

SPEMS Protocol Changes
EMT-Intermediate (EMT-I)
2/1/11 to 1/31/12

PROTOCOL CHANGES

- **Every Page**
 - Changed dates at bottom of each page
- **Cover Page**
 - Signature with February 1, 2011 date
- **Page P-2: Table of Contents**
 - Updated to reflect additions and current page numbers
- **Page P-4 Medical Control Authorization**
 - Changed wording in 3rd paragraph to read “.....i.e.: IM injections....”
 - Changed #6 to state run report form”*software*”
- **Page P-5 Medical Control Authorization**
 - Changed #8 to “Intramuscular Epinephrine
 - Epi is now to be given IM instead of SC
 - Added skill of “3 Intramuscular Epinephrine injections (if currently carried by your service)” to be checked off on
 - Applies only if your service does not carry Epi-Pens
- **Page P-5 Procedural Guidelines for Medical Control Authorization**
 - Second sentence, now reads “ Failure to *maintain* appropriate documentation may result in the EMS technician’s medical control authorization being suspended”
- **Pages P-9 Through P-13 Definitions**
 - Several sections relocated into this Definitions section
- **Page P-9 Definitions**
 - Addition of #3 Adult Refusal of Transport
 - Section relocated to Definition Section
 - No changes to content
- **Page P-10 Definitions**
 - Addition of #10 Duty Status-Geographical Area
 - Section relocated to Definition Section
 - No changes to content
 - Addition of #11 Errors/Deviation
 - Section relocated to Definition Section
 - No changes to content
- **Page P-11 Definitions**
 - Addition of #15 Medication Concentrations/Storage
 - Section relocated to Definition Section
 - No changes to content
 - Addition of #17 Non-EMS Licensed/Certified Personnel
 - Section relocated to Definition Section
 - No changes to content
 - Addition of #18 No Transport Codes
 - Section relocated to Definition section
 - Deleted “5 page report” from the documentation requirement

- **Page P-12 Definitions**

- Addition of # 20 Patient's Physician On Scene
 - Section relocated to Definition Section
 - No changes to content
- Addition of #21 Request Assistance from Receiving Area's ALS Service
 - Section relocated to Definition Section
 - Addition of bullet point that states "Patients who are potential candidates for thrombolytic or PCI therapy and transport time is > 25minutes."
- Addition of #22 Transportation Guidelines
 - Section relocated to Definition Section
 - No changes to content

- **Page P-13 Definitions**

- Addition of # 23 Transportation of Minors
 - Section relocated to Definition Section
 - No changes to content
- Addition of # 24 Unknown Physician on Scene
 - Section relocated to Definition Section
 - No changes to content

- **Page P-14 Treatment Procedures**

- Airway Management
 - Addition of 5th sentence in 3rd paragraph that states "An ET tube introducer (i.e. Bougie) may be used, if needed, to facilitate endotracheal intubation at any time."
 - Allows for an introducer to aid in intubation
 - Such aids are optional NOT mandatory
 - Addition of last sentence of the 3rd paragraph that states "An ET tube introducer (i.e. Bougie) **CAN NOT** be passed through a King airway in order to endotracheally intubate."

- **Page P-15 Treatment Procedures**

- Addition of Chemical Sedation/Restraint
 - Relocated to treatment procedures
 - No changes to content
- Nonspecific Complaint
 - Addition of last 2 sentences that state "If a patient has profound Nausea/Vomiting, consider administering **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."
 - EMT-Intermediates may now give Zofran for profound nausea for patients 2 years old and older

- **Page P-16 Treatment Procedures**

- Intraosseous Infusion-Adult
 - Last part of first paragraph now states "The preferred site for the EZ-IO is the anterior surface of the proximal tibia. However, the proximal humerus may be utilized as a secondary site if one or more of the contraindication listed below prevents cannulization into the proximal tibia. The EZ-IO must be used as per manufacturer instructions. The EZ-IO must be secured with an EZ-STABILIZER as per manufacturer instructions."
 - Allows for placement of EZ-IO into proximal humerus if insertion into the anterior proximal tibia is contraindicated
 - Requires that the EZ-IO must be used according to the manufacturer's instructions

