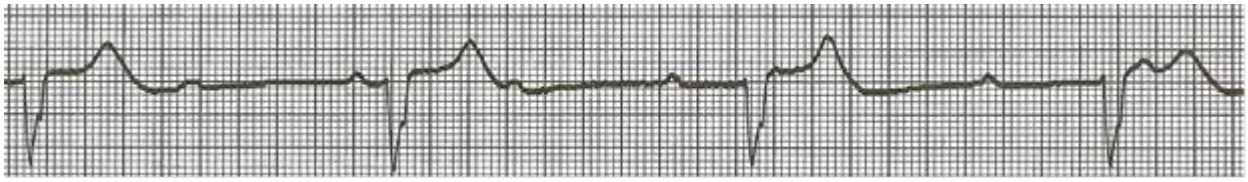


Is this patient a candidate for ASA?	[ ] Yes	[ ] No
Oxygen?	[ ] Yes	[ ] No
NTG?	[ ] Yes	[ ] No
Fentanyl?	[ ] Yes	[ ] No

119. What intervention is indicated next for the above patient?

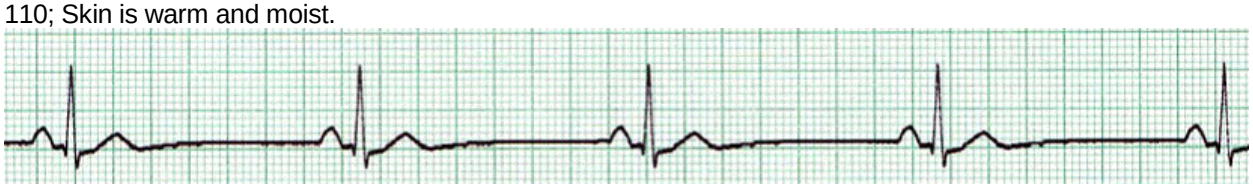
A. Atropine 0.5 mg IVP
B. Hang a norepinephrine drip
C. Begin external transcutaneous pacing at 60 BPM
D. Place TCP pads in anticipation of clinical deterioration

120. 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_2 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 norepinephrine drip
D. Atropine 0.5 mg rapid IVP

121. A 55 y/o experienced a syncopal episode at work. He is currently awake, lightheaded, weak, and denies chest pain. VS: BP: 86/44; P: 36; ECG below; 12 L shows no acute changes; R 18; SpO_2 94%; lungs: clear; glucose 110; Skin is warm and moist.



Which of these is indicated first?

A. NTG
B. Pacing
C. Atropine
D. Fentanyl

122. How should mechanical capture be confirmed when providing transcutaneous pacing?

_____

123. What is the maximum mA at which pacing should be attempted? _____

124. Is a hypotensive patient with sinus bradycardia who takes beta blockers a candidate for atropine, norepinephrine, and/or pacing prior to the administration of glucagon? A. Yes B. No

125. What is the max dose of glucagon when used for severe bradycardia and hypotension in the above patient?

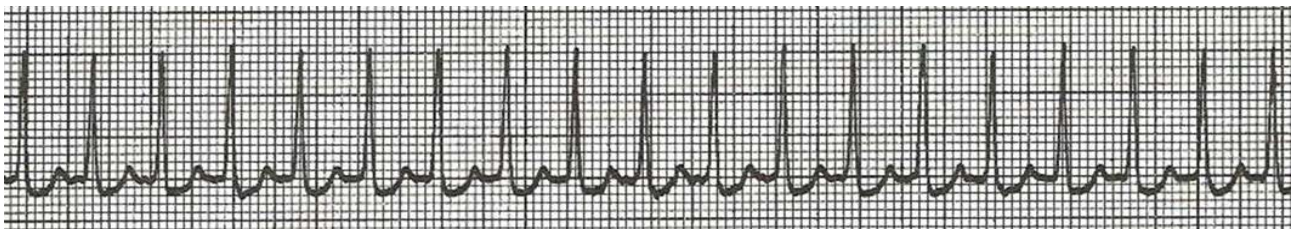
126. If a conscious patient experiences agitation from pacing, what intervention is indicated?

Narrow QRS Complex Tachycardia

127. Which of these should be treated according to the narrow QRS complex tachycardia SOP?

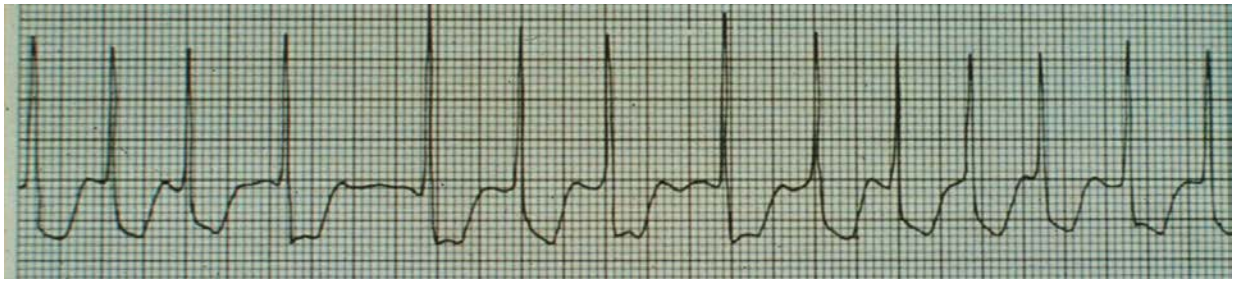
A. HR > 100 & left ventricular failure
B. HR > 150 due to atrial tachycardia and/or a-fib
C. HR > 150 in a patient who has overdosed on cocaine
D. HR > 120 in a trauma patient with possible intraperitoneal bleeding

