

**SOUTH PLAINS
EMERGENCY MEDICAL
SERVICES**

**PRE-HOSPITAL
TREATMENT
PROTOCOL
EXAM**

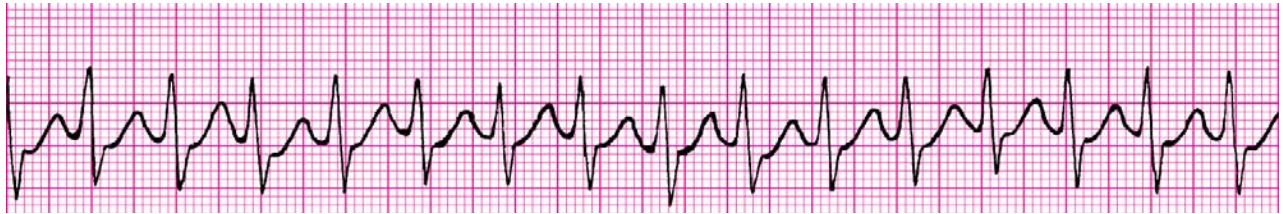
**EMT
PARAMEDIC
FEBRUARY 2012**

****Minimum Passing Grade is 80%****

2012
EMT-PARAMEDIC
Protocol Exam

1. Which of the following patient conditions would CPAP be indicated for?
 - A. Pneumonia with dyspnea and diminished lung with bilateral wheezing
 - B. COPD with dyspnea and severe wheezing in all lobes
 - C. CHF with dyspnea with bilateral rales
 - D. Any/all of the above

2. Your patient is a 65 year old male complaining of chest pain and heart palpitations. You apply the heart monitor and see the EKG below. His vital signs are: BP 86/50, R-18 and normal, Pulse corresponds with the EKG. His skin is cool and moist. He has no medical history and no drug allergies. Which algorithm should you follow in treating this patient?
 - A. Cardiac Chest Pain
 - B. Supraventricular Tachycardia
 - C. Ventricular Tachycardia (Conscious Patient)
 - D. Cardiogenic Shock



3. Which of the following is the correct way to mix and administer a 50% Magnesium Sulfate Drip at 1g/hr?
 - A. 5g/250cc of NS running at 50gtt/min
 - B. 5g/500cc of NS running at 50gtt/min
 - C. 5g/500cc of NS running at 100gtt/min
 - D. Either A or C

4. You respond to a 28-year-old male who is having severe lower abdominal pain. The patient states that his abdomen feels like he has “been kicked by a mule”. He states that the pain awakened him out of a deep sleep about two hours ago and began around his naval. He states that the pain is now located in the lower right quadrant of the abdomen and rates his pain at an 7 on the 1-10 scale. He denies any trauma. He is conscious, alert, and well oriented. His skin is warm, dry, and normal in color. His vital signs are: BP 132/84, respirations are 24 and uncomplicated, and his pulse rate is 92 strong and regular. EKG shows a normal sinus rhythm without ectopy. The abdomen is soft but tender; especially in the lower right quadrant. To manage the abdominal pain, you should:
 - A. Administer Morphine without online medical direction
 - B. Administer Fentanyl without online medical direction
 - C. Contact medical control as administration of pain medication for this patient must be authorized by online medical direction
 - D. Either A or B

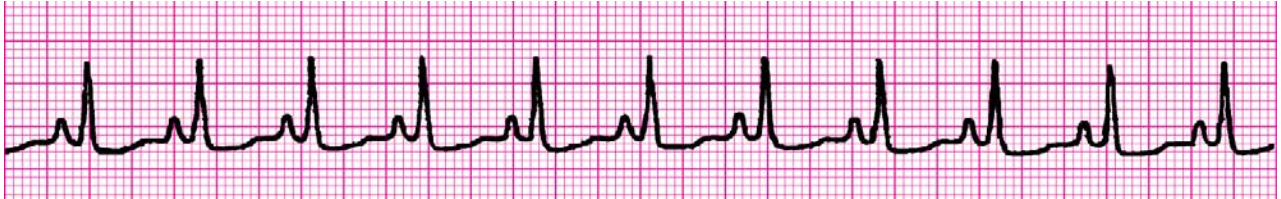
5. How should the EZ-IO catheter be secured on an adult patient?
 - A. Use of bulky dressings
 - B. Use of an EZ-STABILIZER
 - C. Plastic cup
 - D. Either A or C

