

SPEMS Protocol Changes
EMT-Paramedic (EMT-P)
2/1/12 to 1/31/13

PROTOCOL CHANGES

- **Every Page**
 - Changed dates at bottom of each page
- **Cover Page**
 - Signature with February 1, 2012 date
- **Page P-2: Table of Contents**
 - Updated to reflect additions and current page numbers
 - Deleted PEA Algorithm
 - Combined PEA and Asystole (Adult)
- **Page P-4 Medical Control Authorization**
 - Addition to number 1 that states “(A current National Registry card can NOT be used in the place of a current TDSHS certification)”
 - All personnel operating under the SPEMS Protocols MUST have a current State (TDSHS) certification
- **Page P-16 Treatment Procedures**
 - Under “Blood Draw for Labs”, addition of “(or their equivalent)”
 - Allows for local hospital preference on which tubes are used
- **Page P-17 Treatment Procedures**
 - Continuous Positive Airway Pressure (CPAP) (Optional)
 - Removed pneumonia, COPD, and CHF from CPAP indications from 1st paragraph
 - 1st paragraph now reads that CPAP can be used “in patients who suffer from shortness of breath caused by any condition resulting in pulmonary edema (Rales/Crackles present)”
 - Pulmonary edema must be present to indicate use of CPAP
- **Page P-18 Treatment Procedures**
 - Addition of CO2 Continuous Waveform Capnography
 - New section
 - Provides some guidance for use of continuous waveform capnography
- **Page P-20 Use of Pharmacologic Agents to Facilitate Intubation, Using Norcuron**
 - Changed wording on box above “Continue to Treat, Monitor, & Transport” to state:
 - 1. Continue to provide pain management for patients that **MAY** have pain/agitation. Administer Fentanyl, 5mcg/kg, IVP, to a max of 100mcg, per single dose. May be repeated once if needed. Contact Medical Control for additional pain management if needed.”
 - Provides greater guidance for management of pain and agitation
 - Defines Fentanyl as the analgesic to be used
- **Page P-21 Use of Pharmacologic Agents to Facilitate Intubation, Using Rocuronium**
 - Changed wording on box above “Continue to Treat, Monitor, & Transport” to state:
 - 1. Continue to provide pain management for patients that **MAY** have pain/agitation. Administer Fentanyl, 5mcg/kg, IVP, to a max of 100mcg, per single dose. May be repeated once if needed. Contact Medical Control for additional pain management if needed.”
 - Provides greater guidance for management of pain and agitation
 - Defines Fentanyl as the analgesic to be used

- **Page P-22 Use of Pharmacologic Agents to Facilitate Intubation, Using Succinylcholine**
 - Changed wording on box above “Continue to Treat, Monitor, & Transport” to state:
 - 1. Continue to provide pain management for patients that **MAY** have pain/agitation. Administer Fentanyl, 5mcg/kg, IVP, to a max of 100mcg, per single dose. May be repeated once if needed. Contact Medical Control for additional pain management if needed.”
 - Provides greater guidance for management of pain and agitation
 - Defines Fentanyl as the analgesic to be used
- **Page P-23 through P-24 Treatment Procedures**
 - Addition of Intranasal Medication Administration
 - New procedure for Paramedics
 - Paramedics **MUST** be trained in procedure with documentation of proficiency
 - Indications for IN med administrations are Adult and Pediatric Seizures, Adult and Pediatric Pain Management, Adult and Pediatric Altered LOC with respiratory compromise, and Chemical Sedation.
 - Relative contraindications are: epistaxis, facial trauma, nasal congestion, discharge or recognized nasal abnormality, and destruction of nasal mucosa from past surgeries or cocaine abuse
 - Procedure is listed on Page P-24
 - General Comments section explains much more (Page P-24)
 - Drugs that can be given IN are Narcan, Fentanyl, and Versed
 - IN doses and repeat doses are listed per indication
 - **THIS SECTION SHOULD BE READ CAREFULLY AND THOROUGHLY UNDERSTOOD**
- **Page P-25 Pain Management**
 - Addition of #3 that states “**NOTE:** For patients that have been intubated using pharmacologic agents (PAI) that **MAY** have pain/agitation, Adminster **Fentanyl**, 5mcg/kg, IVP, to a max of 100mcg per single dose. May be repeated once if needed. Contact Medical Control for additional pain management if needed. See Pages P-20, P-21, P-22”
 - If a patient has been intubated using PAI the treatment for pain/agitation is **Fentanyl** only
- **Page P-28 Uncontrolled Hemorrhage Managed with a Hemostatic Agent**
 - Removed Celox
 - If a service carries a hemostatic agent, that agent must be Quickclot
- **Page P-29 Pre-hospital Medications and Intravenous Fluids**
 - Addition of Intranasal Medications list
 - “**Fentanyl** 100mcg/2cc (P-23)(Page 1, 3)”
 - “**Midazolam (Versed)**, 10mg/2cc (P-17, 23)(Page 30)”
 - “**Naloxone (Narcan)**, 2mg/2cc (P-15) (Page 13)”
 - Addition of **Lactated Ringers (LR)** under IV Fluids
 - Under IV Medications, addition of “Epinephrine (1:1,000), 1mg/1cc (Page 9)”
 - Refers to Epi drip for Bradyarrhythmia-Adult
 - **NOTE:** Epi 1:1,000 should **NEVER** be administered IV except as a drip
- **Page P-48 Equipment List**
 - Changed “2 Long spine boards with straps” to “2-Full spinal immobilization devices with straps”
 - Allows for use of flexi, vacuum mattresses, etc.
 - **Caution:** MOI, patient condition, and patient position/location must be considered to select the most appropriate immobilization device