128. A conscious and alert adult is c/o chest pressure and shortness of breath. VS: BP 110/74; R 16; SpO_2 95%. ECG as below. After Vagal maneuvers are unsuccessful in slowing the rate, what intervention is indicated?



A. Synchronized cardioversion at 100 J
B. Verapamil 5 mg slow IVP over 2 minutes
C. Adenosine 6 mgt rapid IVP + 20 mL NS flush
D. On-going assessment, no medications, transport

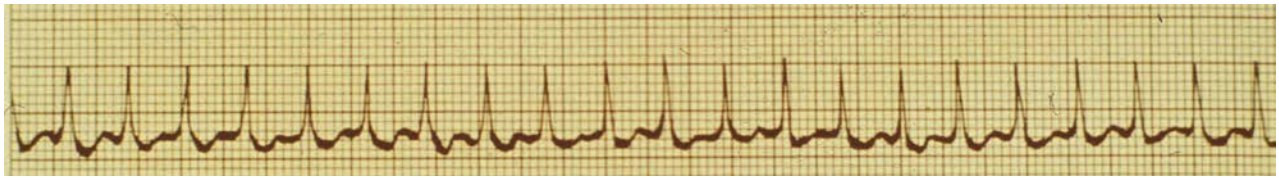
129. A conscious and alert adult is complaining of chest pain and palpitations. VS: BP 110/74; P 140; R 16; SpO_2 95%. ECG as below.



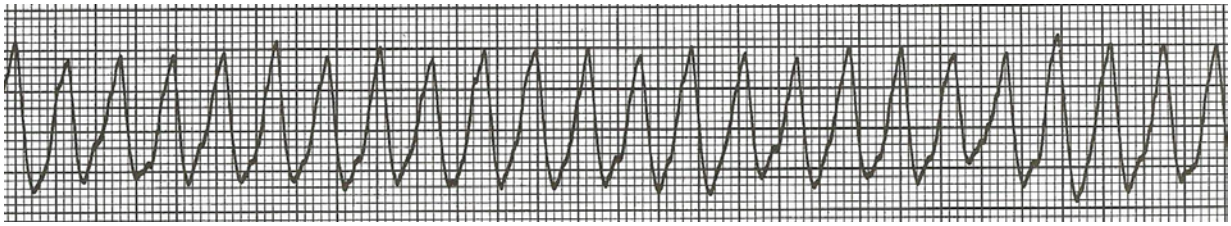
After Vagal maneuvers are unsuccessful in slowing the rhythm, what intervention is indicated?

A. Verapamil 5 mg slow IVP
B. Adenocard 6 mg rapid IVP
C. Magnesium 2 Gm slow IVP
D. Amiodarone 150 mg slow IVP

130. 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



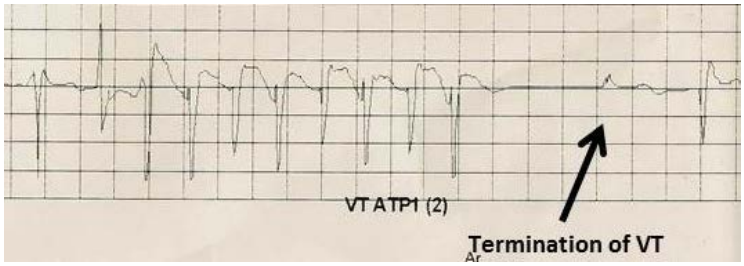
131. Which intervention is indicated for a conscious & alert adult with a radial pulse and BP 100/70 who presents in the above rhythm?

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

132. 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?

