

SPEMS Protocol Changes
Paramedic (EMT-P, LP)
4/1/25 to 3/31/26

PROTOCOL CHANGES

- **Every Page**
 - Changed dates at bottom of each page to 4/1/2025
- **Cover Page**
 - Signature with April 1, 2025 date
 - Protocols will expire March 31, 2026
- **Table of Contents**
 - Page numbers changed to reflect additions
- **Page D-1 Endotracheal Intubation**
 - Under placement confirmation, edited #4 to read: “Use of pulse oximetry and continuous waveform capnography”
- **Page D-1 AIR-Qsp3G Airway Device**
 - Under placement confirmation edited the last bullet point to read: Use of pulse oximetry, continuous waveform capnography, skin color, and perfusion to continually monitor the correct placement and effectiveness of the Air-Qsp3G device
- **Page D-4 Chemical Sedation**
 - Addition of waveform capnography (ETCO₂) to monitoring requirements for chemical sedation
- **Page D-5 Management of Hyperactive Delirium with Agitation**
 - Addition of waveform capnography (ETCO₂) to monitoring requirements following Ketamine administration
- **Page D-6 CPAP**
 - In section III. c. removed “if available” from the waveform capnography
 - Waveform capnography is mandatory for all patients on CPAP
- **Pages D-6 to D-7 Continuous Waveform Capnography**
 - Removed “if available” from section
 - All services should now have waveform capnography capabilities
 - Listed required patients for application of waveform capnography that states “Continuous waveform will be used for the following patients:”
 - All patients with an advanced airway (ETT or Air-Qsp3G device) for continuous confirmation of proper airway placement
 - Goal is to maintain ETCO₂ levels between 30 and 35mmHg for perfusing patients
 - All patients receiving CPR
 - ETCO₂ readings should be maintained at or above 20mmHg at all times
 - ETCO₂ readings of less than 10mmHg has been shown to have NO chance of return of spontaneous circulation (ROSC)
 - ETCO₂ readings of less than 20mmHg indicates ineffective CPR
 - If ETCO₂ readings are less than 20mmHg: look at rate, hand placement, depth of compressions, ET tube placement, lung sounds, supplemental oxygen supply, etc.
 - All patients being artificially ventilated or receiving respiratory support with a BVM or ventilator
 - Goal is to maintain ETCO₂ levels between 30 and 35mmHg for perfusing patients
 - All patients with dyspnea, wheezing, crackles (rales), stridor or any form of respiratory distress
 - All patients on CPAP or BiPAP
 - All patients with major trauma

- All patients with significant head injury or sign/symptoms of increasing intracranial pressure; including stroke
 - Goal is to maintain ETCO₂ levels between 30 and 35mmHg for perfusing patients
 - All patients who have been chemically sedated with any medication including failed PAI attempts
 - All patients who have received administration of Morphine, Fentanyl, or Ketamine
 - All patients that have received administration of magnesium sulfate for eclampsia or any benzodiazepine including Valium, Versed, and Ativan.
 - All patients that have received a needle or surgical cricothyrotomy
 - All patients with Fever/Sepsis suspected of meeting SIRS Criteria
 - All patients with toxic inhalation exposure
 - Paramedics may use waveform capnography on any other patient in which the Paramedic feels that waveform capnography would allow for better monitoring and treatment of the patient
- **Page D-9 PAI using Norcuron**
 - Addition of # 5 in first box that states “5. Monitor waveform capnography”
- **Page D-10 PAI using Rocuronium**
 - Addition of # 5 in first box that states “5. Monitor waveform capnography”
- **Page D-11 PAI using Succinylcholine**
 - Addition of # 5 in first box that states “5. Monitor waveform capnography”
- **Page D-14 Nonspecific Complaint**
 - Addition of section for Zofran ODT
 - States that **Zofran ODT** may be administered, instead of IV **Zofran**, if unable to establish IV or where a situation warrants oral administration. **Zofran ODT** is administered by placing on the tongue, allowing it to dissolve without chewing.
 - To be eligible for Zofran ODT, patients must meet the following criteria:
 - Adult patients **MUST** be conscious and able to follow instructions at the time of administration of **Zofran ODT**
 - Pediatric patients **MUST** have a GCS of 15 at the time of administration of **Zofran ODT**
 - Dosage for adults and children > 4YOA is 4mg (1 tablet) and may be repeated X 1 in 15 minutes if needed. For Children over 2YOA but less than 4YOA, the dosage is 2mg (1/2 tablet) with NO repeat dosage. Do not administer **Zofran ODT** to patients < 2 years of age.
 - Note: IV administration of **Zofran** is preferred over ODT. **In the event that Zofran ODT is administered, the Paramedic must maintain control of patient care and document the call on the PCR. Thorough documentation of the reason for Zofran ODT must be on the PCR.**
- **Page D-16 Pain Management**
 - Reworded #8 to read: Cardiac monitoring and monitoring of waveform capnography is required for all patients that receive **Fentanyl, Morphine, or Ketamine** for pain management.
- **Page D-17 Pain Management using Ketamine**
 - Under “Notes” (3rd bullet point) edited to read: Cardiac monitoring and monitoring of waveform capnography is required for all uses of **Ketamine**

