Lexington—March 23, 2015 — The Kentucky Board of Emergency Medical Services announced immediate availability of amendments and additions to the Kentucky State EMS Protocol today. These amendments and additions are not meant to replace the forthcoming release of the new Kentucky State EMS Protocol; rather, they are updates of the currently published protocol.

Any licensed Kentucky EMS agency that has adopted the Kentucky State EMS Protocol will be required to implement these amendments and additions immediately. In the event that the agency wishes to “opt-out” of these new protocols, the agency should send a letter to that effect on agency letterhead with the signature of the Agency Director and Medical Director to darby.mcdonald@kctcs.edu.

The following Protocols have been added:
- Adrenal Crisis- Pages 401-402
- Selective Spinal Immobilization- Pages 403-406

Addendums have been made to the following Protocol:
- Protocol Table of Contents- pp. 2-5
- Cardiac Arrest- Page 50
- Asthma/COPD/RAD- Adult- Page 62
- Diabetic Emergencies: Hypoglycemia- Page 64
- Cyanide Poisoning (Adult)- Page 77
- Poisoning: Nerve Agents and Organophosphates MCI- Page 81
## Procedure Protocols

- Application of ECG Monitors and Electrodes ........................................... 242
- Mark I/Duodote Autoinjector Administration ........................................... 244
- External Jugular IV Access .......................................................................... 247
- Intraosseous Access ..................................................................................... 248
- Umbilical Vein Cannulation .......................................................................... 255
- Vascular Access via Central Catheter ............................................................ 256

## Inter-facility Protocols .................................................................................. 258
- Interfacility Transfer ...................................................................................... 259
- Maintenance of Blood or Blood Products ...................................................... 262
- Thoracostomy Tube Monitoring .................................................................... 264
- Amiodarone Hydrochloride Infusion Monitoring ......................................... 265
- Heparin Infusion Monitoring ......................................................................... 266
- Lidocaine Infusion Monitoring ....................................................................... 267
- Magnesium Sulfate Infusion Monitoring ....................................................... 268
- Nitroglycerin Infusion Monitoring .................................................................. 269
- Potassium Chloride Infusion Monitoring ...................................................... 271
- Tissue Plasminogen Activator (TPA) Infusion Monitoring ............................ 272

## Medication List ............................................................................................... 273

## Specialized Protocols .................................................................................... 325
- TASER Subdued Patient ................................................................................ 326
- Strenuous Activity/Firefighter Rehabilitation .............................................. 328
- STARTBand Emergency Response Tag System ........................................... 333
- START System of Triage ................................................................................. 335
- Mass Casualty Incidents ................................................................................ 341
- EMS Plan for Responding to Pandemic Influenza ........................................ 363

## Toxmedic Emergency Care Protocols ............................................................. 367

---

**Addendum (revised March 4, 2015)**

- Adrenal Crisis ................................................................................................. 401
- Selective Spinal Immobilization ..................................................................... 403
Adrenal Crisis or Acute adrenal insufficiency occurs in patients with a history of adrenal insufficiency in times of stress (infections, fevers, trauma, recent surgery) or non-compliance with medications. It would be a rare incidence that an EMS agency would encounter an undiagnosed acute adrenal insufficiency patient.

Adrenal insufficiency results when the body does not produce the essential life-sustaining hormones cortisol and aldosterone. These hormones are vital to maintain blood pressure, cardiac contractibility, water and salt balance.

Chronic adrenal insufficiency can be caused by number of conditions:
- Disorders of the adrenal gland
- Disorders of the pituitary gland
- Long-term use of steroids (DOPD, asthma, rheumatoid arthritis, and transplant patients)

Acute adrenal crisis can result in refractory shock or death in patients (on maintenance dose of hydrocortisone (SoluCortef)/ prednisone) who have acute illness or trauma in which there is a need for additional cortisol for the body to response to the acute stress. It is critical that these patients receive a stress dose of hydrocortisone as soon as possible.

**Signs and symptoms** of acute adrenal crisis include
- Pallor
- Dizziness
- Headache
- Weakness/lethargy
- Abdominal pain
- Vomiting/ nausea
- Hypoglycemia
- Hypermagneemia
- Hyperkalemia
- Hypotension
- Shock
- Heart Failure
- Fever
- Confusion, disorientation

**Treatment Goals:**
1. Restore intravascular volume
2. Give stress dose Steroids
3. Treat hypoglycemia
4. Vasopressors for refractory shock
Treatment guide for Adrenal Crisis:

**Fluids:** 20 mL/kg bolus of Normal Saline, repeat up to 60 mL/kg

**Hydrocortisone:** 100mg IM/IV/IO

**Glucose:**
- Adult: 25gm of D50
- Infant up to age 12: 2.5 ml/kg of 10% dextrose
- Kids > 12: 1 mL/kg of 25% dextrose

**Vasopressors:** Use for shock refractory to 60 mL/kg fluid bolus

Dosing of steroids is as indicated below with HYDROCORTISONE being the PREFERRED medication if available (may use patient's own medication if available):

**Adult patients:**
Administer hydrocortisone sodium succinate (Solu-Cortef) 100mg IM/IO/IV Push
Or
Administer methylprednisolone (Solu-Medrol) 125mg IM/IO/IV Push
Or
Administer dexamethasone (Decadron) 4 or 5 mg IM/IO/IV Push

**Pediatric patients:**
Administer hydrocortisone sodium succinate (Solu-Cortef) 2mg/kg IM/IO/IV push (to maximum 100mg)
Or
Administer methylprednisolone (Solu-Medrol) 2mg/kg IM/IO/IV Push (to maximum 125mg)
Or
Administer dexamethasone (Decadron) 4 or 5 mg IM/IO/IV Push

**Alternative Pediatric Dosing:**

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Hydrocortisone</th>
<th>Methylprednisolone</th>
<th>Dexamethasone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newborn to infant (up to 1 year)</td>
<td>25mg</td>
<td>25 mg</td>
<td>1 mg</td>
</tr>
<tr>
<td>1 year old to 7 years old</td>
<td>50mg</td>
<td>50 mg</td>
<td>2 mg</td>
</tr>
<tr>
<td>7 years and older</td>
<td>100mg</td>
<td>125 mg</td>
<td>4-5 mg</td>
</tr>
</tbody>
</table>

**Solu-Cortef Act-O-Vial** (most common home hydrocortisone prep):
To Use: Push down on the top which will break the seal and mix the liquid and powdered hydrocortisone together. The vial contains 100mg of hydrocortisone in 2ml of diluent. Give the entire contents of the vial to the patient either IV/IM/IO.

**References:**