- Changed Nasal airways to “1ea-Nasal airway (20fr through 36fr)”
- Changed Oral airways to “1ea-Oral airway (#1 through #6)”
- Removed Celox
- Addition of “1-Nasal-Mucosal Atomization Device (MAD)”
- Decreased number of triangular bandages from 12 to 2
- **Page P-49 Equipment List**
 - Addition of “1-Working flashlight”
 - Reorganized BLS medication list
 - Removed headings of Inhaled, Oral, Sublingual, and Intramuscular
 - All meds are in alphabetical order
 - Addition of “2-Naloxone (Narcan) 2mg/2cc” to BLS medications
- **Page P-50 Equipment List**
 - Removed “(Optional)” from ET tube introducer (i.e. Bougie)
 - Addition of “1ea-ET tube introducer (i.e. Bougie) (adult and pediatric)
 - Removed “(Optional)”
 - All ALS services must carry at least one pedi and one adult
 - Addition of “1-Carbon Dioxide monitor or detector (if a Carbon Dioxide detector (i.e. Easy Cap) is solely utilized an adult and pediatric must be stocked)”
 - IV Supplies
 - Addition of “4-1000cc Lactated Ringers or equivalent volume”
 - 4,000cc of LR must be carried
 - LR will be used for trauma and burn patients
 - Can carry 500cc or 1,000cc bags so long as volume totals at least 4,000cc
 - Changed NS to state “4-1000cc Normal Saline or equivalent volume”
 - Can carry 500cc or 1,000cc bags so long as volume totals at least 4,000cc
 - Added “or their equivalent” to the blood tube requirement
 - Allows for local hospital preference on which blood tubes are used
- **Page P-51 Equipment List**
 - Addition of “1-100cc or 250cc Normal Saline (For IV mix)”
 - Reorganized ALS and MICU medication lists
 - Removed headings of Inhaled, Oral, Sublingual, Intramuscular, and Premixed IV
 - All meds are in alphabetical order
 - Addition of “(all levels combined)” next to Epinephrine 1:1,000
 - Minimum of 4 Epinephrine 1:1,000 must be carried on all MICU units
 - This takes into account the listing of Epinephrine at the BLS level
 - 2 for BLS plus 2 for MICU = Total of 4
 - Removed Naloxone from ALS medication list
 - Now in BLS Medication List
- **Page P-52 Equipment List**
 - Removed the statement about the number of Epi 1:1,000 that must be carried
 - Addressed on Page P-51 with “(all levels combined)” statement
 - Signature of Medical Director
 - Dated 02/01/2012
 - Service Director MUST sign all copies on units
- **Throughout Treatment Algorithms**
 - Changed the date on the bottom to read 02/01/2012
- **Page 1 Burns**
 - IV fluid changed from NS to LR
 - Addition of IN page reference to pain management box in center
 - “(For intranasal administration of Fentanyl refer to P-23)”

