

## **Crashing Patient/ Patient in Extremis-Adult**

### **Criteria:**

- A.** Patient in whom cardiac or respiratory arrest appears imminent.
- B.** Patient with provider impression of extremis, including new onset altered mental status, airway compromise or severe respiratory distress/failure, signs and symptoms of shock/poor perfusion.

### **Exclusion Criteria:**

- A.** Life-threatening trauma (**Follow General Trauma Protocol 2-2**)

### **Goals:**

*EMS encounters patients that are in extremis and quickly deteriorating to the point of cardiac or respiratory arrest, often while packaging and loading these patients. It is important to rapidly recognize the deteriorating patient and take immediate action where you encounter the patient to stabilize the condition before loading and transporting. The following timeline provides a prioritization of the goal directed treatments to stabilize the patient and prevent deterioration:*

### **A. Follow General Pre-Hospital Protocol (1-1)**

### **B. Immediate Actions (within First 5 Minutes)**

- 1. Airway
  - a. Insert Nasopharyngeal (Preferred) or Oropharyngeal Airway as indicated/tolerated if not following commands (GCS < 6) or no response to verbal stimuli per the **Emergency Airway Protocol (7-9)**.
- 2. Breathing
  - a. If respiratory distress or failure, sit patient up if tolerated and not contraindicated by suspected spine injury.
  - b. Provide high-flow oxygen per the **Oxygen Administration Protocol (7-12)**.
  - c. If respirations are <10 per minute, ventilate by BVM at 15LPM. Two-person, two handed technique is most effective and is highly recommended if the number of providers allows.
  - d. If respirations are >10 but inadequate, and patient is alert enough to safely permit, apply CPAP for respiratory distress/hypoxia per the **CPAP/BiPAP Protocol (7-5)**.

- e. Respirations may be assisted with BVM in sitting position if patient tolerates.
  
- f. Consider positive pressure ventilations by BVM if not following commands or SpO<sub>2</sub> <90%.

3. Monitoring – ECG, SpO<sub>2</sub>, EtCO<sub>2</sub> (if nasal prong adapter available), NIBP (if available)

### **C. Actions within First 10 Minutes**

#### 1. Circulation

- a. Electrical Therapy (cardioversion or pacing) if dysrhythmia is primary cause of shock per the **Electrical Therapy Protocol (7-08)**
- b. Emergent IV/IO access
- c. Administer Normal Saline up to 1-liter bolus, infused under pressure unless signs of pulmonary edema, per the **Shock Protocol (1-5)**.

### **D. Actions within First 15 Minutes**

#### 1. Re-assess response to treatments

#### 2. Circulation

- a. Repeat fluid bolus up to 2-liters total for adults if indicated
- b. If bradycardia, consider atropine 1 mg IV/IO, if indicated
- c. If no response to fluids (SBP<80 and decreased LOC), administer push dose Epinephrine per **Shock Protocol (1-05)**

### **E. Actions within First 20 Minutes**

#### 1. Re-assess response to treatments

2. Circulation – continue fluids/vasopressors as indicated by **Shock Protocol (1-05)** or online medical control order

3. Airway – insert advanced airway if indicated per **Emergency Airway Protocol (7-9)**.

**F. Once critical actions have been completed; move the patient to ambulance for transport.**

1. The specific lengths of time listed are approximate to provide a sense of urgency and to prioritize actions. Provider safety is of utmost importance. Care for these patients should be given as quickly as possible, but safety considerations and the scene environment may lead to times that are longer than these stated goals. When conditions make it impossible to meet these goals, the reasons should be documented.
2. Actions listed should be simultaneous and not in any specific order.
3. Follow appropriate **Shock Protocol (1-05) (Section 12-B Adults)** for push dose Epinephrine 0.01 mg/mL (prepared by mixing 1 mL of 0.1 mg/mL diluted with 9 mL NSS)

***12-B (Adults)***

- 1. Administer 10-20 mcg (1-2 mL Epinephrine 10 mcg/mL)*
- 2. Repeat every 3 to 5 minutes*
- 3. Titrate to SBP greater than 90 mm/Hg*

**Performance Parameters:**

1. Review all cases of cardiac arrest witnessed by (in presence of) EMS providers for compliance with this protocol to prevent patient deterioration.
2. Ensure that specific treatments also follow other appropriate protocols, e.g. **Airway Management, Shock, Tachycardia, Bradycardia**, etc.