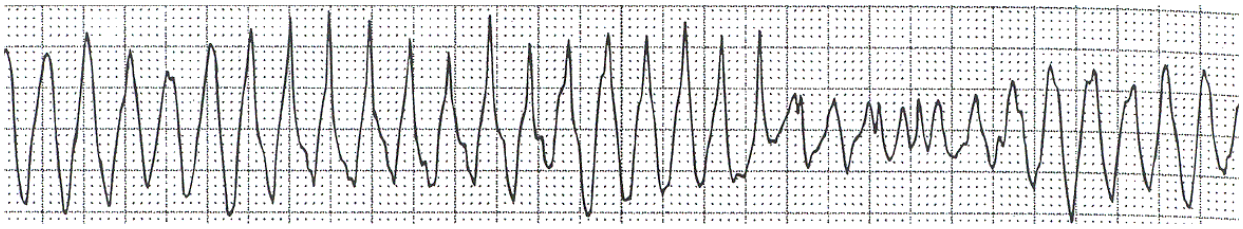
_____

133. 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

134. What intervention is indicated for a conscious adult with a radial pulse & BP 100/70 in the rhythm below?

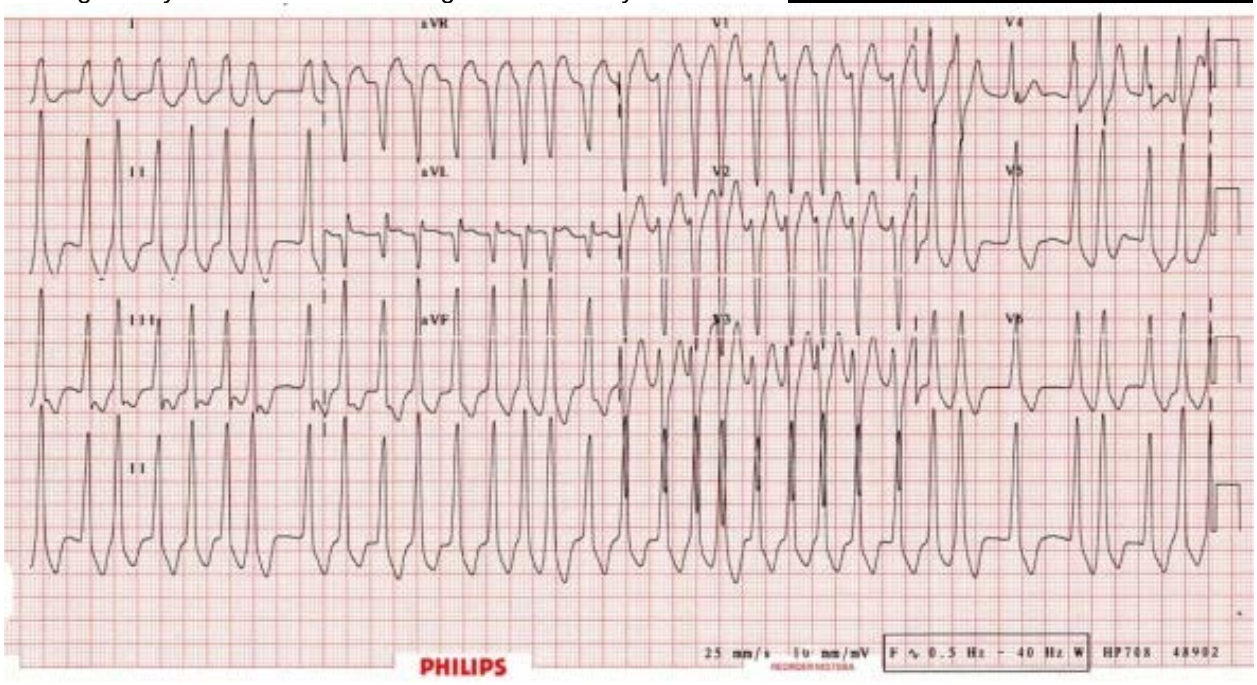


A. Synchronized cardioversion at 100 J
B. Magnesium 2 Gm in 16 mL NS slow IVP
C. Amiodarone 150 mg mixed w/ 7 mL NS slow IVP
D. Defibrillation at 360 J or device-specific biphasic setting per VF SOP

135. What intervention is indicated if the above patient develops an altered mental status or drops their SBP < 90?

_____

136. A 61 y/o male is c/o a funny feeling in his chest. He has had similar milder episodes in the past and has been investigated by his GP with no firm diagnosis. What rhythm is this**?** _____



What treatment should the above patient receive?

Ventricular fibrillation/pulseless VT

137. 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

138. 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

139. 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

140. 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. < 5
B. 10 to 15
C. 15 to 20
D. 30

141. What is the optimal CPR compression rate per minute for an adult when a ResQPod is being used?

A. 60
B. 80-100
C. 100-110
D. Approximately 120

142. What should be the chest compression depth for adults during CPR?

A. ½ to 1 inches
B. 1½ to 2 inches
C. 2" – 2.4" inches
D. ½ the anterior posterior chest diameter

143. 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

144. When should defib pads be placed on a pulseless patient in cardiac arrest?

A. Before CPR is initiated
B. During a brief pause in CPR
C. After the initial rhythm is found to be VF
D. While CPR is in progress, without interrupting chest compressions

145. An unconscious adult male is found in VF. The patient's wife states that he had an ICD implanted six months ago. Which EMS intervention is appropriate for this patient?