- Requires that ALL EZ-IO catheters be stabilized with the EZ-STABILIZER
 - This device is available from dealers who sell EZ-IO catheters
 - Changed Contraindication #1 to read “*Previous orthopedic procedure (previous surgery at or around the insertion site, previous IO within 24 hrs.)* or injury, or soft tissue injury to the insertion site.
- **Page P-19 Treatment Procedures**
 - Uncontrolled Hemorrhage Manage with a Hemostatic Agent
 - Changed from “Uncontrolled Hemorrhage Managed with Celox (Optional)”
 - Addition of “A. **QUICKCLOT (optional) (Must be the heat free formulas as noted below)**
 - Combat Gauze, is a 3in X 4yrd roll of heat free hemostatic gauze
 - ACS+, is a heat free hemostatic sponge”
 - Addition of “B. **CELOX (optional)(will be discontinued on 2/1/2012)** is Chitosan-base and its granules assist in clot formation. It has no identified adverse reaction.”
 - Quickclot and/or Celox are optional
 - After 2/1/2012, only Quickclot will be allowed to be carried; but it will remain optional
- **Page P-20 Pre-Hospital Medications**
 - Under Inhaled Medications: added “Optional” to Levalbuterol (Xopenex) 1.25mg/3ml
 - Removal of Subcutaneous Medications
 - Intramuscular Medications
 - Epinephrine 1:1,000 1mg/1cc moved under IM medication
 - Epi is now given IM rather than SC
 - Updated the paragraph just below the IM Medications to state “Services under SPEMS medical direction may carry Epinephrine Auto-Injectors to accommodate both adult and pediatric patients **AND/OR** Epinephrine (1:1,000) 1mg/1cc. However, Epinephrine (1:1,000) can only be carried if all active ECA’s, EMT’s and Intermediates are appropriately trained on IM injections (and the standing Allergic Reaction Protocol). This training must be documented including location, date, and time. Documentation must be readily accessible upon inspection.”
 - Under IV Medications
 - Added “**Ondanestron (Zofran)** 4mg/2cc (P-15) (Page 8)”
- **Page P-23 Through P-29 Do Not Resuscitate Orders**
 - Updated to reflect new form and procedures
 - Addition of 4th line: “Note: There is now a new TDSHS form for DNRs. Either the new or the old form is acceptable. A copy of both forms is on subsequent pages.”
 - Addition of #1 A form is considered valid if:
 - 1. One of the six sections have been filled out and signed appropriately. **Note:** Electronic signatures are acceptable. (Only one completed section is required)
 - a. Section A: Declaration of the adult person
 - b. Section B: Declaration by legal guardian, agent or proxy on behalf of the adult person is incompetent or otherwise incapable of communication
 - c. Section C: Declaration by a qualified relative of the adult person who is incompetent or otherwise incapable of communication
 - d. Section D: Declaration by physician based on directive to physicians by a person now incompetent or otherwise incapable of communication
 - e. Section E: Declaration on behalf of the minor person
 - f. Section F: Directive by two physicians on behalf of the adult, who is incompetent or unable to communicate and without guardian, agent, proxy or

relative. (**Note:** if this section is utilized, no signature of witnesses or notary are required)

- Addition of #3, A form is considered valid if:
 - 3. Signatures of two witnesses or notary are present; except when section F is utilized (No witness or notary signature is required for Section F). **Note:** Electronic signatures are acceptable
 - Copies of both the new form and older forms are included (front and back) on pages P-26 through P-29
 - Summary
 - Either the new form or old form is acceptable
 - Electronic signatures are now allowed
 - Only one of the 6 sections must be filled out on the new forms
 - Witness signatures or a notary signature is still required
 - Refer to the directions for the new form on page P-29 for clarification
- **Page P-30 Cardiac Triage/Transport Decision Scheme**
 - New Section
 - References the Regional Cardiac Plan
 - Designed to provide guidance for transport of cardiac patients
 - Patients with ACS or confirmed STEMI should be transported to “PCI” (Percutaneous Coronary Intervention) Capable Facilities or to the Closest Appropriate Acute Care Facility.
 - If an adequate airway cannot be established and/or maintained or if the patient goes into cardiac arrest, has malignant cardiac dysrhythmias, or is acutely unstable, the patient should be transported to the **NEAREST ACUTE CARE FACILITY**.
 - Medical Control may order bypass in any situation as appropriate, such as when a facility is unable to meet hospital resource criteria, or when a patient is in need of specialty care.
 - If expected transport time is excessive (>25 minutes) activation of air transport should be considered.
 - If there is a question on whether or not to bypass a facility, on-line medical control should be contacted for the final decision.
 - Review this section and www.spems.org for more details
- **Page P-31 Stroke Triage/Transport Decision Scheme**
 - New Section
 - References the Regional Stroke Plan
 - Designed to provide guidance for transport of stroke patients
 - Patients who meet triage criteria for activation of the Regional Stroke Plan should be transported to the **CLOSEST HIGHEST DESIGNATED STROKE FACILITY** or the **CLOSEST APPROPRIATE ACUTE CARE FACILITY** according to the plan guidelines with special consideration under the following circumstances:
 - If an adequate airway cannot be established and/or maintained or if the patient goes into cardiac arrest, has malignant cardiac dysrhythmias, or is acutely unstable, the patient should be transported to the **NEAREST ACUTE CARE FACILITY**.
 - Medical Control may order bypass in any situation as appropriate, such as when a facility is unable to meet hospital resource criteria, or when a patient is in need of specialty care.
 - If expected transport time is excessive (>25 minutes) activation of air transport should be considered.
 - If there is a question on whether or not to bypass a facility, on-line medical control should be contacted for the final decision.

