

SPEMS Protocol Changes
EMT-Paramedic (EMT-P)
2/1/10 to 1/31/11

PROTOCOL CHANGES

- **Every Page**
 - Changed dates at bottom of each page
- **Cover Page**
 - Signature with February 1, 2010 date
- **Page P-1**
 - Addition of **Disclaimer** that states:
 - “The original version of these protocols are located in the SPEMS office, any changes whatsoever are strictly prohibited without the express written permission of the SPEMS’s Medical Director.”
 - “On occasion a variance, addendum, or other change may be needed to the current SPEMS protocols. In this event the request **MUST** be facilitated through the SPEMS office. The request will then be submitted to the SPEMS Medical Director for approval.”
 - No service or individual should contact the Medical Director directly. All requests should go through the SPEMS office
- **Page P-2: Table of Contents**
 - Updated
- **Page P-4**
 - Addition of #2 “Be currently certified in Health Care Provider CPR”
- **Page P-5**
 - Under #7 Skills Proficiency
 - Removed “Recommended” from King Airway proficiency
 - Mandatory
 - Removed “Recommended” from EZ IO
 - Mandatory
- **Page P-10 Definitions**
 - Addition of #1 Acute Coronary Syndrome
 - Classic Angina
 - Traditional presentation
 - Atypical Presentation
 - Pain that is sharp, intermittent, in the teeth, neck, shoulder, arm or abdomen
 - Most commonly occurs in females, diabetics, and the elderly
 - Anginal Equivalents
 - Higher risk patients: dyspnea, palpitations, syncope or near syncope, generalized weakness with no history of a GI bleed, recent fever, and DKA
 - Signs/Symptoms not normally associated with classic angina
 - Example “Diabetic with only vomiting and no chest pain”
 - Risk Factors
 - Smoking, hypertension, age, family history of CAD, obesity, stress, and sedentary life style

- “The key to forming an accurate impression of chest pain remains in the clinical history. In order to make this impression, one must look at the patient’s physical presentation, listen to their story, and be able to compile and interpret all collected information. If the patient’s story/presentation, risk factors, 12 lead and vitals signs point to ACS, then EMS personnel should **consider** the patient a candidate for the Chest Pain/Possible MI Protocol until proven otherwise”
 - Addition of #3 Aseptic Technique
 - Describes procedure to reduce risk of infection
 - Antiseptic hand hygiene and proper use of PPE
 - Use of appropriate antiseptics to cleanse the area of the patients body that is in jeopardy of infection/contamination
 - Avoid contamination of equipment and medication
 - Skin should not be touched after skin antiseptics. If this happens repeat the aseptic technique for that area
 - After the insertion of any device through the patients skin the insertion site shall be covered with the appropriate dressing to prevent infection
- **Page P-11 Definitions**
 - Addition of #12 “Optional” or “Recommended”
 - “Optional”: at the discretion of the individual service (not mandatory)
 - “Recommended”: equipment remains optional but is highly recommended by the Medical Director and will become mandatory with the next protocol year update
- **Page P-13 Treatment Procedures**
 - **Airway Management**
 - Removed all references to Combitube
 - Removed “optional/recommended” from King Airway
 - Combitubes must be removed
 - King Airways are now required
 - Addition of **Blood Draw for Labs**
 - “Due to the importance of rapidly diagnosing Acute Coronary Syndrome and Cerebrovascular Accidents, blood draws will be attempted in the pre-hospital setting. It is required that all units with at least ALS capabilities stock blood tubes to include, but not limited to, “blue top” (PT/PTT INR), “purple top” (CBC), and “green top” (BMP/CMP). The tubes listed above should be filled appropriately and labeled with the patients first and last name as well as the time the sample was collected. Samples can be drawn on any call as deemed necessary; however, samples should be drawn anytime a CVA or an ACS is in question. If the IV line is considered to be in jeopardy, then an alternative site should be accessed (i.e. butterfly catheter or Vacu-tainer needle).”
 - Requires carrying of blue, purple, and green top blood tubes for ACS and CVA patients
 - Must be properly filled and labeled
 - **Continuous Positive Airway Pressure (CPAP) (Optional)**
 - Addition of “*CPAP equipment must be approved by the Medical Director*”
- **Page P-16 Use of Pharmacologic Agents to Facilitate Intubation Using Norcuron**
 - Increased the pediatric dose of Lidocaine to 1mg/kg to a max of 100mg
- **Page P-17 Use of Pharmacologic Agents to Facilitate Intubation Using Rocuronium**
 - New algorithm for PAI using Rocuronium
 - Used for Adults ONLY