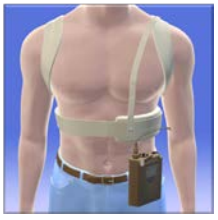
A. Deactivate the unit with a round magnet and begin CPR
B. Defibrillate and process through the VF SOP as usual
C. Listen over the battery pack with a stethoscope to see if the unit is still charging
D. Wear insulating gloves when performing chest compressions to reduce current exposure

146. 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

147. 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



148. An unconscious, pulseless adult presents in VF with the device at right attached to his person. What EMS intervention in 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

149. For a witnessed OHCA with a shockable rhythm, it may be reasonable for EMS systems to delay positive-pressure ventilation (PPV) by using a strategy of up to 3 cycles of 200 continuous compressions accompanied by:

150. What is the preferred contemporary approach to airway mgt in a patient in cardiac arrest?

A. Intubate ASAP as long as compressions are not interrupted for more than 60 sec
B. Airway mgt no longer important if rescuers perform quality chest compressions
C. BLS airways transitioning to advanced (King) only if needed

151. What should be added to the airway/ventilatory device to make CPR more effective?

A. PEEP
B. ResQPod
C. Demand valve unit
D. Continuous suction

152. When resuscitating VF, which of these is indicated after placing an advanced airway?

A. Change the compression/ventilation ratio to 5:1
B. Increase the ventilatory rate to 12-16 breaths/minute
C. Perform continuous compressions without pausing for ventilations
D. Pause compressions to suction the King gastric port or ETT as needed

153. How frequently should epinephrine be given to a patient in cardiac arrest?

A. Every 3 - 5 minutes
B. At 15 minute intervals
C. After every defibrillation
D. Every 2 minutes when the rhythm is checked

154. Which of these is the preferred dose & route of epinephrine for an adult in pulseless arrest?

A. 1mg/1mL 1 mg IVP/IO
B. 1mg/1mL 0.5 mg increments IVP/IO
C. 1mg/10mL 1 mg IVP/IO
D. 1mg/10mL 0.01 mg increments IVP/IO

155. Which of these is the correct dose for amiodarone when given to a patient in V-fib?

A. 50 mg fast IVP
B. 1.5 mg/kg slow IVP
C. 300 mg rapid IVP (undiluted)
D. 150 mg slow IVP mixed with 7 mL NS over 8-10 minutes

156. What is the repeat dose of amiodarone for patients in VF and how long after the 1st dose should it be given?

_____

157. 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

158. If a patient has persistent VF, what intervention is indicated?

159. If patients with refractory VF have had high quality CPR, several attempts at defib, and appropriate meds have been given, what intervention should be considered if 2 ALS vehicles are on the scene?

160. 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

161. An adult experienced ROSC from VF. The pt is unconscious, remains intubated; and $EtCO_2$ has a square waveform and digital reading of 62 mmHg. The pt is breathing spontaneously. VS: BP 80/50; P 76; R 12; SpO_2 93%. Which of these is indicated?

A. O_2 to achieve an SpO_2 of 100%
B. Hyperventilate to an $EtCO_2$ of 30
C. O_2 just to achieve an SpO_2 of 94%
D. Secure ResQPod to ensure good ventilations

162. An adult found in VF has been successfully resuscitated to a sinus rhythm (HR 80) with return of spontaneous circulation. The patient remains unconscious with a palpable carotid pulse. BP is 70/40. While providing a fluid challenge, which of these is indicated FIRST?

A. Norepinephrine IVPB
B. 30 seconds of hyperventilation to wash out respiratory acids
C. Rapid external warming with activated hot packs and blankets
D. Secure the ResQPod in place to ensure continued operation enroute to the hospital

163. Why is it important to obtain a 12 L ECG ASAP after ROSC?

A. To get the best possible rhythm analysis
B. To look for evidence of benign early repolarization
C. To see if the heart was damaged during the resuscitation
D. To determine the need for an urgent cardiac catheterization (STEMI)

Asystole/PEA

164. 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 $EtCO_2$ 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

165. Which of these is indicated first if an adult in pulmonary edema presents with severe respiratory distress and/or altered mental status?

A. O_2 10-15 L/NRM
B. DAI and O_2 15 L/BVM
C. O_2 15 L (FiO_2 60%)/C-PAP mask w/ 5 cm PEEP
D. O_2 flush (FiO_2 95%)/C-PAP mask w/ 10 cm PEEP

166. 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_2 92%; capnography 32 with square waveform; lungs have wheezing bilaterally. Which of these is indicated for this patient?

A. C-PAP & NTG
B. Epinephrine 0.3 mg IM
A. O_2 15 L/NRM and transport
B. Albuterol & ipratropium/HHN

167. 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_2 90%. Lungs have bilateral crackles in both bases. What action is indicated *first*?

A. Increase PEEP to 10 cm and FiO_2 to 95%
B. Perform DAI and assist ventilations with a BVM
C. Stop C-PAP and switch to a nonrebreather mask
D. Have a paramedic coach the pt, consider giving midazolam in 2 mg increments

168. 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.)

_____

169. 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_2 70%; capnography 30 with square waveform. After IMC, which intervention is indicated?

A. C-PAP w/ 10 cm PEEP
B. Nitroglycerin 0.4 mg SL
C. Fluid challenges in 200 mL increments
D. Norepinephrine drip, starting 8 mcg/min

MEDICAL EMERGENCIES

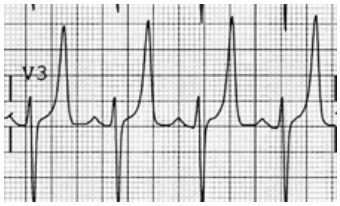
170. A patient with a pulsating midline abdominal mass above the umbilicus is c/o severe abdominal pain radiating to the back and severe flank pain with diminished femoral pulses. VS: BP 98/66; P of 100. Should this patient be treated with IV fluid challenges?