- **Page 2 Trauma**
 - First box changed to state “1. Control Cervical Spine (if appropriate)”
 - Changed spinal immobilization throughout the algorithm to “Full Spinal Immobilization Device”
 - Devices other than a long spine board may be used to immobilize spine such as flexy, vacuum mattress, etc.
 - **Caution:** MOI, patient condition, and patient position/location must be considered to select the most appropriate immobilization device
 - IV fluid changed from NS to LR
 - CPR box, on lower right, changed, to state “Begin CPR (2010 guidelines)”
 - CPR should be performed to the 2010 guidelines rather than the 2005 guidelines
- **Page 3 Trauma (Continued)**
 - Changed spinal immobilization throughout the algorithm to “Full Spinal Immobilization Device”
 - IV fluid changed from NS to LR
 - Addition of IN page reference to pain management box at the bottom
 - “(For intranasal administration of Fentanyl refer to P-23)”
- **Page 4 Foreign Body Airway Obstruction**
 - 2005 CPR guidelines changed to 2010 guidelines
- **Page 7 Asystole or Pulseless Electrical Activity-Adult**
 - Asystole and PEA now combined for Adult as well as pediatrics
 - PEA algorithm removed
 - Algorithm flows accordingly
 - CPR guidelines indicate the 2010 guidelines
 - Atropine removed from this algorithm
 - Atropine is not given for asystole or slow PEA per 2010 ACLS guidelines
 - Emphasis is on high quality CPR and identifying possible causes (6-H’s and 5-T’s)
 - 3rd box from bottom states “Withhold IV medications in patients with core tem <86° F.”
 - If a hypothermic patient is in aystole or PEA, IV cardiac drugs should NOT be administered, instead, treatment should focus on high quality, continuous CPR and rapid transport
- **Page 8 Asystole or Pulseless Electrical Activity-Pediatric**
 - 1st box re-worded
 - Removed “ABCs”
 - Changed #1 CPR to state “(2010 Guidelines)”
 - Removed #7 “Intubate Patient”
 - Intubation is addressed further in algorithm
 - Addition of the first “Rhythm Change or Pulse Present? box
 - Addition of 3rd box from bottom that states “Withhold IV medications in patients with core tem <86° F.”
 - If a hypothermic patient is in aystole or PEA, IV cardiac drugs should NOT be administered, instead, treatment should focus on high quality, continuous CPR and rapid transport
- **Page 9 Bradyarrhythmia-Adult**
 - Addition of “Heart rate typically < 50 / minute” to title
 - Changed signs/symptoms box on top left
 - 2nd point states “Signs/Symptoms of Shock” rather than “Signs/Symptoms of Hypoperfusion”
 - 3rd point states “Ischemic Chest Pain” rather than “Chest Pain”
 - 4th point states “Acute Heart Failure” rather than “Dyspnea”

- 5th point states “Acute Decreased LOC” rather than “Decreased LOC”
 - Replaced Dopamine drip box, on lower left with Epinephrine drip
 - If bradycardia is resistant to Atropine and/or pacing, an Epinephrine drip is to be administered
 - Drip is run at 2-10mcg/min, IV infusion
 - Addition of **Epinephrine Drip** calculation box at bottom center
- **PEA Algorithm Removed from Protocols**
 - Page 14 of OLD protocols
 - PEA combined with Asystole on Page 8
 - Page numbers for remaining algorithms will be different from previous versions
- **Page 16 Ventricular Fibrillation or Pulseless Ventricular Tachycardia-Adult**
 - Changed first box
 - “ABCs” removed
 - CPR guidelines changed to 2010 guidelines
 - Addition of “7. IV/IO NS****” This was moved from a lower box to the first box
 - Addition of box on top left that states “Do not perform more than one defibrillation on a hypothermic patient and withhold IV medications in patients with a core temp < 86° F”
 - If a hypothermic patient is in V-Fib or Pulseless V-Tach:
 - The patient should not be defibrillated more than one time, and
 - IV cardiac drugs should NOT be administered,
 - Instead, treatment should focus on high quality, continuous CPR and rapid transport
- **Page 17 Ventricular Fibrillation or Pulseless Ventricular Tachycardia-Pediatric**
 - Changed first box
 - “ABCs” removed
 - CPR guidelines changed to 2010 guidelines
 - Addition of “7. IV/IO NS****” This was moved from a lower box to the first box
 - Addition of box on top left that states “Do not perform more than one defibrillation on a hypothermic patient and withhold IV medications in patients with a core temp < 86° F”
 - If a hypothermic patient is in V-Fib or Pulseless V-Tach:
 - The patient should not be defibrillated more than one time, and
 - IV cardiac drugs should NOT be administered,
 - Instead, treatment should focus on high quality, continuous CPR and rapid transport
- **Page 23 Cold Exposure**
 - Removed cardiac arrest references
 - If a hypothermic patient is in cardiac arrest the algorithm will send you to the appropriate algorithm
 - Moved references to remove wet clothing and wrap in blankets to the reference box at the bottom
- **Page 24 Decreased LOC**
 - Addition of box at middle right that states “*If the patient presents agitated/combatative and is deemed a threat to the crew or themselves refer to Chemical Sedation (P-17)”
 - Addition of Stadol to list of opiates to inquire about
 - To prevent florid withdrawals
 - Addition of box to middle left that states “****If a patient is respiratory compromised and a needleless delivery system is desired, administer **Naloxone (Narcan)**, 2mg, IN, repeat once in 5 minutes if necessary (P-23)”
 - In Pediatric Dose box, IV dosage of Narcan increased to “0.1mg/kg, IV, to a max of 2mg”
 - Was 0.05mg/kg to a max of 2mg

