**Summary of State Emergency Medical Control Committee (SEMCC)**  
**Approved Protocol Revisions September 1, 2015**

**NALOXONE**

*Summary:* Expand Naloxone down to the Emergency Medical Technician (EMT) level to increase availability due to increasing numbers of heroin overdose deaths. This has been requested by many members of the public and is recommended by the Centers for Disease Control and Prevention (CDC) ([http://www.cdc.gov/media/releases/2015/p0424-naloxone.html](http://www.cdc.gov/media/releases/2015/p0424-naloxone.html)). The Committee recommends that intranasal naloxone be added as a mandatory drug for basic life support (BLS) transport agencies. The Committee also recommends that the EMT be allowed to assist the patient with his or her own naloxone, if the patient has it, regardless of the route of administration.

*Proposed Changes:*

**Scope of Practice 1.01**  
Under EMT Scope of Practice, Medications:  
#1, Add “naloxone.”  
#2, Add “and auto-injection, sublingual, or intranasal naloxone.”

**Altered Mental Status 3.05**  
Under Drugs/Procedures for EMT add:  
*Naloxone:*  
2 mg IN every 3 minutes up to total 8 mg. If desired, the EMSP may start by giving 0.5 mg and titrate to effect.  
**Pediatric:** <5 years give 0.5 mg/kg IN  
**Pediatric:** >5 years or 20 kg give 2 mg IN

**Poisons and Overdoses 3.27**  
Under Drugs/Procedures for EMT, Internal Poisoning, add:  
*Naloxone:*  
2 mg IN or 0.4 mg IM autoinjection every 3 minutes up to total 8 mg. If desired, the EMSP may start by giving 0.5 mg and titrate to effect.  
**Pediatric:** <5 years give 0.5 mg/kg IN  
**Pediatric:** >5 years or 20 kg give 2 mg IN
SPINAL INJURY

Summary: De-emphasize the use of hard backboards to be consistent with the American College of Surgeons-Committee on Trauma and the National Association of Emergency Medical Services Physicians position statements.

Proposed Changes:

Spinal Injury 3.32
Under Complaints of Pain or Examination Tenderness first bullet point, change “full SMR” to “spinal precautions.”

Under Key Points, change first key point to bold print to emphasize, “Full SMR as an automatic response to trauma may not always be in the patient’s best interest.”

Under Key Points, add to third key point, “If a backboard device is used only to move the patient, it should be removed as soon as practical.”

Under Key Points, strike first sentence in third key point. Change fourth bullet to read, “When implementing SMR, do not secure the head to the backboard before securing the body because this can cause torsion on the neck.”

Under Key Points, add a key point and make it the new second key point, “Patients with penetrating trauma to the head, neck, or torso and no evidence of spinal injury do not require full SMR.”

Under Treatment, add the definition of spinal precautions: “Spinal Precautions: Spinal precautions include the use of a cervical collar and securing the patient firmly to the EMS stretcher maintaining the spine in neutral alignment. Spinal precautions may be appropriate for patients found ambulatory at the scene, patients who must be transported for a prolonged amount of time, or patients for whom a backboard is not otherwise indicated per the protocol algorithm.”

Under Drugs/Procedures, add “Spinal Precautions” in the EMT box.

Replace Flow chart (see separate file “Spinal Flow Chart”).

Scope of Practice 1.01
Under EMT Scope of Practice #16 add, “and Spinal Precautions.”
TRAUMA SYSTEM

Summary #1: Delete reference to regions not operating under trauma system as all regions now operate under trauma system.

Proposed Change #1:

Trauma System 1.16
Under ENTERING A PATIENT INTO THE ALABAMA TRAUMA SYSTEM, delete #1.

Change to read: “EMS Providers should call the Alabama Trauma Communications Center (ATCC) to determine patient destination.”

Summary #2: There is regional variation in entry of trauma related cardiac arrests into the trauma system.

Proposed Change #2:

Trauma System 1.16
Under Physiological Criteria, add a clarification sentence after #1, “This includes any trauma related cardiac arrest that will be treated or transported to the hospital.”

Summary #3: Update trauma system entry criteria to be consistent with 2011 CDC Field Triage Guidelines.

Proposed Change #3:

Trauma System 1.16
Under Anatomical Criteria, change #3 to read: “The patient has penetrating trauma to the head, neck, torso, or extremities proximal to the elbow or knee.”

Under Anatomical Criteria, add #9, “The patient has a crushed, degloved, mangled, or pulseless extremity.”

Under Anatomical Criteria, add #10, “The patient has an open or depressed skull fracture.”
**SEIZURE**

**Summary:** Since new literature suggests superiority of intranasal and intramuscular over intravenous routes of administration for benzodiazepine treatment of seizure, add intranasal for pediatrics and emphasize IM treatment for adults. Simplify pediatric dosages for uniformity by changing all intravenous dosages to 0.1 mg/kg.