A. Yes B. No

171. An adult presents with severe abd pain (10/10). The abdomen has significant involuntary guarding, point tenderness and rigidity in the RLQ, & the patient winzes when the heel is tapped (rebound tenderness.) VS are WNL. Is this patient a candidate for fentanyl per SOP?

A. Yes B. No

172. An adult presents with severe weakness prior to renal dialysis. ECG to right. Which drugs are indicated?



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_____

173. 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?

_____

174 Why is the initial naloxone dose if a patient is found breathing? _____

Apneic? _____

175. 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?

A. Obtain a blood glucose reading to assess for hypoglycemia
B. Leave him in the custody of police to sleep it off, as he is apparently intoxicated
C. Provide him with full disclosure of risk and have him sign the Release of Service form
D. Administer midazolam in 2 mg increments to decrease his agitation and facilitate transport

176. How should an intoxicated patient be assessed to determine the degree of motor impairment?

A. Cerebellar exam
B. Full cranial nerve exam
C. Cincinnati stroke screen
D. Grading motor strength on a scale of 1 to 5

177. 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?

_____

178. What drug should be given to hypoglycemic patients with AMS when vascular access cannot be established?

_____

179. 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?

A. They need to eat to prevent recurring hypoglycemia.
B. They should check their blood sugar ever 5 minutes for the next hour.
C. They should skip their next dose of insulin to avoid another dip in blood sugar.
D. They should take their next insulin dose early to offset the effects of the IV dextrose.

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

_____

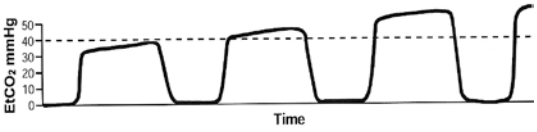
_____

_____

181. What intervention is indicated for DKA or Hyperosmolar Hyperglycemic Non-ketotic Syndrome (HHNS) as long as the lungs are clear?

A. 10% dextrose, 250 mL IV or IO
B. NS wide open up to 1 L unless contraindicated
C. O_2 at 2 L per simple face mask so the patient rebreathes CO_2 and stops hyperventilating
D. Assist the patient in administering an additional dose of insulin to bring the blood sugar down

182. An adult presents w GCS 9 (2, 2, 5) with snoring ventilations. VS: T 98.7º F, BP 100/70, P 84, R 6; RA SpO_2 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. Capnogram below. Which of these is indicated?



A. CPAP 5 cm PEEP; glucagon 1 mg IVP
B. O_2 15 L/BVM; blood glucose level; naloxone
C. O_2 NC to SpO_2 94%; sodium bicarb 1 mEq/kg IVP
D. Intubation w/ 100% O_2/BVM; inline albuterol & ipratropium

183. What drug and dose is indicated if a patient has severe excited delirium with severe anxiety/agitation following ingestion of cocaine?

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

A. Yes B. No

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

_____.

186. A patient presents with possible CO poisoning with a GCS of 9; BP 150/90; P 120; R 26; SpO_2 98% and clear lung sounds. Where should NWC EMS paramedics transport this patient?

_____

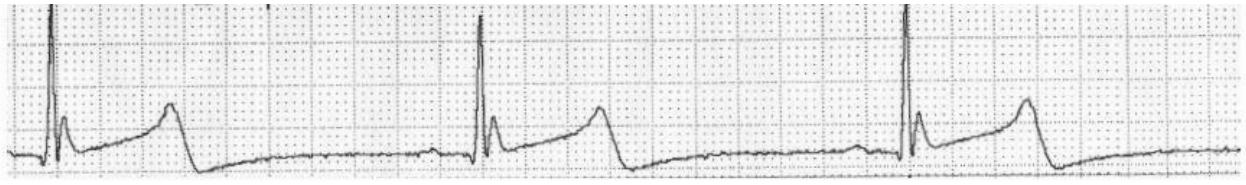
187. What antidote to cyanide poisoning is an approved EMS alternative to amyl nitrite inhalants?

A. Cyanokit – Hydroxocobalamin
B. Sodium thiosulfate
C. Amyl nitrate IVP
D. Nitroglycerin tabs

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

189. 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

190. 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

191. 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_2 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_2 15 L/NRM while giving patient full disclosure of risk prior to executing the refusal form

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

193. 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_2 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

194. 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?

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

196. 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:

197. Who must confirm the order for using restraints on a combative patient? _____

198. A young adult presents with mild agitation. Once in restraints he remains restless. VS: BP 160/100; P 116; RR 24.. Pupils are dilated; glucose 120. Wt: 200 lbs. Which of these is indicated?