- TRANSPORTATION SHOULD BE BASED ON THE TIME OF ONSET OF SYMPTOMS
 - Patients with an onset of **STROKE SYMPTOMS < 3 HOURS** should be taken to the highest designated stroke facility for treatment and evaluation for interventional care
 - Patients with an onset of stroke **SYMPTOMS OCCURRING >3 HOURS** should be transported to the nearest acute care facility for initial diagnosis and treatment. Similarly, a non-designated facility may be appropriate if the above standards of care can be provided.
- Review this section for more details
- **Page P-32 and P-33 Trauma Triage Criteria for EMS Facility Bypass and Transfer**
 - Addition of the word “Trauma” to the title as this refers to trauma patients
- **Page P-37 Trauma Triage/Transfer Decision Scheme Pre-Hospital**
 - Addition of the word “Trauma” to the title as this refers to trauma patients
- **Page P-39 Equipment List**
 - Hypodermic needles appropriate for *IM injections* replaces SC injections (3 required)
 - Added “Quick Clot (must be heat free formula) (Optional)”
- **Page P-40 Equipment List**
 - Inhaled Medications
 - Added “Optional” to Levalbuterol (Xopenex) 1.25mg/3ml
 - Xopenex is now an optional drug
 - Removal of Subcutaneous Medications
 - Moved Epinephrine 1:1,000 1mg/1cc under Intramuscular Medications
 - Epi is now given IM rather than SC
- **Page P-41 Equipment List**
 - First paragraph changed to reflect required training on IM injections (rather than SC injections) prior to carrying epinephrine 1:1,000 for IM injections
 - Under ALS & ALS Capable Units:
 - Added “1ea- ET tube introducer (i.e. Bougie) (optional)
 - Added “1ea- EZ-Stabilizer”
- **Page P-42 Equipment List**
 - Under IV Medications:
 - Increased the minimum number of Dextrose 50%, 25g/50cc to 2
 - Added 2- Ondansetron (Zofran) 4mg/2cc
 - Signature of Medical Director
 - Dated 02/01/2011
 - Service Director MUST sign all copies on units
- **Throughout Treatment Algorithms**
 - Changed the date on the bottom to read 02/01/2011
- **Page 2 Trauma**
 - Box changed on mid left to state “Control bleeding with a hemostatic agent (optional) if necessary (P-19)”
 - Allows for Celox or Quick Clot if used
- **Page 6 Respiratory Distress**
 - Xopenex is now optional
 - Xopenex is removed from flow chart, but may be substituted for Albuterol
 - Box added to top left that states: “Xopenex (optional), 1.25mg via nebulizer, may be substituted for Albuterol anywhere throughout this algorithm”
 - Allows for user preference of Xopenex or Albuterol

- **Page 8 Cardiac Chest Pain or Suspected Myocardial Infarction**
 - Addition of box at top right that states “**If chest pain continues after correcting cardiogenic shock return to this algorithm.”
 - Removed “Initiate Transport” from top box
 - Addition of box on left (below nitro box) that states:
 - “1. Reference the Cardiac Triage/Transport Scheme (P-30)”
 - “2. Initiate Transport”
 - Addition of statement in box just below the nitro box on left that states “1. Reference the Cardiac Triage/Transport Scheme (P-30)”
 - Addition of box at the bottom that states “Consider Zofran, 4mg, IVP, in a patient with profound nausea and/or vomiting”
- **Page 11 Allergic Reaction**
 - Addition of the box on right that states “Xopenex (optional), 1.25mg via nebulizer may be substituted for Albuterol anywhere throughout this algorithm”
 - Epinephrine box on middle left changed to read “Epinephrine (1:1,000) 0.3mg, *IM*, Using Auto-Injector or administer 0.3mg (0.3cc), *IM* if properly trained”
 - Epi 1:1,000 now given *IM* rather than *SC*
- **Page 13 Decreased Level of Consciousness (Non-Traumatic)**
 - Removed neurological symptoms from title
 - Added motor or sensory deficit box at upper middle to refer to the Stroke/TIA algorithm
 - Removed Cincinnati Stroke Scale box
 - Stroke and TIA management is addressed under a new algorithm on Page 21
 - Addition of box at upper center which states “Is patient taking any of the following?”
 - MS Contin
 - Oxycontin
 - Diluadid
 - Fentanyl/Duragesic Patch
 - If patient is taking any of these meds, then the dose of Narcan is decreased
 - Box on middle left states “To prevent acute withdrawal syndrome administer Narcan in increments of 0.1mg every 2-3 minutes until clinical effect noted.”
 - Dosage is decreased for these patients to prevent withdrawal
 - Addition of box on left that states “** When administering high dose Narcan to an opiate dependent patient the benefit must outweigh the risk (i.e. resp <10/min, SBP <90mmHg, unable to control airway ect...).”
 - (Updated Addendum) In Glucagon box on lower right “Do Not establish EZ-IO unless BGL < 50mg/dL and/or pt condition warrants”.
 - EZ-IO should only be established for profound hypoglycemia or critical patient, otherwise use Glucagon or Oral Glucose
 - In Pediatric Dose Box:
 - Addition of **Dextrose 12.5% (D12.5W)**, 5cc/kg to all pediatrics < 1 yoa. (**D50W** may be diluted 1:2 with NS to achieve **D12.5W**)”
 - Only for kids < 1 year of age
 - Dilute 1 part of D50 with 2 parts NS
- **Page 19 Poisoning**
 - Removed “Overdose” from title
- **Page 20 Seizures**
 - Addition of box at bottom right that states:
 - “Paramedic backup must be requested for all pregnant patients that are seizing or have had a seizure prior to EMS arrival in order to treat for Eclampsia.”