**Proposed Changes:**

**Seizure 3.30**
Under TREATMENT second bullet, add “Establish IV access if required to administer IV medication. Do not delay treatment in order to establish an IV if other methods of drug delivery are available and appropriate for the patient.”

Under TREATMENT fifth bullet, change to, “Diazepam IV/PR, Lorazepam IV, or Midazolam IV/IM/IN for Active Seizures. Note: Midazolam IN is the preferred drug for pediatric patients, if it is available.”

Under DRUGS/PROCEDURES Paramedic, change to read:

**Diazepam:**
5-10 mg IV or 0.2 mg/kg per rectum, MAX 20 mg for PR
Pediatric
IV: 0.1 mg/kg slow IV
Rectal: 0.5 mg/kg PR
MAX 5 mg (Cat B) 🚭

**Lorazepam:**
1-2 mg slow IV
Pediatric:
IV: 0.1 mg/kg slow IV
MAX 2 mg (Cat B) 🚭

**Midazolam:**
2 mg IV or IM
Pediatric:
IV/IM: 0.1 mg/kg slow IV or IM
IN (PREFERRED): 0.2 mg/kg IN via atomizer
MAX 5 mg (Cat B) 🚭
5.08 *Diazepam*
Under ADMINISTRATION replace dosage with:
Adult:
5-10 mg IV or 0.2 mg/kg per rectum, MAX 20 mg for RECTAL dosing
Pediatric:
IV: 0.1 mg/kg slow IV
Rectal: 0.5 mg/kg PR
MAX 5 mg (Cat B)

5.18 *Lorazepam*
Under ADMINISTRATION replace Pediatric dosage with:
Pediatric:
IV: 0.1 mg/kg slow IV
MAX 2 mg (Cat B)

5.20 *Midazolam*
Under ADMINISTRATION replace Adult dosage with:
2 mg IV or IM

Under ADMINISTRATION replace Pediatric dosage with:
Pediatric:
IV/IM: 0.1 mg/kg slow IV or IM
IN (PREFERRED): 0.2 mg/kg IN via atomizer
MAX 5 mg (Cat B)
ALBUTEROL

Summary: Albuterol dosage is inconsistent in the current protocols. Albuterol comes from the manufacturer in 2.5 mg dosages. In some places, albuterol is listed as 2.5 mg and in some places as 3 mg. Of note, when albuterol is mixed with ipratropium, it comes from the manufacturer as 3.0 mg albuterol, therefore the dosage will be listed as 3.0 mg when albuterol is mixed with ipratropium.

Proposed Changes:

**Respiratory Distress 3.29**
Under DRUGS/PROCEDURES Advanced Albuterol, change “3 mg” to “2.5 mg.”

Under DRUGS/PROCEDURES Advanced Albuterol, add sentence, “may substitute Albuterol with Ipratropium, refer to Albuterol and Ipratropium (5.02) for dosing information.”

**Albuterol and Ipratropium 5.02**
Under ADMINISTRATION for Albuterol Adult and Pediatric, change “3 mg” to “2.5 mg.”
**CPAP**

*Summary:* Due to the success of CPAP and the diminished cost of CPAP, the Committee recommends adding CPAP to the EMT Scope of Practice and expanding to add BIPAP as an option for those who wish to use it. The Committee recommends that CPAP be mandatory for BLS transport agencies.

*Proposed Changes:*

**Scope of Practice 1.01**  
Under ADVANCED EMT Scope of Practice Procedures, move #2 Continuous Positive Airway Pressure (CPAP) to EMT Scope of Practice Procedures, #27.

**Congestive Heart Failure 3.15**  
Under DRUGS/PROCEDURES, move “CPAP (age >12 years)” from Advanced box to EMT box.

**Near Drowning 3.25**  
Under DRUGS/PROCEDURES, move “Consider CPAP” from the Advanced box to the EMT box.

**Continuous Positive Airway Pressure (CPAP) 4.05**  
Under DESCRIPTION, add as the last sentence, “When desired and approved by the service medical director, BiPAP may be substituted for CPAP.”

**Respiratory Distress 3.29**  
Under DRUGS/PROCEDURES, move “Consider CPAP” from the Advanced box to the EMT box.
DEXTROSE

Summary: There have been requests to clarify in the protocols that different concentrations of dextrose may be administered for the treatment of hypoglycemia.

Proposed Changes:

**Hypoglycemia 3.21**
Under DRUGS/PROCEDURES in the Advanced Box after the word “Dextrose,” insert the sentence: “Different concentrations of dextrose may be used when approved by the service medical director.”