A. Midazolam up to10 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

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

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

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

202. What assessment findings should be obtained as part of the rapid prehospital stroke screen?

Mental status

o

o

o

o

Cranial nerves

o

o

o

o

Limbs

o _____

o _____

o _____

o _____

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

_____

_____

_____

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

_____

205. 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. Which of these is indicated 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

206. An adult presents with weakness of the right arm for the past 30 minutes. GCS 15; he says the right words but cannot articulate them well; is oriented X4; opens & closes his eyes to commands and can wrinkle both sides of his forehead. However, the left eyelid does not close as tightly as the right and there is a left facial droop and asymmetrical smile. There are no gaze abnormalities or visual deficits. The patient denies vertigo, light or sound sensitivity, paresthesias or numbness. Right arm: immediate pronator drift. Left arm and both legs normal motor exam (no drift). Coordination tests are normal for left arm and both legs; but cannot be accomplished on the right arm due to motor weakness.
VS: BP 180/96; P 72; ECG: NSR; R 18; SpO_2 93%; lungs are clear; glucose 120.
PHM: HTN and high cholesterol. Meds: olmesartan, Lipitor, and hydrochlorothiazide.
Last seen normal about 30 min ago. Which is indicated while on-scene?

A. IV NS TKO
B. Oxygen to SpO_2 of 94%
C. Sit in semi-Fowler's position
D. Elevate patient's head on a pillow

207. When completing the PCR, how should the Cincinnati Stroke Screen (CSS) be documented?

CSS:	☐ Normal	☐ Abnormal
Arm drift:	☐ Normal	☐ Abnormal
Speech	☐ Normal	☐ Abnormal
Smile	☐ Normal	☐ Abnormal

208. You are within 5 minutes of transport time to the nearest Primary Stroke Center and 30 minutes from the nearest Comprehensive Stroke Center. Where should this patient be transported?

A. Nearest Primary Stroke Center
B. Nearest Comprehensive Stroke Center

209. An adult presents with extreme vertigo, double vision (diplopia), and photophobia for the past 45 minutes. GCS 15; speech is normal and fluent; patient is oriented X4; opens & closes his eyes to commands and can wrinkle both sides of his forehead. No facial droop, smile is symmetrical. The left eye has a fixed gaze abnormality to the ear and there are losses of visual fields to the right; PERL. Patient denies paresthesias or numbness. There is no arm or leg drift;
VS: BP 210/104, HR 88, ECG Controlled A-Fib; 12 L: No acute ischemic changes; R 16, SpO_2 96%; lungs clear; glucose 160.
PHM: T2 diabetes; atherosclerosis; A-fib. Meds: metformin, captopril, rivaroxaban.
Last seen normal about 45 min ago

When completing the PCR, how should the CSS be noted?

CSS:	☐ Normal	☐ Abnormal
Arm drift:	☐ Normal	☐ Abnormal
Speech	☐ Normal	☐ Abnormal
Smile	☐ Normal	☐ Abnormal

210. You are within 10 minutes of transport to the nearest Primary Stroke Center and 25 minutes from the nearest Comprehensive Stroke Center. Where should this patient be transported?

A. Nearest Primary Stroke Center
B. Nearest Comprehensive Stroke Center

Why? _____

211. 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?

_____

Shock

212. An elderly adult presents one day after being discharged from a hospital with pneumonia. The pt is confused (GCS 14); 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_2 90%; $EtCO_2$ 25 with square waveform. The 12-L ECG shows no acute ischemic changes. What are the QSOFA and septic shock criteria exhibited by this patient?

_____

213. 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 ↑ HR & bronchodilation
C. Angiotensin receptor blocker prevents cardiac remodeling
D. Alpha receptor stimulant causing vasoconstriction & increased peripheral vascular resistance

214. What are the indications per SOP for norepinephrine?

_____

_____

215. 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 upward in 2 mcg/min increments to 20 mcg/min

216. If you are using macrodrip tubing calibrated at 20 gtts/mL, how many drops per minute should a norepinephrine drip be INITIALLY set to run?

A. 20 C. 40
B. 30 D. 120

217. How often should the vital signs be taken after starting norepinephrine until the target BP is reached?

_____

218. 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

TRAUMA SOPS

219. 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?

_____

220. 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_2 90%; $EtCO_2$ 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

221. What is the maximum SBP target in mmHg when giving IVF challenges to a pt with penetrating torso trauma?

A. 60
B. 70
C. 80
D. Above 90

222. What is the *first* step in hemorrhage control for brisk, but not exsanguinating 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

223 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

224. 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

225. 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.

226. Which trauma patients meet Time Sensitive Criteria?

A. Level I criteria only
B. Level I and Level II criteria
C. It depends on the mechanism of injury

227. 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

228. 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

229. A conscious adult presents with partial and full thickness thermal burns over 60% of their body. There is no other mechanism of trauma. The airway is presently intact with no apparent burns or dyspnea; RR rapid; SpO_2 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

230. 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. Pt is nonsalvageable; terminate all resuscitation
B. Perform bilateral needle pleural decompressions
C. Perform needle pleural decompression on L chest
D. Transport immediately with BLS care deferring all ALS care to the hospital

231. 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

232. How should the airway be secured for a patient with an inhalation burn in severe respiratory distress and with progressive compromise of the airway?

_____

233. 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%

234. 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

235. A conscious and agitated adult presents with partial thickness thermal burns over 60% of TBSA. VS: BP 110/84; P 130; R 32; SpO_2 96%. Airway is currently patent. In addition to 15 L O_2/NRM and pain management, what care is indicated to treat the burn wound?