6. You respond for a 34-year-old female having an allergic reaction to a bee sting. She is having some dyspnea and her BP is 126/72 with good capillary refill. She is conscious and alert. What drugs should be given?
 - A. 0.5mg Epinephrine 1:1,000 IM and 50mg Benadryl IV
 - B. 0.5mg Epinephrine 1:10,000 IV and 20mg Decadron IV
 - C. 50mg Benadryl IV, 2.5mg Albuterol HHN, and 20mg Decadron IV
 - D. 0.3mg Epinephrine 1:1,000 IM and 50mg Benadryl IV

7. What is the correct adult and pediatric dosage of Fentanyl for pain management of a conscious patient with a femur fracture?
 - A. 5mcg/kg to a max of 50mcg per dose
 - B. 1mcg/kg to a max of 50mcg
 - C. 1mcg/kg to a max of 25mcg
 - D. 5mcg/kg to a max of 100mcg per dose

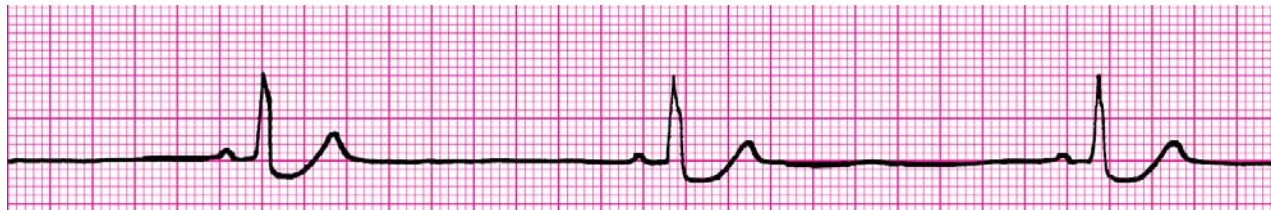
8. For adult patients in cardiogenic shock, what is the initial fluid challenge procedure?
 - A. 250cc of NS or LR X 1
 - B. 500-1000cc of NS
 - C. 500-1,000cc of LR
 - D. Either B or C

9. You arrive to find a 54-year-old female unconscious, unresponsive, pulseless and apneic. The ECG shows aystole. During the initial 2 minutes of CPR, you were able to successfully establish an IV. Which of the following drug regiments would be the correct for this patient for the duration of aystole?
- Epinephrine 1:10,000 every 3-5 minutes
 - Epinephrine 1:10,000 every 3-5 minutes followed by Atropine 1mg every 3-5 minutes to a max of 3mg
 - Epinephrine 1:10,000 every 3-5 minutes followed by Amiodarone 300mg repeated once in 3-5 minutes at 150mg
 - Epinephrine drip at 2-10mcg/min
10. Your patient is a 36-year-old female complaining of severe shortness of breath. She has a long standing history of asthma. She tells you that she has not taken any bronchodilators because she has not had her prescriptions refilled. BP is 124/78. Respirations are 32 and labored. Pulse is 118, strong, and regular. Bilateral wheezing is noted. Pulse ox shows 88% on oxygen at 10lpm via a non-rebreather. You have established an IV and the EKG shows the rhythm below. Which drugs should be given initially?
- Albuterol and Decadron
 - Xopenex and Decadron
 - Epinephrine 1:1,000
 - Either A or B



