Date: September 11, 2017

To: MCB Physicians

From: Jeffrey M. Goodloe, MD, NRP, FACEP, FAEMS

Re: 2018 Protocol Set Recommended Changes

In another year's sincere effort to make yearly protocol set change deliberations as efficient as possible for the MCB meeting this month, I am summarizing the changes I recommend on behalf of the OMD team that worked collectively on these changes. The effective date for these changes is suggested to be January 15, 2018 to allow for training on these changes. The OMD team has personally reviewed each and every protocol in this process. Here are the recommended changes:

Protocol 2H – Nasal Intubation Under Indications: added hypoxia and/or hypoventilation refractory to non-invasive airway/respiratory management, including refractory to NIPPV.

Multiple Protocols Changed all protocols listed below with "per protocol 2G" added to the instructions in the EMT-I/AEMT and Paramedic scopes of practice for intubation if indicated per applicable protocols

- Respiratory Arrest (3A)
- Dyspnea – Uncertain Etiology (3B)
- Dyspnea – Asthma (3C)
- Dyspnea – Congestive Heart Failure (3D)

Protocol 3F - Dyspnea – Brief Resolved Unexplained Event (BRUE) Pediatric Less Than 1 Year of Age : Medication assisted intubation if indicated per protocol 2G was added to the paramedic scope of practice.

Protocol 3G – Pulse Oximetry Under indication #3 changed ALTE to BRUE.

Protocol 3H – Waveform Capnography The statement was added under critical comment, trouble shooting tip chart and to the corrective action box: "adjust EtCO2 scale to 0-20 and print 6 second strip for verification of waveform capnography."

Protocol 3I – Oxygen Administration Use in acute condition to include changed ALTE to BRUE.

Protocol 3J – Nebulization Therapy Under technique changed Bi/CPAP to NIPPV.

Protocol 3K – Non-Invasive Positive Pressure Ventilation (NIPPV) In the CPAP box added (if COPD titrate to SpO2 88-92%) and in the Bi-Level PAP box added (if COPD titrate to SpO2 88-92%).

Protocol 4A – Resuscitation (CPR) specified use of metronome and ResQPUMP within 2 minutes.

Protocol 4B – Resuscitation Team Roles In the P2 box, specified use of metronome and ResQPUMP within 2 minutes.

Protocol 4C – Automated External Defibrillation (AED) Added continue chest compressions while AED is charging and removed continue CPR while applying pads.

Multiple Protocols Added "deploy ResQCPR within 2 minutes"

- Asystole (4F)
- Ventricular Fibrillation/Pulseless Ventricular Tachycardia (4G)
- Pulseless Electrical Activity (4H)
- Specific Causes of Cardiac Arrest (4I)

Protocol 4G - Ventricular Fibrillation/Pulseless Ventricular Tachycardia

- If 100 kg or greater weight, initiate double sequential defibrillation after the first 360J defibrillation
- Changed epinephrine to: repeat every 3-5 minutes to a maximum cumulative dose of 3mg (this is for VF only, asystole and PEA remains without max)

Protocol 4I – Specific Causes of Cardiac Arrest Added to treatment priority box that calcium chloride is the first medication given for suspected hyperkalemia.

Protocol 5A – Chest Pain Uncertain Etiology

- "O2 if indicated" was removed from the treatment priority box
- Treatment priority box changed from "3 in 5 minutes" of patient contact to "2 in 5 minutes" of patient contact
- In the EMT scope of practice the word ONLY was added to O2 via NC or NRB **ONLY** if dyspnea or pulse ox <94% at room air.

Protocol 5B – Acquiring & Transmitting 12-Lead ECGs added under contraindication: "If transferring facility has already obtained 12-lead ECG confirming STEMI prior to EMS arrival, transport is not to be delayed in an effort to obtain additional 12-lead ECG by arriving EMS professionals. Serial 12-lead ECG(s) for transmission to receiving facilities is/are to be obtained during transport."

Protocol 5C – Acute Coronary Syndrome

- "O2 if indicated" was removed from the treatment priority box
- **Avoid** O2 by NC unless dyspnea or pulse ox <94% at room air
- Added Team Roles Diagram – new role specification for treatment efficiency
- Changed the reference of 16F to 16HH

Protocol 6A – Stroke In the EMT scope of practice the word ONLY was added to O2 via NC or NRB **ONLY** if dyspnea or pulse ox <94% at room air.

Protocol 16N – Epinephrine 1mg/mL (1:1000) & 0.1mg/mL (1:10,000) Added to Ventricular Fibrillation/Pulseless Ventricular Tachycardia - Adult (4G) 0.1mg/mL (1:10,000) 1 mg IVP/IOP Repeat every 3 - 5 minutes while resuscitating cardiac arrest, cumulative maximum 3mg.

Protocol 9B – Sepsis

- Removed “fever” from the title of protocol
- Changed treatment priority box from “IVF if hypotension” to “IV fluid resuscitation”
- Changed under pediatric fluid bolus to: IV NS 20 mL/kg bolus if no signs of pulmonary edema, with a repeat of bolus once to total of 40 mL/kg

Protocol 9E – Dialysis – Related Issues Added to treatment priority box that calcium chloride is the first medication given for suspected hyperkalemia.

Protocol 9L – Nasogastric/Orogastric Tube Under indications added: decompression of ventilated air in stomach (reduction of gastric distention) in the cardiac arrest patient. (may be placed pre or post intubation).

Protocol 10D – Chest/Abdomen/Pelvis Injury Changed to cover sucking chest wounds with vented seal instead of non-vented seal presently used.

Protocol 11A – Heat Illness “Early cooling therapy” was added to the treatment priority box.

Protocol 11D – Water Submersion Events Removed the word “cold” from water submersion cardiac arrest. Changed to water submersion cardiac arrest initiate resuscitation and transport with rewarming if submersion time less than:

1. 60 minutes if water temperature estimated to be greater than 6 degrees Celsius (42.8 degrees F)
2. 90 minutes if water temperature estimated to be less than 6 degrees Celsius (42.8 degrees F)

Multiple Protocols Removed “Fever” from “Fever and Sepsis”

- Dopamine (16L)
- Norepinephrine (Levophed) (16II)
- Ondansetron (Zofran) (16JJ)

Reference Updates:

- **Protocol 2F – Oral Intubation**
- **Protocol 2H – Nasal Intubation**
- **Protocol 4C – Automated External Defibrillation (AED)**
- **Protocol 4E – Double Sequential External Defibrillation**
- **Protocol 4G - Ventricular Fibrillation/Pulseless Ventricular Tachycardia**
- **Protocol 5A – Chest Pain Uncertain Etiology**
- **Protocol 5C – Acute Coronary Syndrome**
- **Protocol 5M – Ventricular Assist Device (VAD) Management**
- **Protocol 6B – Altered Mental Status**
- **Protocol 9B – Sepsis**
- **Protocol 9K – Medication Administration**
- **Protocol 10I – Hemostatic Agents**
- **Protocol 10P – Blast Injury**
- **Protocol 11D – Water Submersion**