_____

How much IV solution is indicated for the above patient? _____

236. 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

237. 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

238. 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

239. What size needle should be used to perform a needle pleural decompression? _____

240. What should be used to convert an open to a closed pneumothorax?

241. 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_2: 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

242. 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

243. 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_2 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

244. 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?

_____

245. If a patient has a penetrating globe injury, with what should it be covered?

_____

FACIAL TRAUMA

246. How should a paramedic treat an epistaxis (nose bleed) without any suspicion of CSF leak?

A. Pinch over the bridge of the nose for 2 minutes
B. Bilateral digital pressure to nostrils just below the nasal bones
C. Insert QuikClot gauze into each nostril to tamponade the bleeding
D. Position the patient supine and place an ice bag over the back of the neck

247. What is the preferred method to transport an avulsed tooth in a patient with altered mental status?

A. In milk or saline
B. In a dry sterile 4X4
C. In a cup of tap water
D. Between the patient's cheek and gums

HEAD TRAUMA

248. An adult sustained blunt trauma to the head and abdomen in an MVC. GCS: eyes open to verbal stimuli; verbal response is confused; motor response localizes pain. Skin is pale, cool, and moist. Pupils are midpoint and reactive to light. VS: BP 100/76; P 110; ECG SR; R 20; lungs clear; SpO_2 94%. Abdominal exam reveals generalized guarding and rigidity. Which of these is indicated?

A. Rapid transport with no IV needed
B. Norepinephrine drip to achieve SBP 150
C. IV NS run TKO as SBP already exceeds targets
D. NS IVF boluses (200 mL increments up to 1 L); target SBP 110-120

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

_____

What factors must **NOT** be present?

_____

_____

250. 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

251. 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_2 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 $ETCO_2$ of 30-35

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

SPINE TRAUMA

253. 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. Standing backboard technique
B. Securing patient to a stretcher without a long backboard
C. 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

254. 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; SpO2 97%; capnography 38 w/ square waveform; GCS 15; wt: 180 lbs. Which of these is indicated first?

A. Intubate to take over ventilations
B. Apply slight traction to head and neck to realign head
C. Place on scoop stretcher w/o securing head and neck to prevent further injury
D. NS IVF challenges in 200 mL increments up to 1 L to achieve SBP ≥ 90 (MAP≥ 65)

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

_____

256. If the above intervention does not achieve a SBP $\geq$ 90, what should be given next?

257. If a patient is wearing a form-fitting helmet, the airway is accessible, and the patient experiences paresthesias or neck pain during removal attempts; should the helmet be left in place or removed prior to transport?

A. Left in place B. Removed

MUSCULO-SKELETAL Trauma

258. 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 for pain management?

259. If a patient is complaining of severe back pain from and muscle spasms, what can be given to help reduce the muscle spasm?

_____

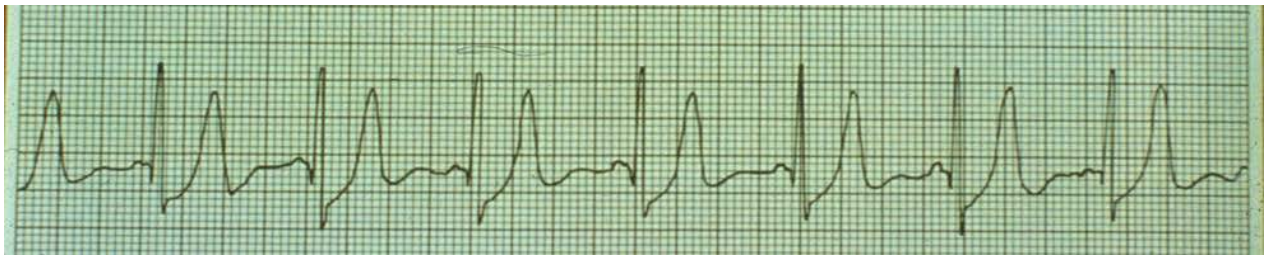
260. Name the replantation center in Region 9 where patients with amputations above the wrist or ankle should be transported:

_____

261. How should the IV be run on a patient who has had compression of a muscle mass for 4 hours or more prior to compression release?

_____

262. An adult's legs, abdomen and chest have been compressed in a trench cave-in for 6 hours. O_2 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

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

264. 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

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

_____

_____ .

_____

266. What triage category should be assigned to a patient who is awake and can follow commands with a radial pulse, RR < 30, but cannot walk?

A. Red
B. Yellow
C. Green
D. Deceased

267. How many patients of any triage color category may be taken to each surrounding hospital from a multiple patient incident without seeking approval from the receiving hospital? _____

268. Who should on-scene personnel contact in a small scale multiple patient incident to coordinate the remaining patient distribution when the # of ill or injured patients exceeds the transport of the initial patients to the nearest hospitals?

A. Closest System Resource or Associate Hospital
B. Resource hospital only
C. Closest hospital (could be in another EMS System

269. Are EMS personnel required to contact the receiving hospital with a radio report when transporting patients from a small scale multiple patient incident?