11. Electronic signatures are acceptable on the new OOH DNR forms.
- True
 - False
12. Your patient is a 67-year-old female that presents with altered mental status and is responding only to painful stimuli. She is breathing at 16 breaths per minute. Pulse is 84 strong and regular. BP is 144/94. She has no history of diabetes and her blood glucose level is 132mg/dL. She has a history of hypertension, unknown “heart condition” and chronic back pain resulting from an MVC 2 years ago. Her medications include: Inderol, potassium, and MS Contin. Which drug should be given?
- Narcan 2mg IV push repeated if not improvement in mental status
 - Narcan 0.1mg every 2-3 minutes until clinical effect noted
 - Activated Charcoal 1g/kg up to 50g
 - D50W, 25g IV push
13. You respond for a 76-year-old female having chest pain. She shows all signs of a right ventricular infarct (RVI). Her vital signs are P-76 weak, irregular; R-20 and normal; and BP is 82/48. You have this patient on oxygen and have administered aspirin. You perform a 12 lead and confirm a possible RVI. What is the next course of action on this patient?
- Administer 0.4mg of Nitroglycerin SL
 - Administer Dopamine at 5mcg/kg/min
 - Administer 40mg of Lasix IV push
 - Establish a 2nd large bore IV and run wide open titrated to maintain systolic BP>90mmHg
14. The 3 components of the Cincinnati Stroke Scale are:
- Facial droop, one-sided weakness, and speech
 - One sided weakness, arm drift, and speech
 - Facial droop, arm drift, and speech
 - Facial droop, arm drift, and one-sided weakness
15. You respond to find a 44-year-old female that is unconscious and unresponsive. The family tells you that she is a long standing diabetic. Blood sugar shows 24mg/dL. You are unable to establish a typical peripheral IV with an angiocath despite 3 attempts. The patient has all 4 extremities and trauma is not a concern. Your service does carry Glucagon. What is your next course of action?
- Administer Glucagon 1mg IM
 - Administer D50W slow IM
 - Establish an EZ IO and administer D50W IO
 - Perform BLS only and transport

16. You are treating an 18-month-old child for respiratory distress. The patient has bilateral wheezing noted along with retractions. There is no stridor or seal bark cough. Which of the following drugs would be contraindicated for this patient?
- A. Decadron
B. Albuterol
C. Xopenex
D. Both A and C
17. You arrive on scene to find a 69-year-old female that is complaining of severe chest pain with dyspnea. She is sitting upright in a chair. Her skin is cool and moist. Lung sounds are clear and equal, but diminished. BP is 100/62, P- 38 and irregular, R-24 and labored. You place her on oxygen and establish an IV. EKG shows the rhythm below. What is your next treatment?
- A. Establish an Epinephrine drip and run at 2-10mcg/minute
B. Atropine 0.5mg IVP and a fluid challenge of 500-1000cc of NS
C. Establish a Dopamine drip at 5mcg/kg/min
D. Administer Versed, 2.5mg and attempt external pacing



18. Your service wants to hire a new employee who only has a National Registry card. What else must this person obtain before he can function under the SPEMS protocols?
- A. A copy of his course completion certificate
B. A current TDSHS state certification
C. Nothing, A National registry card is enough for a person to work on an ambulance in Texas.
D. A signed "authorization to practice" letter from the Medical Director
19. You are called to a private residence for a 68-year-old male complaining of severe chest pain. Patient is having some SOB and is rating the pain in his chest at a 10. You attach the heart monitor and see a sinus bradycardia at a rate of 42 beats per minute. Pt has a TDSHS Out of Hospital DNR and there is no reason to dispute the DNR. You feel that this is NOT the moment of death for this patient. What should be your initial treatment for this patient?
- A. Administer oxygen only due to the DNR
B. Do nothing since the patient has a valid DNR
C. Administer oxygen, establish an IV, and administer 0.5mg of Atropine
D. Administer oxygen, establish an IV, attempt transcutaneous pacing
20. Which of the following is NOT a sign of right ventricular infarct (RVI)?
- A. ST depression in lead V4R
B. ST elevation in leads II, III, and aVF
C. Hypotension
D. JVD with clear lung sounds
21. Which of the following statements about giving 150mg of Amiodarone over 10 minutes is/are correct?
- A. It may be mixed in a 100cc bag of D5W for adult patients
B. It may be mixed in a 1 liter bag of NS for all patients
C. It should **not** be mixed in a 100cc bag of D5W for pediatric patients
D. Both A and C are correct
22. Which of the following drugs is used to maintain sedation after successful endotracheal intubation using pharmacologic agents?
- A. Valium, 5mg IV. May be repeated as needed to maintain sedation
B. Versed, 0.05mg/kg to a max of 5mg per single dose. May be repeated once if systolic BP>90
C. Etomidate, 0.3mg/kg to a max of 40mg. May repeat once in 10 minutes if needed.
D. Versed, 3mg. May be repeated once if systolic BP>90
23. When should the positive findings of the Cincinnati Stroke Scale **first** be reported?
- A. At the scene, if possible
B. On the run report
C. En route to the ER
D. Upon arrival at the ER