**Dextrose 50% 5.07**
Change title to “Dextrose,” and reflect change in Table of Contents as well.

Under PRECAUTIONS and SIDE EFFECTS, change “dextrose 50%” to “dextrose” in both instances it is mentioned.

Under ADMINISTRATION, change adult dosage to:
“Adult: 25 gm D50W IV or D10W IV. Different concentrations of dextrose may be used when approved by the service medical director.”

After Pediatric dosage, add the sentence “Different concentrations of dextrose may be used when approved by the service medical director.”

**Thiamine 5.29**
Under INDICATIONS, change “Dextrose 50%” to “Dextrose.”
AMIODARONE

Summary: Recommendations have been made to dilute amiodarone in 100 cc bag of fluid. The Committee has researched and found that amiodarone can be mixed with D5W or normal saline. The Committee recommends that the protocols reflect that amiodarone can be diluted in small amounts of fluid if this does not delay care.

Proposed Changes:

Amiodarone 5.03
Under ADMINISTRATION Ventricular Fibrillation/Pulseless Ventricular Tachycardia after the adult dosage, add the sentence, “If administration will not be delayed, amiodarone may be diluted in up to 20cc of D5W or NS prior to administration, in order to prevent hypotension and bradycardia.”

Under ADMINISTRATION, Wide Complex Tachycardia with a Pulse, after the adult dosage add the language, “Dilute in 20 cc of NS or D5W and administer over 10 minutes as a slow IV push OR inject into a 100 cc bag of NS or D5W and infuse over 10 minutes.”
MAGNESIUM

Summary: Magnesium can be used to treat bronchospasm. The recommendation was made to add magnesium as a treatment for wheezing as a Category B drug since it is already carried.

Proposed Changes:

Respiratory Distress 3.29
Under TREATMENT Wheezing, add a subheading after “Albuterol” as follows: Consider “Magnesium Sulfate” for severe refractory asthma.”

Under DRUGS/PROCEDURES in the Paramedic box, add the following: Magnesium Sulfate: 
2 gm in 250 cc NS IV/IO over 20 minutes (Cat B)  
Pedictric: Not indicated

Magnesium Sulfate 5.19
Under INDICATIONS, add a third bullet point, “Severe asthma.”

Under ADMINISTRATION, add a third section to read: Severe Asthma
Adult:  
2 gm diluted in 250 cc NS IV/IO over 20 minutes (Cat B)  
Pediatric: Not indicated
ALLERGIC REACTION

Summary: There remains confusion about when to give IM epinephrine. Simplify the allergic reaction protocol by combining the moderate and major reactions into a new moderate/severe category and emphasizing IM over IV epinephrine.

Proposed Changes:

Allergic Reaction 3.04
Under KEY POINTS fifth bullet, change “Major Allergic Reaction” to “Moderate/Severe Allergic Reaction.”

Under TREATMENT, replace the sections for “Moderate Reaction” and “Major Reaction” with the following:

Moderate/Severe Reaction: Skin rash with presence of respiratory symptoms such as wheezing. Can include severe respiratory distress including airway compromise or signs of shock.
- Oxygen 15 L/M non-rebreather mask.
- Consider IV access.
- Cardiac monitor.
- Epinephrine 1:1000 IM (Preferred first line medication). For repeat dosing contact online medical control).
- Albuterol.
- Diphenhydramine.
- Normal Saline Bolus if signs of shock such as tachycardia or hypotension.
- Epinephrine 1:10,000 IV for refractory reaction with OLMD approval.

Under DRUGS/PROCEDURES in the Paramedic box before Epinephrine 1:10,000, repeat the Epinephrine 1:1000 dosage from the Advanced EMT box: Epinephrine 1:1000
0.3 mg (0.3 cc) IM (Cat A)
If pt is age 65 or older, has history of heart disease, or uncontrolled hypertension contact OLMD prior to administration (Cat B) ⚠️
Pediatric: 0.01 mg/kg (0.01 cc/kg)
MAX 0.3 mg (0.3 cc) IM
INTRAOSSEOUS INSERTION SITE

Summary: As a result of a pilot study showing safety and efficacy, add the humeral site as a location for intraosseous lines.

Proposed Change:

**Intraosseous Therapy 4.11**
Under PROCEDURE fourth paragraph, replace first sentence with, “The proximal tibia and the proximal humerus are the only authorized sites for all devices except the FAST-1, which is a sternal device only for use in adults.”
HEMOSTATIC AGENT

Summary: Add Nustat, a new hemostatic agent that has been introduced to the market. Studies have shown its efficacy.

Proposed Change:

Hemostatic Agent 6.03
Add #4. Nustat Gauze [Cellulose and Silica based].
**HYPERTHERMIA**

*Summary:* Update the protocol to reflect the current practice to allow cooling of hyperthermic patients on the scene when cooling capabilities are present.