- Rocuronium is NOT a required drug
- If Rocuronium is carried, it must be accompanied by one of the other paralytics in order to facilitate intubation in pediatric patients
- **Page P-18 Use of Pharmacologic Agents to Facilitate Intubation Using Succinylcholine**
 - Increased to dose of Atropine for pediatrics to 0.02mg/kg to a max of 1mg
 - Increased the pediatric dose to 1mg/kg to a max of 100mg
- **Page P-19 Nonspecific Complaint**
 - Addition of statement “If a patient has profound Nausea/Vomiting, consider **Zofran** 4mg IVP. Pediatric (2-12 years of age) dose of Zofran is 0.1mg/kg to a max of 4mg, IVP. Do not administer **Zofran** to patients < 2 years of age.”
 - Removed contact medical control for treatment of nausea
 - Now at Paramedic’s discretion as to treat any nausea in patients > 2 years old
 - Zofran replacing Phenergan
- **Page P-20 Pain Management**
 - Deleted statement about contacting medical control for pain management of pain other than orthopedic injuries
 - No longer just for orthopedic injuries. Now other pain can be treated at Paramedic’s discretion
 - #1 Fentanyl: maximum dose of Fentanyl increased to 100mcg (instead of 50mcg)
 - Paramedics now have choice of using Fentanyl or Morphine
 - Changed #3 to state: “**Zofran** 4mg, IVP may be given in conjunction with **Fentanyl or Morphine**. Pediatric (2-12 years of age) dose of Zofran is 0.1mg/kg to a max of 4mg, IVP. Do not administer **Zofran** to patients < 2 years of age.”
 - Zofran replacing Phenergan
 - Changed #4 to state: “In the event of long transport times and systolic B/P is > 90mmHg, Morphine can be administered for subsequent pain control if Fentanyl was administered first line.”
 - Changed #6 to read: “Paramedics must thoroughly document why pain management was administered. The use of pain management will be reviewed by the peer reviewer during case reviews”
- **Page P-20 Through P-21 Treatment Procedures**
 - **Peripheral Vascular Access**
 - Intraosseous (IO) infusion (Adult and Pedi) is now under Peripheral Vascular Access
 - Removed Jamshidi from Pediatric IO
 - EZ IO now only device used for pediatric IO
 - Removed “optional/recommended” from EZ IO
 - EZ IO now mandatory
- **Page P-22 Treatment Procedures**
 - ResQPOD
 - Removed “Recommended”
 - ResQPOD is now mandatory
 - Added **Taser Probe Removal** statement
 - “If an individual’s EMS department policy grants EMS staff permission to remove taser probes, the EMS individual **MAY** make a single attempt to remove the probes. If the probes appear to be embedded in the bone, in a sensitive area, or it appears that the removal will be difficult, leave in place and treat as an impelled object. To lessen the risk of a needle stick type injury some type of gripping device (hemostats or pliers) should be used to facilitate the removal. The site should then be cleaned and bandaged as appropriate.”

- Each service must decide to remove probes or not
- **Page P-23 Treatment Procedures**
 - Addition of **Uncontrolled Hemorrhage Managed with Celox (Optional)**
 - Celox is a hemostatic agent that is used to assist in bleeding control
 - Granules that assist in clot formation
 - No identified adverse reactions
 - Gives instructions for use of Celox
 1. Blot excess blood from wound with gauze pad.
 2. Immediately pour entire contents of pouch directly into the wound
 3. Apply FIRM direct pressure to wound for 5 minutes. (if bleeding persists, apply direct pressure for an additional 5 minutes.
 4. Apply pressure dressing
 5. Deliver empty package (Celox) to accepting physician
 - Instructions are printed on package
- **Page P-24 Pre-Hospital Medications and Intravenous Fluids**
 - Inhaled Medications
 - Added “Optional” to **Racemic Epinephrine**
 - IV Medications
 - Added **Zofran** 4mg/2cc (P-19, 20) (Page 11)
 - Removed Phenergan
 - Added **Rocuronium** 100mg/10cc (P-17)
 - Intravenous Fluids
 - Added **Dextrose 5% (D5W)** 100cc bag (optional)
 - Designed for administration of Amiodarone over 10 minutes
 - Addition of statement on right that states “Services under SPEMS medical direction have the option of stocking three different paralytics, Norcuron, Succinylcholine, and Rocuronium. The service has a choice whether to stock one, two, or all three paralytics. However, Rocuronium **MUST** be accompanied by one of the others listed above in order to facilitate intubation in pediatric patients.”
- **Page P-39 Triage/Transfer Decision Scheme Pre-Hospital***
 - Updated to meet current guidelines
 - Addition of box at bottom that states “*If the patient does not have a secured airway and/or is in cardiac arrest, transport to the nearest facility if justified”
- **Page P-44 Narcotics/Paralytics**
 - Removed sentence that stated paralytic usage must be submitted to the SPEMS office monthly
- **Page P-44 Medication Concentration/Storage**
 - Addition of last sentence that states: ‘It is the responsibility of the individual EMS provider to make sure that all the stocked drugs are stored as per manufactures specification. Documentation as to how drugs are stored may be requested by DSHS”
- **Page P-45 Equipment List**
 - Addition of “1- SAED with defibrillator pads/paddles to accommodate the adult and pediatric patients. However, if the BLS unit already stocks a monitor/defibrillator/SAED another SAED is not required. (If the SAED stocked does not support pediatric defibrillation a variance must be filled out through the SPEMS office and then pediatric defibrillation pads are not mandatory. The Variance must be signed by the Medical Director and a copy placed in each set of their protocols). A charged spare battery must accompany the unit as well as the