24. Which algorithm(s) require drawing blood in blood tubes for labs?
- Cardiac Chest Pain, Decreased Level of Consciousness, and Stroke/TIA
 - Cardiac Chest Pain, Respiratory Distress, and Stroke/TIA
 - Respiratory Distress, Decreased Level of Consciousness, and Poisoning/Overdose
 - Poisoning/Overdose, Seizures, and Decreased Level of Consciousness

25. You respond to find a 71-year-old female who is complaining of feeling “funny”. She is conscious and alert. She denies any chest pain, dyspnea, or other symptoms. Vitals are: BP: 134/78, Respirations 24 and normal, Pulse is 166 and regular. Lung sounds are clear and equal. The ECG shows the rhythm below. You have the patient on oxygen and an IV established. Your next treatment should be to:

- Give Lidocaine, 1.5mg/kg IV push
- Give Lidocaine, 1mg/kg IV push
- Give Amiodarone, 150mg over 10 minutes
- Give Amiodarone, 150mg rapid IV push



26. You have successfully intubated a respiratory burn patient using a pharmacologic agent to facilitate the procedure. Prior to intubation, the patient was given 5mg of Morphine for pain management. 10 minutes after the intubation, the patient is again showing signs/symptoms of significant pain. What is the correct medication and dosage to manage the patient’s pain?

- Fentanyl, 5mcg/kg, IVP, to a max of 100mcg per single dose
- Morphine administered at ½ of the original dose
- Morphine, 5mg
- Either Morphine at 2.5mg OR Fentanyl, 5mcg/kg, IVP, to a max of 100mcg per single dose

27. To determine if a patient could possibly be suffering from acute coronary syndrome (ACS), and be in need of treatment in the Cardiac Chest Pain or Suspected Myocardial Infarction protocol, the Paramedic should:

- Consider findings from the physical presentation
- Consider the patient’s history and risk factors
- Compile and interpret all collected information
- All of the above

28. To reverse the effects of Magnesium Toxicity, you should:

- Administer Valium, 5mg until seizures are suppressed
- Administer 10% Calcium Gluconate, 1g, slow IVP
- Administer 10% Calcium Gluconate, 1g, rapid IVP
- Administer Atropine, 2mg every 5 minutes until symptoms resolved

29. You respond for a seizing patient. Upon arrival, you find a 38-year-old female having a full, generalized seizure that lasts about 1 minute. She is 31 weeks gestation in her 2nd pregnancy. After the seizure, she does appear postictal with vitals of: BP-148/110; P-104 strong, regular; R-28 slightly labored. Her ECG shows sinus tachycardia at 104. After establishing an IV of NS TKO, the patient begins to seize again. You should first:

- Administer 50% Magnesium Sulfate 4g, diluted 1:1 with NS, IV push over 15 minutes
- Administer Valium, 5mg IV push
- Administer 10% Calcium Gluconate, 1g SIVP
- Administer 50% Magnesium Sulfate drip at 1g/hr

30. A patient presents with trouble walking, sudden confusion, and sudden trouble speaking. He denies falling or any traumatic injury. Which algorithm should be followed?

- Decreased Level of Consciousness
- Seizure
- Respiratory distress
- Stroke/TIA

31. You are transporting a 62-year-old patient in full cardiac arrest and you are unable to gain IV access through a peripheral vein. The patient has had previous bilateral leg amputations just above the knees. What is the best procedure to gain IV access?

- Begin rapid transport without IV access
- Administer all drugs via the ET tube
- Place the EZ-IO at the proximal Humerus
- Request orders for a central line

32. You respond to find a 27-year-old male with 2nd and 3rd degree burns over 36% of his body. After assuring airway and breathing, which of the following IV therapy would be appropriate?
- Two IVs of NS running according to the Parkland Burn Formula
 - Two IVs of LR running according to the Parkland Burn Formula
 - Two IVs of EITHER NS or LR running according to the Parkland Burn Formula
 - Two IVs of EITHER NS or LR running to maintain systolic BP <90mmHg