- **Page K-2 All BLS Equipment And:**
 - Addition of:
 - 1- Waveform Capnography Monitoring Device (may be integrated with cardiac monitor)
 - 2- Nasal capnography adapters compatible with carried waveform capnography device

- 2- Advanced airway capnography adapters compatible with carried waveform capnography device
- **Page K-4 BLS Medications**
 - Addition of statement: “Due to different concentrations of some drugs, the minimum amount required for each drug is based on the available drug (in mcg, mg, mEq, etc.) rather than the number of containers; unless otherwise specified. Example: 10 aspirin, 325mg, is required. The minimum amount required is 3,250mg.”
 - All services and personnel need to be aware that the minimum quantities are based on the amount of the drug; not the number of containers; if the concentrations are different that that posted within the protocols. Care must be taken to assure that the minimums are present as these are subject to inspection by DSHS.
 - Addition of 3 new medication requirements:
 - 10- Diphenhydramine (Benadryl), 25mg tablets
 - 1- Liquid Children’s Benadryl (Diphenhydramine) 12.5mg/5ml (minimum of 125mg per truck)
 - 5- Zofran ODT (Orally Disintegrating Tablet) tablets, 4mg tablets
 - Set minimum amount of nitroglycerin to 10 doses per truck
- **Page K-5 ALS Medications**
 - Addition of statement: “Due to different concentrations of some drugs, the minimum amount required for each drug is based on the available drug (in mcg, mg, mEq, etc.) rather than the number of containers; unless otherwise specified.”
- **Page K-5 MICU Medications**
 - Addition of statement: “Due to different concentrations of some drugs, the minimum amount required for each drug is based on the available drug (in mcg, mg, mEq, etc.) rather than the number of containers; unless otherwise specified. Example: 2-Ketamine 1,000mg/10cc is required; so, if another concentration is used, the minimum amount carried must be at least 2,000mg.”
- **Page K-7 Pre-Hospital Medications and Intravenous Fluids**
 - Added to Oral Medications: Benadryl, Children’s Liquid Benadryl, and Zofran ODT
- **Page K-8 Signature Section**
 - Date changed to 4/1/2025
 - EMS Service Director must sign
- **Throughout Treatment Algorithms**
 - Changed the date on the bottom to read 04/01/2025
 - Reference page numbers changed to reflect new page numbers
- **Page 1 Burns**
 - In 3rd box from top, added: “3. Monitor Waveform Capnography if any evidence or suspicion of Airway Injury”
 - Addition of bottom right box that states: “Monitor Waveform Capnography on any patient receiving **Fentanyl**, **Morphine**, or **Ketamine** (See D-6 to D-7)”
- **Page 2 Trauma**
 - Addition of box to top left that states: “Monitor Waveform Capnography on all significant trauma patients. If ventilating patient, ETCO2 levels should be maintained at 30-35mmHg for all perfusing patients (See D-6 to D-7)”
- **Page 3 Trauma (Cont’d):**
 - Addition of box to top left that states: “Monitor Waveform Capnography on all significant trauma patients. If ventilating patient, ETCO2 levels should be maintained at 30-35mmHg for all perfusing patients (See D-6 to D-7)”