*Proposed Change:*

**Hyperthermia 3.20**  
Under Key Points last bullet, delete the sentence, "**Do not let cooling in the field delay transport.**"
SHOCK

Summary: Update the protocol to reflect the current practice of permissive hypotension during resuscitation.

Proposed Change:

Shock 3.31
Under DRUGS/PROCEDURES in the Advanced box, change “titrate to SBP 120 mmHg” to “titrate to SBP 90 mmHg.”
DEATH IN THE FIELD

Summary: Clarify that if the Online Medical Director (OLMD) declares death in the field during transport, the destination hospital must be notified. Sometimes the OLMD is not at the destination hospital.

Proposed Change:

Death in the Field 1.03
Under Traumatic Cardiac Arrest Special Considerations, add Item #3: “If OLMD stops resuscitation during transport, the patient must be taken to that OLMD physician to be pronounced dead. In some circumstances, it is possible that OLMD may not be working in the receiving facility. If the OLMD is not at the receiving facility and resuscitation is terminated during transport, you must notify the receiving facility as soon as possible. The physician on staff at the receiving facility should pronounce death upon arrival.”

Under DETERMINING DEATH IN CARDIAC MEDICAL ARREST, Item #1d, add the following sentence: “In some circumstances, it is possible that OLMD may not be working in the receiving facility. If the OLMD is not at the receiving facility and resuscitation is terminated during transport, you must notify the receiving facility as soon as possible. The physician on staff at the receiving facility should pronounce death upon arrival.”
CARDIAC ARREST American Heart Association (AHA) Guideline Update

Summary: Update the protocols to be consistent with the AHA guidelines released on October 15, 2015.

Proposed Changes:

Cardiac Arrest (Adult) 3.09
Under KEY POINTS first bullet, change first sentence to: “Performance of high quality chest compressions at a rate of 100-120 compressions/minute and 2 inches depth allowing for full chest recoil combined with early defibrillation are the most critical elements of the resuscitation. Consider use of a metronome to ensure proper chest compression rate.”

Under KEY POINTS, add a seventh bullet point: Consider treatment for opiate overdose per Poisons and Overdoses Protocol (3.27) if opiate overdose is suspected in the cardiac arrest patient.”

Under TREATMENT Ventricular Fibrillation/Pulseless Ventricular Tachycardia, delete the eighth bullet referring to Vasopressin.

Under DRUGS/PROCEDURES Ventricular Fibrillation/Pulseless Ventricular Tachycardia, delete Vasopressin from the Paramedic box.

Under TREATMENT Asystole/Pulseless Electrical Activity, delete the seventh bullet referring to Vasopressin.

Under DRUGS/PROCEDURES Asystole/Pulseless Electrical Activity, delete Vasopressin from the Paramedic box.

Cardiac Arrest (Pediatric) 3.10
Under KEY POINTS first bullet, change first sentence to: “Performance of high quality chest compressions at a rate of 100-120 compressions/minute and a depth of 1.5” in infants and 2” in children, allowing for full chest recoil, combined with early defibrillation are the most critical elements of the resuscitation. Consider use of a metronome to ensure proper chest compression rate.”

Under KEY POINTS, add an eighth bullet: “Consider treatment for opiate overdose per Poisons and Overdoses Protocol (3.27) if opiate overdose is suspected in the cardiac arrest patient.”

Under TREATMENT Ventricular Fibrillation/Pulseless Ventricular Tachycardia, delete the eighth bullet referring to Vasopressin.
Under DRUGS/PROCEDURES Ventricular Fibrillation/Pulseless Ventricular Tachycardia, delete Vasopressin from the Paramedic box.

Under TREATMENT Asystole/Pulseless Electrical Activity, delete the seventh bullet referring to Vasopressin.

Under DRUGS/PROCEDURES Asystole/Pulseless Electrical Activity, delete Vasopressin from the Paramedic box.

**Newborn 3.26**
Under TREATMENT, change the fourth bullet to read: “Assess infant’s breathing and heart rate.”

- *Bag valve mask ventilation* with 100% oxygen at a rate of 30 breaths/minute if infant is gasping or apneic or if heart rate <100/minute.
- *Chest compressions* at a rate of 90/minute if heart rate <60.
- Consider endotracheal intubation.

Under TREATMENT, change the last bullet to read: “Record APGAR score at birth and at 1 and 5 minutes.”

Under DRUGS/PROCEDURES, in the EMT box under Bag-valve-mask ventilation, change “40-60/min” to “30/min.” Under Chest Compressions, change “120 events/min” to “90 events/min.”

**Vasopressin 5.30**
Delete this protocol and delete it from the Table of Contents.

**Optional Medications and Procedures 1.11**
Delete Vasopressin.