33. You respond to a residence to find a 62-year-old female who is unconscious and not breathing. The patient does have a weak carotid pulse. BP is 70 by palpation. Pupils are dilated and slow to react. The heart monitor shows the rhythm below. Of the following, which is the FIRST action you should take?
- Begin CPR for 2 minutes
 - Defibrillate at 200J
 - Administer Amiodarone, 150mg over 10 minutes
 - Perform synchronized cardioversion at 100J



34. You arrived to find a 49-year-old female that has been pulled from a frozen lake. She is unconscious, pulseless, and apneic. Her core temperature is 81° F. Her ECG shows fine ventricular fibrillation. Which of the following should be performed/administered?
- CPR, defibrillate every 2 minutes, Epinephrine 1:10,000, and Amiodarone
 - CPR, defibrillate every 2 minutes, withhold all IV medications
 - CPR, defibrillate one time, withhold all IV medications
 - CPR, defibrillate one time, Epinephrine 1:10,000 and Amiodarone

35. Which of the following are considered anginal equivalents and should alert EMS personnel to consider following the Cardiac Chest Pain or Suspected MI Protocol?
- Respiratory distress/dyspnea
 - Weakness/fatigue without history of GI bleed or recent fever
 - Palpitations, syncope, or near syncope
 - Any/all of the above

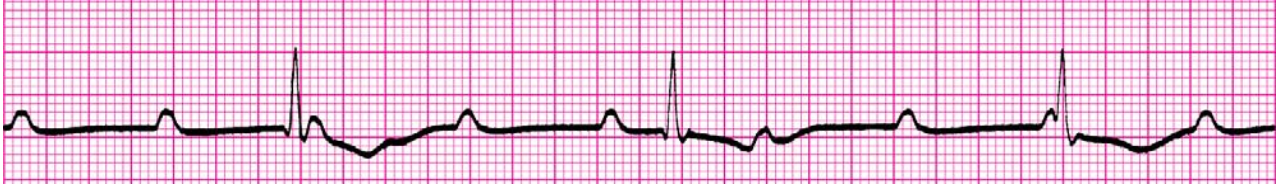
36. Your patient is a 64-year-old female that has been in cardiac arrest for several minutes. You have been ventilating with a BVM and ET tube with attached ResQPOD for the duration of the incident. After the second defibrillation, the patient converts to a perfusing rhythm with a strong carotid pulse. However, the patient has no spontaneous respirations and still requires ventilatory support with a BVM. For this patient, the ResQPOD should be left in place because the patient still requires artificial ventilations.
- True
 - False

37. Which best describes the proper procedure for administering IN Narcan?
- Draw up Narcan in a syringe, attach MAD, lay the pt supine, press the MAD to patient's nostril, administer whole dose in one nostril.
 - Draw up Narcan in a syringe, attach MAD, lay the pt supine, press the MAD to patient's nostril, administer ½ dose in each nostril.
 - Draw up Narcan in a syringe, attach MAD, sit the patient upright, press the MAD to patient's nostril, and administer whole dose in one nostril.
 - Draw up Narcan in a syringe, sit the patient upright, and administer double the dose in one nostril.

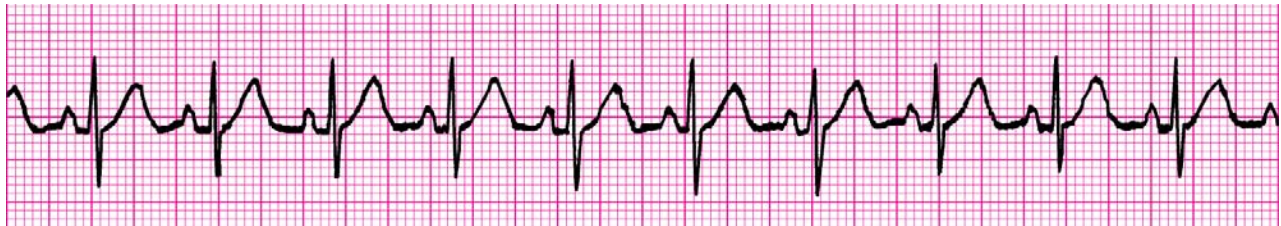
38. You have a patient with obvious signs/symptoms of a stroke, with initial onset 30 minutes ago, and you are unable to adequately manage his/her airway, where should that patient be transported to?
- Nearest acute care facility
 - Closest office or clinic with a physician
 - Closest level I trauma facility
 - Closest highest designated stroke facility