- **Page 4 Trauma Pain Management**
 - Addition of bottom box that states: “Monitor Waveform Capnography on any patient receiving **Fentanyl, Morphine, or Ketamine** (See D-6 to D-7)”
- **Page 5 Foreign Body Airway Obstruction**
 - Addition of #4 to box at top right that states: “4. Monitor Waveform Capnography”
 - Addition to box upper left: “5. Monitor Waveform Capnography”
- **Page 6 Drowning**
 - Name changed from Near Drowning (outdated term)
 - Addition to both middle boxes of: “5. Monitor Waveform Capnography”
 - Edited 2nd from bottom box to read: “If wheezing noted or signs of bronchoconstriction (sharkfin on Waveform Capnography) present, refer to Respiratory Distress Protocol (Page 7)”
- **Page 7 Respiratory Distress**
 - Addition of #5 in upper middle box that states: “Monitor Waveform Capnography”
 - Edited box in lower middle to state: “Pulse ox <90%, Wheezing Present, or Waveform Capnography indicates bronchoconstriction (“Sharkfin”)?
 - If waveform indicates bronchoconstriction, Duo-Neb and Decadron should be administered
- **Page 8 Asystole or PEA-Adult**
 - Added #6 to top box: 6. Monitor Waveform Capnography
 - Added box to middle left that states:
 - For ALL Patients Receiving CPR:
 - •ETCO2 readings should be maintained at or above 20mmHg at all times.
 - •ETCO2 readings <10mmHg has been shown to have no chance of survival.
 - •ETCO2 readings <20mmHg may indicate ineffective CPR. Check rate and depth of compressions, ET Tube placement, lung sounds, supplemental oxygen supply, etc. (See D-6 to D-7)
- **Page 9 Asystole or PEA-Pediatric**
 - Added #6 to top box: 6. Monitor Waveform Capnography
 - Added box to middle left that states:
 - For ALL Patients Receiving CPR:
 - •ETCO2 readings should be maintained at or above 20mmHg at all times.
 - •ETCO2 readings <10mmHg has been shown to have no chance of survival.
 - •ETCO2 readings <20mmHg may indicate ineffective CPR. Check rate and depth of compressions, ET Tube placement, lung sounds, supplemental oxygen supply, etc. (See D-6 to D-7)
- **Page 10 Bradyarrhythmia-Adult**
 - Addition of box to center left that states: “Monitor Waveform Capnography on any patient receiving **Versed or Ketamine** (See D-6 to D-7)”
- **Page 11 Bradyarrhythmia-Pediatric**
 - Addition to first box: “8. Monitor Waveform Capnography”
 - Addition of box to left that states:
 - For ALL Patients Receiving CPR:
 - •ETCO2 readings should be maintained at or above 20mmHg at all times.
 - •ETCO2 readings <10mmHg has been shown to have no chance of survival.
 - •ETCO2 readings <20mmHg may indicate ineffective CPR. Check rate and depth of compressions, ET Tube placement, lung sounds, supplemental oxygen supply, etc. (See D-6 to D-7)

- **Page 12 Cardiac Chest Pain or Suspected Myocardial Infarction**
 - Addition to bottom box: “If unable to establish an IV, consider **Zofran ODT**, 4mg if patient is conscious and able to follow commands. Paramedic must maintain control of patient care and document the call on the PCR”
 - Addition of bottom left box that states: “Monitor Waveform Capnography on any patient receiving **Fentanyl** or **Morphine** (See D-6 to D-7)”
- **Page 16 Post Resuscitation Management**
 - Addition of # 5 to both boxes on top that states “Monitor Waveform Capnography”
- **Page 18 SVT**
 - Addition of bottom left box that states: “Monitor Waveform Capnography on any patient receiving **Versed** or **Ketamine** (See D-6 to D-7)”
- **Page 19 V-Fib or Pulseless V-Tach-Adult**
 - Added # 8 to first box to read “Monitor Waveform Capnography”
 - Added box to middle left that states:
 - For ALL Patients Receiving CPR:
 - •ETCO2 readings should be maintained at or above 20mmHg at all times.
 - •ETCO2 readings <10mmHg has been shown to have no chance of survival.
 - •ETCO2 readings <20mmHg may indicate ineffective CPR. Check rate and depth of compressions, ET Tube placement, lung sounds, supplemental oxygen supply, etc. (See D-6 to D-7)
- **Page 20 V-Fib or Pulseless V-Tach-Adult**
 - Added # 8 to first box to read “Monitor Waveform Capnography”
 - Added box to middle left that states:
 - For ALL Patients Receiving CPR:
 - •ETCO2 readings should be maintained at or above 20mmHg at all times.
 - •ETCO2 readings <10mmHg has been shown to have no chance of survival.
 - •ETCO2 readings <20mmHg may indicate ineffective CPR. Check rate and depth of compressions, ET Tube placement, lung sounds, supplemental oxygen supply, etc. (See D-6 to D-7)
- **Page 22 V-Tach with a Pulse (Continued)**
 - Addition of box to top right that states: “Monitor Waveform Capnography on any patient receiving **Versed** or **Ketamine** (See D-6 to D-7)”
- **Page 23 Eclampsia**
 - Addition of box to center right that states: “Monitor Waveform Capnography on any patient receiving **Mag Sulfate** or **Valium** (See D-6 to D-7)”
- **Page 25 Allergic Reaction**
 - Addition of box to top right that states: “If minor reaction and unable to establish IV, consider **Benadryl**, 50mg PO if patient is conscious and able to follow commands. **Paramedic must maintain control of patient care and document the call on the PCR**”
 - Added to box in middle to read: 1. Monitor Waveform Capnography
 - Added to Pediatric dose Box:
 - **Liquid Children’s Benadryl**, 1mg/kg to a max of 50mg. Patient must of GCS of 15
- **Page 27 Decreased LOC**
 - Addition to both boxes under the Opioid Narcotics box that states:
 - Under the “Yes” box addition of: “1. Monitor Waveform Capnography”
 - Under the “NO/UNKNOWN BOX, addition of “1. Monitor Waveform Capnography”
- **Page 28 Fever/Sepsis**
 - Reworded #6 in first box to read: “Monitor Waveform Capnography”
- **Page 29 Hazardous Materials**
 - Added #6 in first box to read: “6. Monitor Waveform Capnography if toxic inhalation”