- one powering the unit. However, an alternative power source may take the place of the spare battery. (SAED with sealed 5 year batteries need not to have a spare)
 - Added to portable suction: “with charged spare battery if the unit is battery powered. However, an alternative power source may take the place of a spare battery.”
 - Removal of “Recommended/Optional” from ResQPOD
 - ResQPOD is now mandatory
 - Added to Pulse Oximeter device: “with charged spare batteries”
 - Added 2-Appropriate glucometer test strips
 - Added 2-Lancet/needle
 - Added “3ea-syringes that will accommodate all the appropriate drug volumes stocked”
 - Added “3-hypodermic needles appropriate for SQ or IM injections (if stocked)
 - Added “1-Celox (optional)”
- **Page P-46 Equipment List**
 - Added 10-Alcohol preps
 - Added King Airways
 - 1ea-King LT-D airway sizes 2 & 2.5
 - 1ea-King LTS-D airway sizes 3, 4, & 5
 - Oral Medications
 - Removed “1 bottle” from Aspirin and replaced it with “10” aspirins as the minimum number
 - Removed Combi-Tubes
 - No longer allowed to carry or use Combi-Tubes. The King airway replaces the Combi-Tube and is now mandatory. All Combi-Tubes should be removed from all units.
- **Page P-46 to P-47 Equipment List**
 - Subcutaneous Medications
 - Addition of “2-Epinephrine (1:1,000) 1mg/1cc (if stocked at the BLS level, appropriate training required)
 - Addition of statement “Services under SPEMS medical direction may carry Epinephrine Auto-Injectors to accommodate both adult and pediatric patients **AND/OR** Epinephrine (1:1000) 1mg/1cc. However, Epinephrine (1:1,000) can only be carried if all active ECA’s, EMT’s and Intermediates are appropriately trained on SQ injections (and the standing Allergic Reaction Protocol). This training must be documented including location, date, and time. Documentation must be readily accessible upon inspection”
- **Page P-47 Equipment List**
 - Addition of “with appropriate spare batteries” to Laryngoscope
 - Addition of “1ea-Extra laryngoscope bulbs (small and large)(extra bulbs not required for fiber optic laryngoscope sets)
 - Addition of “1ea- EZ IO Driver with spare batteries (EZ IO Drivers with the non-replaceable battery need not to have a spare)”
 - EZ IO is now mandatory
 - Addition of EZ IO Catheters
 - “1ea-EZ IO PD”
 - “1ea-Adult EZ IO”
 - “1ea-EZ-IO LD (optional)”
 - Addition of “2 ea.-Purple, Green, and Blue blood specimen tubes (red tube optional)”