39. The blood glucose level, for a conscious, non-critical patient, should be below _____ before an EZ-IO is established.
- 70mg/dL
 - 60mg/dL
 - 50mg/dL
 - 40mg/dL

40. Your patient is a 68-year-old male who is complaining of dizziness and weakness. His EKG is below. He is restless and not oriented to place or time. His skin is pale, cool, and moist. Capillary refill is greater than 2 seconds. Vital signs: BP 82/40, R 30, shallow, regular, pulse is 32 and weak. He has a history of chronic essential hypertension and angina pectoris. He should be treated initially with:
- A. Nitroglycerin, 0.4 mg SL
 - B. Lidocaine, 1.5 mg/kg IV
 - C. External Pacemaker
 - D. Atropine, 0.5 mg IV



41. Which of the following drugs may be delivered by the IN route, according to the SPEMS protocols?
- A. Morphine, Versed, and Narcan
 - B. Fentanyl, Morphine, and Narcan
 - C. Fentanyl, Valium, and Narcan
 - D. Fentanyl, Versed, and Narcan
42. After successfully establishing an IO on a conscious adult patient, what is the next procedure that should be done?
- A. Administer 1mg/kg Lidocaine SIVP to a max of 50mg to alleviate the pain in the IO space created by intramedullary pressure due to fluid infusion
 - B. Flush IO with 10cc NS to verify proper placement
 - C. Administer 0.5mg/kg Lidocaine SIVP to a max of 1000mg to alleviate the pain in the IO space created by intramedullary pressure due to fluid infusion
 - D. Administer 2-6mg of Morphine SIVP to alleviate the pain in the IO space created by intramedullary pressure due to fluid infusion
43. You respond to a residence to find a 61-year-old female complaining of abdominal pain and generalized weakness and with some nausea and vomiting over the last day. She has a history of CAD, hypertension, arthritis and smokes 2 packs of cigarettes per day. She is awake, alert, and well oriented. She denies any chest pain. Her blood sugar is 124mg/dL. Her vitals are: BP-102/78, P-108 strong and regular, R-18 and uncomplicated. Tilt test reveals dizziness when patient sits up. She has no known drug allergies. 3-lead ECG shows the rhythm below. Which protocol should be followed?
- A. Decreased Level of Consciousness
 - B. Supraventricular Tachycardia
 - C. Cardiogenic Shock
 - D. Non-Traumatic Hypovolemia and consider following the Cardiac Chest Pain or Suspected Myocardial Infarction



44. What is the correct IV and IN dosage of pediatric Narcan for a suspected heroin overdose?
- A. 0.1mg/kg to a max of 2mg
 - B. 0.05mg/kg to a max of 2mg
 - C. 0.1mg/kg to a max of 1mg
 - D. 0.05mg/kg to a max of 1mg
45. Which of the following is NOT a sign/symptom of Magnesium Toxicity?
- A. Muscle weakness
 - B. Hypertension
 - C. Hyporeflexia (decreased tendon reflexes)
 - D. Decreased LOC
46. Your patient is a 6-month-old male that is unconscious. His blood glucose level is 40mg/dL. What is the correct drug to administer?
- A. D12.5W, 5cc/kg
 - B. D25W, 2cc/kg to a max of 100cc
 - C. D50W, 12.5g IV push
 - D. D10W, 3cc/kg

47. To obtain a Lead V4R EKG, following a standard 12 Lead EKG, what must you do?
- A. Swap the left and right leg leads
 - B. Obtain a right sided 12 lead EKG
 - C. Swap the left and right arm leads
 - D. Swap only the V1 and V2 leads
48. All EMS services, at the ALS or MICU levels, MUST carry an ET introducer such as a Bougie.
- A. True
 - B. False
49. Per protocol, Fentanyl is contraindicated in what patients?
- A. Orthopedic injuries
 - B. Children <2 years of age
 - C. BP>90mmHg systolic
 - D. Burn Victims
50. The pediatric and adult dose of Versed intranasally (IN) for seizures is:
- A. 0.1mg/kg to a max of 5mg
 - B. 0.5mg/kg to a max of 5mg
 - C. 0.2mg/kg to a max of 5mg
 - D. 1mg/kg to a max of 5mg

****END OF EXAMINATION****