- **Page 32 Neonatal Resuscitation**
 - Addition to box on middle left: “6. Monitor Waveform Capnography”
 - Addition of box on lower right that states:
 - For ALL Patients Receiving CPR:
 - •ETCO2 readings should be maintained at or above 20mmHg at all times.
 - •ETCO2 readings <10mmHg has been shown to have no chance of survival.
 - •ETCO2 readings <20mmHg may indicate ineffective CPR. Check rate and depth of compressions, ET Tube placement, lung sounds, supplemental oxygen supply, etc. (See D-6 to D-7)
- **Page 34 Seizures**
 - Addition to box for in middle after Valium administration: 2. Monitor Waveform Capnography
 - Addition to box on lower left: Monitor Waveform Capnography on any patient receiving Diazepam (Valium) or Midazolam (Versed)
- **Page 35 Stroke**
 - Addition to first box: “8. Monitor Waveform Capnography”

RESPIRATORY VIRUS ILLNESS ADDENDUM CHANGES

- Dates changed to 4/1/2025
- Added to the Known or Suspected Respiratory Viral Illness Treatment and Transport Guidelines Algorithm:
 - In the bottom center box, added #2: “Monitor Waveform Capnography (Advanced and Paramedic)”

PROTOCOL SUPPLEMENT CHANGES:

- **Throughout Supplement**
 - Date of 4/1/2025 throughout
- **Page S-10 Benadryl**
 - Added Benadryl PO
 - Adult Dose is 50mg
 - Adult patients must be awake and able to follow commands
 - Pediatric dose is PO Liquid Children’s Benadryl 1.0mg/kg to a max of 50mg.
 - For PO administration, pediatric patients must have GCS of 15
 - Added statement under Special Notes/Restrictions:
 - Benadryl IV is the preferred administration route.
 - Benadryl PO may be given for minor reactions by EMTs or by ALS personnel if unable to establish an IV.
 - IF Benadryl PO is given, the highest certified crewmember must maintain control of patient care and document the call on the PCR
- **Page S-40 Zofran**
 - Added Zofran ODT
 - Adult dose is 4mg
 - Adult patients must be awake and able to follow commands
 - Pediatric patients must have a GCS of 15
 - Added statement under Special Notes/Restrictions:
 - Zofran ODT is administered by placing the tablet on top of the tongue and encouraging the patient to allow it to dissolve without swallowing
 - Zofran IV is the preferred administration route.

- Zofran ODT may be given by EMTs or by ALS personnel if unable to establish an IV.
- If Zofran ODT is given, the highest certified crewmember must maintain control of patient care and document the call on the PCR
- **Page S-45 to S-48 Adult Drug Charts**
 - Added Benadryl tablets and Zofran ODT to charts
- **Page S-49 to S-52 Pediatric Drug Charts**
 - Added Liquid Children's Benadryl tablets and Zofran ODT to charts