- Added “(optional)” to Racemic Epinephrine
- **Page P-48 Equipment List**
 - Addition of “1- Cardiac monitor/defibrillator with defibrillator pads/paddles to accommodate the adult and pediatric patients (if not already stocked at the ALS or BLS level). A charged spare battery must accompany the unit as well as the one powering the unit. However, an alternative power source may take the place of the spare battery.”
 - Addition of 10- EKG electrodes
 - Addition of “1- Commercial cryothyrotomy kit **OR** a preassembled cryothyrotomy kit including but not limited to:
 - 1-Scalpel
 - 1-Hemostat
 - 1-Gauze pad
 - 1-Betadine swab”
 - Added statement to CPAP supplies that states “(CPAP equipment must be approved by Medical Director)”
 - Addition of 1-100cc D5W (optional)
 - IV Medications
 - Deleted Phenergan
 - Added Rocuronium 100mg/10cc (optional)
 - Added Zofran 4mg/2cc
 - Addition of last paragraph that states “Services under SPEMS medical direction have the option of stocking three different paralytics, Norcuron, Succinylcholine, and Rocuronium. The service has a choice whether to stock one, two, or all three paralytics. However, Rocuronium MUST be accompanied by one of the others listed above in order to facilitate intubation in pediatric patients.”
- **Page P-49 Equipment List**
 - Amended the next to last paragraph to state “If you have medical direction for any medications or invasive equipment not listed here, you must attach written authorization for the use of such. This document must be signed by the SPEMS Medical Director. However, non-invasive equipment (example: Vacu-Mattress, Morgan lenses, thermometer, etc...) does not require written authorization by medical direction or additions to the equipment list.”
 - Changed dates and signed by Medical Director
 - Must be signed by Service Director
- **Throughout Treatment Algorithms**
 - Changed the date on the bottom to read 02/01/2010
 - Removed “recommended” from ResQPOD throughout algorithms. Now mandatory
 - Removed Combitube from all algorithms
 - Removed “recommended” from all algorithms that state King Airway as they are now mandatory
- **Page 1 Burns**
 - Pain Management Box
 - Choice of Fentanyl or Morphine
 - Increased maximum dose of Fentanyl to 100mcg per single dose
 - Addition of statement “In the event of long transport times and systolic B/P is > 90mmHg, Morphine can be administered for subsequent pain control if Fentanyl was administered first line.”

- Pediatric Dose Box
 - Increased the maximum pediatric dose of Fentanyl to 100mcg per single dose
- **Page 2 Trauma**
 - Addition of “Celox (optional) if necessary” to the control bleeding box
 - Changed box at lower left #6 to state IV, NS, WO, *to achieve clinical effect*
 - Added Pediatric box that states “Fluid challenge 20cc/kg over 10 minutes. Repeat until clinical signs of adequate perfusion are present. Monitor patient for pulmonary edema.”
- **Page 3 Trauma (Continued)**
 - Pediatric Dose Box
 - Increased the maximum pediatric dose of Fentanyl to 100mcg per single dose
- **Page 6 Respiratory Distress**
 - Added “Optional” to Racemic Epi box on third box from the top left
- **Page 9 Bradyarrhythmia – Adult**
 - Increased fluid challenge amount from 250cc to “500-1000cc if Pulmonary Edema not present”
- **Page 11 *Cardiac Chest Pain or Suspected Myocardial Infarction**
 - First box on top left
 - #3: Added “Blood draw for labs (P-13)”
 - Blue, purple, and green top tubes. Red tube optional
 - #5 added “(.....Consider serial EKG if appropriate)”
 - Added #6 Transmit suspect EKGs to receiving ER (if possible)
 - Added the Atypical MI Signs and Symptoms box to the right
 - If atypical signs/symptoms present, “**Consider** patient a candidate for the Cardiac Chest Pain Protocol see ACS P-10”
 - Reminder that not all MIs have typical signs/symptoms
 - In Nitroglycerin box, added: “(rule out the use of sexual enhancement drugs)”
 - “Pain Relieved?” changed to “MI Symptoms Relieved?”
 - Changed box at the bottom to state: * Following the request of Paramedic backup the EMT-Basic may place the patient on the cardiac monitor/12lead if available. *EKGs may then be transmitted to the receiving hospital if capable.* Under no circumstances shall an EMT-I use monitor placement for interpretation/treatment. Appropriate training and testing must be documented prior to the placement of the cardiac monitor/12lead.”
 - Changed box at bottom to state “Consider Zofran, 4mg, IVP, in a patient with profound nausea and/or vomiting”
- **Page 12 Cardiogenic Shock**
 - Changed Fluid Challenge to 500-1000cc
- **Page 13 Post Resuscitation Management**
 - Changed #1 in box on lower left to state: “Fluid Challenge 500-1000cc
- **Page 16 Supraventricular Tachycardia (>150)**
 - Added to the Amiodarone box on lower right the statement “may mix into 100cc of D5W”
 - Added to the Pediatric Doses Box
 - Set max single dose of Amiodarone at 150mg. May be repeated X 2
 - Added to Amiodarone: “(Do not mix into 100cc of D5W)”
- **Page 17 V-Fib or Pulseless V-Tach – Adult**
 - Box at lower left

