SPEMS Protocol Changes
Paramedic (EMT-P)
3/1/19 to 2/29/20

PROTOCOL CHANGES

- **Every Page**
  - Changed dates at bottom of each page
- **Cover Page**
  - Signature with March 1, 2019 date
  - Protocols will expire February 29, 2020
- **Page ii. Authorized Services**
  - New Page
  - Lists all services authorized to utilize SPEMS Protocols
  - Required by TDSHS
- **Page P-2 Table of Contents**
  - Page numbers adjusted for changes
  - Reflects addition of new Fever/Sepsis Algorithm on Page 27
- **Page P-16 Blood Draw for Labs**
  - Added Specific order that the blood tubes should be drawn. (Blue, Red, Green, Purple) Recommended by the Stroke and Cardiac committee (National Standard)
- **Pages P-20, P-21, and P-22 Use of Pharmacologic Agents to Facilitate Intubation**
  - Dosage of **Fentanyl** for pediatrics lowered to 2mcg/kg to a max of 100mcg
- **Page P-23 Fever Management**
  - Section removed from this page
  - Now covered in Fever/Sepsis treatment algorithm
- **Page P-26 Pain Management**
  - Dosage of **Fentanyl** for pediatrics lowered to 2mcg/kg to a max of 100mcg
  - Addition of **Use of Ketamine for Pain Management** section
  - Ketamine can be used for pain management ONLY for patients with:
    - Extended extrication time (>10 minutes) where the patient is in severe pain due to significant injury
    - Severe non-cardiac pain rated at a "9" or "10" on a 1-10 scale WITH noted signs/symptoms of severe pain such as elevated pulse rate, increased BP, obvious significant injury, etc.
  - Dosage is 0.5mg/kg to a maximum of 500mg with NO repeat doses unless ordered by Medical Control
  - Cannot be given IM for pain management
  - If Ketamine is administered, narcotics CANNOT be administered without contacting medical control for permission
  - If narcotics have been administered, Ketamine CANNOT be administered without contacting medical control for permission
  - Monitor waveform capnography if available
  - All uses of Ketamine must be reviewed by a peer reviewer
- **Page P-31 Stroke/TIA (Suspected)**
  - New section
  - Discusses in more detail management of stroke/TIA patients
  - References performing the VAN assessment for all patients with positive CSS
    - To help determine if stroke is due to large vessel occlusion (LVO)

- **Page P-34 Transmission of 12 Lead ECGs**
  - New section to meet State requirement effective 1/1/2020
  - States "As indicated by protocols, all SPEMS Paramedics shall perform and interpret a 12 Lead ECG. The interpretation of the ECG shall be reported to the receiving facility. If the 12 Lead ECG indicates a STEMI, the Paramedic shall report such finding to the receiving facility as soon as possible. If transmission capabilities are available, the 12 Lead ECG shall be transmitted to the receiving facility as soon as possible"
- **Page P-34 Transport to Freestanding Emergency Centers (FECs)**
  - New Section
  - Allows for transport of certain patient to approved FECs under for patients that meet certain criteria
    - Approved Lubbock FECs: Star ER and both Covenant HOPD locations
    - Approved Amarillo FECs: both ER Now locations
    - NO OTHER FECs are authorized by Protocols
  - Lists Indications and Contraindications for transport to these approved FECs
  - Provides guidance of timeframe and transport to appropriate facility
  - Flow chart included on page P-36
  - Lists addresses and contact phone numbers for each facility
  - ALL transports to FECs MUST be reviewed by a peer reviewer
- **Page P-38 Pre-Hospital Medications and Intravenous Fluids**
  - Removed D50W and Replaced with D10W
  - Services can comply by utilizing current stock of D50 and 250cc bags of NS. Once existing stock is exhausted or expires, it must be replaced with pre-mixed D10W in 250cc bags
- **Page P-49 Stroke/TIA Triage/Transport Decision Scheme**
  - Updated to reflect importance of determining "Last seen normal time"
  - References Large Vessel Occlusion and the VAN assessment
- **Page P-61 BLS Equipment**
  - Addition of new King Airway sizes LT(S)-D 0 & 1
    - Size "0" will accommodate patients < 5kg and Size "1" will accommodate patients from 5kg to 12kg
  - Addition of 1- Thermometer (may be oral, tympanic, or skin monitoring)
    - Since monitoring of temperature is required with the new Fever/Sepsis Protocol, a thermometer is required
- **Page P-62 ALS Equipment**
  - 2 ea. Red top blood tubes added to required blood tubes
    - Recommended by the Stroke and Cardiac committees (National Standard)
    - Blood tubes required (2 each): Blue, Red, Purple, and Green
- **Page P-63 ALS Medications**
  - Removed D50W and Replaced with D10W in 250cc prefilled bags
    - Includes "**NOTE**: Until current supplies of Dextrose 50% ($D_{50}W$), 25g/50cc are exhausted or expires, EMS services can meet the requirement for Dextrose 10% by carrying 2-Dextrose 50% ($D_{50}W$), 25g/50cc AND 2- 250cc bags of NS. $D_{10}W$ can then be achieved by removal of 50cc of the NS and injecting the 50cc of $D_{50}W$ into the IV bag. Once current supplies of $D_{50}W$ are exhausted, EMS services are required to stock the $D_{10}W$ premixed solution in a 250cc bag."
    - Numerous studies have shown that the administration of D10W is much safer and more beneficial for our patients
- **Page P-63 MICU Equipment**
  - Deleted rectal thermometer
    - Thermometers are required on all units. May be oral, tympanic, or skin monitoring