- Addition to Pediatric Dose box of “Narcan, 0.1mg/kg, IN, up to a max of 2mg”
- **Page 27 Hypovolemia (Non-Traumatic)**
 - Addition of possible causes box on top right
 - Vomiting, Diarrhea, Bloody/Dark Stool, Abdominal Pain, or Possible Diabetic Hyperglycemic State
 - Removed the CPR box that was at the bottom of the page
- **Page 28 Neonatal Resuscitation**
 - 2005 CPR guidelines changed to 2010 guidelines
- **Page 29 Poisoning/Overdose**
 - Added “Overdose” to title
 - Changed first box to state “Does the patient have an altered mental status?” instead of “Patient conscious with intact gag reflex?”
- **Page 30 Seizures**
 - Addition to box at right “**If venous access is delayed or impossible” to state
 - “**Midazolam (Versed)** 0.2mg/kg,IN, to a max of 5mg, may repeat in 5-10 minutes at 0.1mg/kg, IN, to a max of 2.5mg per dose. (P-23)”
 - Allows for Paramedic discretion of using Versed IM, Versed IN, or Valium rectally
 - Addition to Pediatric Dose box at bottom
 - **Midazolam (Versed)** 0.2mg/kg, IN, to a max of 5mg, may repeat in 5-10 minutes at 0.1mg/kg, IN, to a max of 2.5mg per dose”

CHANGES TO SUPPLEMENT

- **Table of Contents**
 - Date of 2/1/2012 throughout
 - Updated page numbers
- **Drug Index**
 - **Page S-8 Atropine:** Removed aystole and PEA from indications
 - **Page S-13 Dopamine:** Removed bradycardia from indications
 - **Page S-15 Epinephrine Drip:** New page
 - **Page S-17 Fentanyl:** Added IN (Intranasal) doses
 - **Page S-20 Lactated Ringers:** New Page
 - **Page S-25 Narcan:**
 - Added IN (Intranasal) doses
 - Changed Pedi Narcan dose to 0.1mg/kg up to 2mg
 - **Page S-28 Normal Saline:**Removed “Trauma” and “Burns” from indications
 - **Page S-36 Versed:** Added IN (Intranasal) doses
- **Adult Drug Charts (Pages S-38 to S-42)**
 - Deleted Atropine for PEA and Asystole
 - Added Epinephrine Drip Chart
 - For mixture of 1mg of 1:1,000 in 100cc of NS
 - For mixture of 1mg of 1:1,000 in 250cc of NS
 - Added Fentanyl via intranasal (MAD)
 - Added Narcan via intranasal (MAD)
 - Added Versed via intranasal (MAD) for Seizures
 - Added Versed via intranasal (MAD) for Seizures, Repeat Dose
 - Added Versed via intranasal (MAD) for sedation
- **Pediatric Drug Charts (Pages S-43 to S-45)**
 - Added Epinephrine Drip Chart
 - For mixture of 1mg of 1:1,000 in 100cc of NS

- For mixture of 1mg of 1:1,000 in 250cc of NS
 - Added Fentanyl via intranasal (MAD)
 - Added Narcan via intranasal (MAD)
 - Added Versed via intranasal (MAD) for Seizures
 - Added Versed via intranasal (MAD) for Seizures, Repeat Dose
 - Added Versed via intranasal (MAD) for sedation
- **IV Drip Rate Formulas and Examples (Pages S-46 to S-47)**
 - Added Examples of Epi Drip for 100cc and 250cc bags (Page S-46)