A. Yes B. No

Is a complete electronic patient care report required for each pt transported? A. Yes B. No

270. When does a medium to large scale multiple patient incident exist?

271 Which of these patients should be transported **first** based on START triage?

A. Can't walk; RR 20; radial pulse present
B. No respirations after opening the airway
C. Can walk; multiple lacerations with controlled bleeding
D. Can't walk; cannot follow commands; radial pulse absent; carotid pulse present

272. Who should on-scene personnel contact to coordinate patient distribution in a medium to large scale multiple patient incident?

A. Closest System Resource or Associate Hospital
B. Resource hospital only
C. Closest hospital (could be in another EMS System

273. Which of these should be considered when determining the hospital destination for victims of a mass casualty?

A. Trauma triage criteria: Level I or II
B. Pt acuity based on secondary triage
C. Family relationships – send relatives to same hospital
D. Hospital distance; do not use hospitals > 30 min away

274. Is an OLMC report to the receiving hospital required when transporting patients from a medium to large scale multiple patient incident?

A. Yes B. No

Is it necessary to complete an electronic patient care report for each patient transported?

A. Yes B. No

CHEMICAL AGENTS

275. 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

276. 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

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

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

TRAUMA IN PREGNANCY

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

OBSTETRICAL EMERGENCIES

280. 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

281. 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

282. How should a paramedic facilitate delivery of the head in a normal vertex presentation?

A. Use MacGill 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.

283. 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

284. 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.

285 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

286. 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?

287. If the baby's head does not deliver within 30 sec after the shoulders in a breach presentation, what action is indicated?

_____

_____

288. What interventions are indicated for a prolapsed cord?

289. What intervention is indicated if a woman experiences a uterine inversion immediately after delivery?

290. If there is any possibility that an infant born prematurely may be >20 weeks gestation and the baby has cyanosis with spontaneous ventilations, a detectable slow heart beat by auscultation, or spontaneous movements, what care is indicated?:

291. 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 1mg/10mL 0.02 mg/kg ET

292. 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%

293. If ventilations have been assisted in a distressed newborn for 30 sec and the HR remains $\leq$ 60, what intervention is indicated next?

294. What is the epinephrine dose for a 3 kg newborn with severe bradycardia?

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

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

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

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

297. 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

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

_____

_____

_____

299. What drug is indicated for pre-eclampsia? _____

PEDIATRIC SOPs

300. The pediatric protocols should be used for all children _____ years or younger.

301. 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

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

_____

303. What is the compression depth when doing CPR on an 8-year-old child? _____)

304. A 20 ml/kg IV NS fluid volume bolus in children may be given up to _____ times.

305. 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

306. 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

307. 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

308. 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

309. 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

310. 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

311. A six year old who weighs 40 lbs requires DAI for a severe asthma attack? What sedative and specific dose do they require?

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

313. An infant <1 yr presents following a sudden, brief, and now resolved episode of cyanosis, decreased and irregular breathing; marked change in muscle tone and altered level of responsiveness. The symptoms have all resolved upon EMS arrival. Which of these should be suspected?

A. Aborted SIDS
B. Foreign body aspiration
C. Sleep apnea syndrome
D. Brief Resolved Unexplained Event

314. The parents want to sign a refusal because the infant appear fine now. Which of these is recommended by SOP?

A. All should be transported to EDAP/PCCC for more complete workup
B. Provide parents with full disclosure of risk and have them sign the Refusal of Service form

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

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

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

318. What is the treatment to be given to a pediatric patient with Emergent to CRITICAL acuity (Moderate to severe cardiorespiratory compromise) that includes cyanosis, marked stridor or respiratory distress?

319. If a child <2 years presents with S&S of bronchiolitis including a runny nose, cough, and mild fever that progresses to labored breathing with a high fever, severe retractions, prolonged expiration w/ air trapping and wheezing and increasing exhaustion; what condition is likely?

A. Asthma
B. Pertussis
C. Epiglottitis
D. RSV infection

320. 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?

_____

321. What is the pediatric dose of adenosine? _____

322. What is the pediatric dose of amiodarone for monomorphic VT and VF?

_____

323. What is the age range for using a peds attenuator system when applying an AED?

_____

324. What is the dose for epinephrine when treating a pediatric patient in V-fib or asystole?

_____ (concentration) _____ mg/kg IV/IO up to _____

325. 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)

326. What is the peds dose for naloxone?

_____

May repeat _____

327. How should a child with febrile seizures be cooled?

_____

328. 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)

329. Are NWC EMSS paramedics allowed to give intrarectal diazepam?

A. Yes, in the form of Diastat if present on scene
B. No, this is a dangerous route for medication administration in the field

330. What number should be called if EMS personnel suspect that a child has been abused?

_____

331. Where can you find the **Maximum QT Intervals based on Heart Rate**; lead placement for 12 L ECGs, and anticipated changes with ischemia and infarct?

332. Where can you find tables of all the pediatric drug doses precalculated by body weight?

333. Where can you find the adult doses of ketamine precalculated by body weight?

334. Where can you find a table listing the drip rates for norepinephrine based on the calibration of the various macrodip tubing? Hint…need to go the System website and look at on-line version of the SOP.

335. Where can you find a table listing every hospital in Regions 8, 9, and 10 and their specialty status?

SOP/Self-assessment 16 KEY