- Added 4th bullet point that states “If IV or IO access is obtained after ET Lidocaine was administered, administer Lidocaine 1mg/kg, IV, may repeat every 3-5 minutes to a max of 3mg/kg, IV (Should not administer more than 3 total doses whether IV/IO or ET)”
- **Page 18 V-Fib or Pulseless V-Tach – Pediatric**
 - Box at bottom
 - Added 4th bullet point that states “If IV or IO access is obtained after ET Lidocaine was administered, administer Lidocaine 1mg/kg, IV, may repeat every 3-5 minutes to a max of 3mg/kg, IV (Should not administer more than 3 total doses whether IV/IO or ET)”
- **Page 19 Ventricular Tachycardia with a Pulse**
 - Added to the Amiodarone box at mid left the statement “may mix into 100cc of D5W)”
 - Pediatric Dose Box
 - Set max single dose of Amiodarone at 150mg. May be repeated X 2
 - Added to Amiodarone: “(Do not mix into 100cc of D5W)”
- **Page 20 Ventricular Tachycardia with a Pulse (Continued)**
 - Added to the Amiodarone box at mid left the statement “may mix into 100cc of D5W)”
 - Pediatric Dose Box
 - Set max single dose of Amiodarone at 150mg. May be repeated X 2
 - Added to Amiodarone: “(Do not mix into 100cc of D5W)”
- **Page 22 Cold Exposure**
 - Addition to box at lower left: “5. ResQPOD (if patient has reached puberty)”
- **Page 23 Decreased Level of Consciousness or Neurologic Symptoms* (Non-Traumatic)**
 - First box on top left
 - Number 5 now states “Blood Draw for Labs (P-13)”
 - Blue, purple, and green top tubes. Red tube optional
 - Addition of box on right that states: “Access Cincinnati Stroke Scale *****”
 - Addition of box at bottom left center that states: “Eliminate other possibilities*****”
 - Refers you to the box at the bottom left
 - Cold exposure (Pg 22)
 - Heat exposure (Pg 25), or
 - Hypovolemia (Pg 26)
 - Cincinnati Stroke Scale Box at lower right
 - Changed last point to state “Report all positive findings to receiving hospital from the scene if possible, if not report ASAP. Document all findings in the narrative.”
 - Changed Glucagon box to state: “**If peripheral access (IV/IO) (P-20) is unobtainable administer **Glucagon**, 1mg/unit, IM (Optional)”
 - Glucagon can only be given if IV and IO unobtainable.
 - Should attempt IO and give D50 before resorting to Glucagon IM.
- **Page 25 Heat Exposure (Heat Stroke)**
 - Removed “obtain blood sample” from algorithm
- **Page 26 Hypovolemia (Non-Traumatic)**
 - Deleted the signs/symptoms of hypovolemia box
 - Box on mid left: changed #3 to state: “2 IVs, NS, WO, to achieve clinical effect.”
- **Page 28 Obstetric Emergency**
 - Remove “obtain blood sample” from algorithm

- Box on mid lower: changed to state: “2 IVs, **NS**, **WO**, *to achieve clinical effect*.”
- **Page 29 Poisoning/Overdose**
 - Removed “obtain blood sample” from algorithm
 - Changed fluid challenge box to state: “Fluid Challenge, NS, 250cc may repeat if needed for clinical effect”
- **Page 30 Seizures***
 - Removed “obtain blood sample” from algorithm
 - Changed box at top right to state: “***If peripheral access (P-20) is unobtainable administer **Glucagon**, 1mg/unit, IM (Optional)*”
 - Glucagon can only be given if IV and IO unobtainable.
 - Should attempt IO and give D50 before resorting to Glucagon IM.

CHANGES TO SUPPLEMENT

- **Drug Index**
 - Addition of Table of Contents
 - Drugs placed in alphabetical order
 - Addition of new drugs to drug index
 - Rocuronium
 - Zofran
 - Phenergan removed
 - Changed all dosages to correspond with current Protocols
- **Drug Charts (Adult and Pediatric)**
 - Drugs placed in alphabetical order
 - Addition of new drugs to drug index
 - Rocuronium
 - Zofran
 - Phenergan removed
 - Changed all dosages to correspond with current Protocols
- **Drip Rate Formulas Page Added**
 - Formulas and examples for:
 - Adult Lidocaine
 - Pedi Lidocaine
 - Dopamine
 - Adult Amiodarone