- **Page P-64 Signature Page**
  - Date changed to 3/1/2019
  - EMS Director MUST sign

- **Throughout Treatment Algorithms:**
  - Changed the date on the bottom to read 03/01/2019
- **Page 1 Burns**
  - Added to pain management box at center to reflect potential use of Ketamine
    - **Ketamine** 0.5mg/kg Slow IV or IO push to a max of 500mg IF the patient rates pain at a "9" or "10" on a 1-10 scale AND significant burn noted
    - **Ketamine cannot be repeated without permission of medical control!**
    - **KETAMINE AND NARCOTICS CANNOT BE ADMINISTERED TO THE SAME PATIENT WITHOUT MEDICAL CONTROL AUTHORIZATION!**
  - Added to the Pediatric Dose Box:
    - Lowered dose of **Fentanyl** to 2mcg/kg slow IVP to a max of 100mcg per single dose
    - **Ketamine** 0.5mg/kg with same criteria as adult. Refer to P-26
    - **Do NOT repeat unless directed to by Medical Control**
    - **Do NOT administer Ketamine and narcotics to same patient unless directed to by medical control** Refer to P-26
- **Page 3 Trauma (Continued)**
  - Added to pain management box on left to reflect potential use of Ketamine
    - •**Ketamine** 0.5mg/kg Slow IV or IO push to a max of 500mg IF: (See Page P-26)
      - Patient rates pain at a "9" or "10" on a 1-10 scale AND accompanying indications of severe pain such as increased heart rate, increased BP, obvious significant injury, etc., OR
      - Prolonged expected extrication (> 10 minutes) where the patient is in severe pain due to significant injury
    - **Ketamine cannot be repeated without permission of medical control!**
    - **KETAMINE AND NARCOTICS CANNOT BE ADMINISTERED TO THE SAME PATIENT WITHOUT MEDICAL CONTROL AUTHORIZATION!**
  - Added to the Pediatric Dose Box:
    - Lowered dose of Fentanyl to 2mcg/kg slow IVP to a max of 100mcg per single dose
    - **Ketamine** 0.5mg/kg with same criteria as adult. Refer to P-26
    - **Do NOT repeat unless directed to by Medical Control**
    - **Do NOT administer Ketamine and narcotics to same patient unless directed to by medical control** Refer to P-26
- **Page 9 Bradyarrhythmias-Adult**
  - Added to box in center: "2. If BP < 90, consider Ketamine, 0.5mg/kg slow IV push to a maximum of 500mg. Repeat doses only with medical direction permission"
    - Ketamine can be used for sedation for pacing if BP < 90
- **Page 17 Supraventricular Tachycardia**
  - Added to box on left (2nd bullet point) that states "- If Systolic BP < 90mmHg consider Ketamine 0.5mg/kg slow IV push to a maximum of 500mg
    - Ketamine can be used for sedation prior to cardioversion if BP < 90
    - Same dosage for pediatrics
- **Page 21 V-Tach With a Pulse (Continued)**
  - Added to 1st box on left (2nd bullet point) that states "- If Systolic BP < 90mmHg and patient is conscious, give Ketamine 0.5mg/kg slow IV push to a maximum of 500mg
    - Ketamine can be used for sedation prior to cardioversion if BP < 90
    - Same dosage for pediatrics