- “Eclampsia is defined as a presentation of an unexplained seizure or convulsion in the setting of the signs and symptoms of Pre-Eclampsia. Not all patients will be clinically diagnosed with Pre-Eclampsia. It is considered a complication of severe Pre-Eclampsia. It typically occurs during or after the 20th week of gestation or in the postpartum period.”
 - (Updated Addendum) In Glucagon box on lower center “Do Not establish EZ-IO unless BGL < 50mg/dL and/or pt condition warrants”.
 - EZ-IO should only be established for profound hypoglycemia or critical patient, otherwise use Glucagon or Oral Glucose
 - In Pediatric Dose Box:
 - Addition of **Dextrose 12.5% (D12.5W)**, 5cc/kg to all pediatrics < 1 yoa. (**D50W** may be diluted 1:2 with NS to achieve **D12.5W**)”
 - Only for kids < 1 year of age
 - Dilute 1 part of D50 with 2 parts NS
- **Page 21 Stroke/TIA or Neurological Deficit**
 - New algorithm
 - Stresses the Cincinnati Stroke Scale and early notification (from scene if possible) of receiving facility for positive CSS
 - References the Stroke Triage Scheme (P-31)
 - Narcan NOT given in this algorithm
 - Defines Neurological Deficit on bottom box
 - 1. Any Sudden Motor or Sensory Deficit
 - 2. Sudden confusion, trouble speaking or understanding
 - 3. Sudden difficulty seeing in one or both eyes
 - 4. Sudden trouble walking, coordination, or focal weakness
 - If possible inquire about the patient’s baseline neurological state. Chronic neurological deficits do not warrant rapid transport to a Stroke Center. ALWAYS err on the side of caution if questionable.
 - Review this algorithm for more details

CHANGES TO SUPPLEMENT

- **Table of Contents**
 - Page numbers changed
 - D50 changed to Dextrose, 12.5%, 25%, and 50%
 - Addition of Calcium Gluconate and Mag Sulfate
- **Addition of new drugs to drug index**
 - Calcium Gluconate Page S-10
 - Magnesium Sulfate Page S-21
 - IV preparation instructions included for 250cc and 500cc
- **Dextrose (Page S-12) changed to include D12.5W, D25W, and D50W**
 - Mixing procedure and dosages
- **Epinephrine 1:1,000 (Page S-14)**
 - Route changed from SC to IM
- **Adult Drug Charts (Pages S-35 to S-38)**
 - Divided into 2 sections
 - For weights up to 100kg
 - For weights of 110kg and above
 - Addition of new drugs to drug index
 - Calcium Gluconate
 - Magnesium Sulfate

- Loading dose
- Maintenance dose (IV drip) mixing in 250cc
- Maintenance dose (IV drip) mixing in 500cc
- Route for Epi 1:1,000 changed from SC to IM
- Drips for Lidocaine corrected to gtt/min
- **Pediatric Drug Charts (Pages S-39 and S-40)**
 - Dextrose divided into D12.5W and D25W
 - Route for Epi 1:1,000 changed from SC to IM
- **IV Drip Rate Formulas and Examples (Pages S-41 and S-42):**
 - Inclusion of Magnesium Sulfate example for 250cc bag of NS
 - Inclusion of Magnesium Sulfate example for 500cc bag of NS