- **Page 26 Decreased Level of Consciousness**
  - Replaced D50W with D10W
    - Adults are given IV bolus W/O using a 10 drop IV set
      - Once patient becomes responsive reassess BGL:
        - If BGL is $\geq$ 90mg/dL TKO D10 and monitor for desired effects
        - If BGL is < 90mg/dL continue D10 W/O while monitoring for desired effect
    - Pediatrics are given IV bolus W/O using a 60 drop IV set
      - Once patient becomes responsive reassess BGL:
        - If BGL is $\geq$ 90mg/dL TKO D10 and monitor for desired effects
        - If BGL is < 90mg/dL continue D10 W/O while monitoring for desired effect
      - D25 and/or D12.5 no longer used
- **Page 27 Fever/Sepsis**
  - New Algorithm
  - Provides guidance for management of patients with sepsis
  - Lists criteria for both adult and pediatric Systemic Inflammatory Response Syndrome (SIRS)
- **Page 29 Heat Exposure**
  - Added "Obtain body temperature" to algorithm
- **Page 33 Seizures**
  - Replaced D50W with D10W
    - Adults are given IV bolus W/O using a 10 drop IV set
      - Once patient becomes responsive reassess BGL:
        - If BGL is $\geq$ 90mg/dL TKO D10 and monitor for desired effects
        - If BGL is < 90mg/dL continue D10 W/O while monitoring for desired effect
    - Pediatrics are given IV bolus W/O using a 60 drop IV set
      - Once patient becomes responsive reassess BGL:
        - If BGL is $\geq$ 90mg/dL TKO D10 and monitor for desired effects
        - If BGL is < 90mg/dL continue D10 W/O while monitoring for desired effect
      - D25 and/or D12.5 no longer used
- **Page 34 Stroke/TIA**
  - Indicates IV should be established with an 18gauge IV catheter or larger
    - To better facilitate CT and tests at ER
  - Indicates VAN Assessment (P-32) for patients with motor control deficit
  - Emphasizes limited scene time to 10 minutes or less
  - Emphasizes the need to obtain the "time of onset" or "last seen normal time"
  - Lists patient history and S/S that should increase suspicion of Stroke/TIA (Box at bottom)
    - History of: CVA/TIA, Cardiac/vascular surgeries, DVT, Diabetes, HTN, CAD, A-Fib, Blood thinners
    - S/S: Altered mentation, Weakness/Paralysis, Visual changes, Sensory loss, Aphasia, Dysathria, Dysphagia, Syncope, Vertigo/Dizziness, Vomiting, Headache, SZ, Respiratory pattern changes, Hyper/Hypotension, Trouble walking/unsteady gait

SUPPLEMENT CHANGES

- **Throughout Supplement**
  - Date of 3/1/2019 throughout
- **Page i Table of Contents**
  - Page numbers adjusted

- **Drug Index**
  - **Page S-12 Dextrose 10% (D10W)**
    - Removed references to D50W, D25W, and D12.5W)
    - Reflects changes from D50 to D10 for hypoglycemic patients where an IV is obtainable
    - Adult Dosage: Utilizing a 10 drop set (A-set), give wide open bolus, until patient becomes responsive. Once responsive, obtain BGL. If BGL ≥ 90mg/dL, slow infusion to a TKO rate and monitor to maintain desired effect. May repeat X 1 if no improvement in LOC AND BGL remains < 70mg/dL
    - Pediatric Dosage: Utilizing a 60 drop set (mini set), give wide open bolus, until patient becomes responsive. Once responsive, obtain BGL. If BGL ≥ 90mg/dL, slow infusion to a TKO rate and monitor to maintain desired effect. May repeat X 1 if no improvement in LOC AND BGL remains < 70mg/dL
    - Until current stocks of D50W (25G/50cc) are exhausted or expired, D10W can be achieved by utilizing a 250cc bag of NS and pre-filled D50W. 50cc should be withdrawn from the bag and the 50cc of D50W injected into the bag. This concentration must be well mixed (shaken) and D10W is achieved
- **Page S-18 Fentanyl**
  - Lowered pediatric dosages of Fentanyl to 2mcg/kg slow IV push to a max of 100mcg per single dose
- **Page S-21 through S-23 Ketamine**
  - Added usage to include pain management and sedation prior to electrical therapy under certain circumstances
  - For Pain Management, Ketamine can be used ONLY for patients with:
    - Extended extrication time (>10 minutes)
    - Severe non-cardiac pain rated at a 9 or 10 WITH noted signs/symptoms of severe pain such as elevated pulse rate, increased BP, obvious significant injury, etc.
    - Dosage is 0.5mg/kg IV or I/O to a maximum of 500mg
    - Given slow IV or IO push (Cannot be given IM for pain management)
    - Cannot be repeated without medical direction permission
    - If Ketamine is administered, narcotics CANNOT be administered without contacting medical control for permission
    - If narcotics have been administered, Ketamine CANNOT be administered without contacting medical control for permission
    - Monitor waveform capnography if available
  - For sedation prior to electrical therapy (cardioversion or pacing), Ketamine can be used ONLY for conscious patients that are hypotensive (SBP < 90mmHg
    - Versed is drug of choice unless hypotensive
    - Dosage is 0.5mg/kg IV or I/O to a maximum of 500mg
    - Given slow IV or IO push (Cannot be given IM for sedation prior to electrical therapy)
  - All uses of Ketamine must be reviewed by a peer reviewer
- **Adult Drug Charts**
  - Removed D50W and replaced with D10W
  - Added Ketamine to charts for pain management
  - Added Ketamine to charts for sedation prior to electrical therapy
- **Pediatric Drug Charts**
  - Adjusted Fentanyl for pain to reflect 2mcg/kg
  - Removed D50W, D25W, and D12.5W and replaced with D10W
  - Added Ketamine to charts for pain management
  - Added Ketamine to charts for sedation prior to cardioversion