

**SECTION: PM-05**

**PROTOCOL TITLE: PEDIATRIC HYPOTENSION AND SHOCK**

**REVISED: November 1, 2019**

**GENERAL COMMENTS:**

This protocol includes shock and hypotension from a myriad of causes. When another protocol is more appropriate (i.e. Allergic Reaction) it should be followed instead.

The definition of hypotension is based on blood pressure. The definition of shock is based on clinical presentation of hypo-perfusion. Use of good clinical judgment is essential.

**BLS SPECIFIC CARE:** See General Pediatric Care Protocol PM-1

**AEMT/O.M. Specific Care:** See General Pediatric Care Protocol PM-1

*IV/IO fluid therapy*

- 20 ml/kg fluid boluses over 10 minutes
- Hold for signs of pulmonary edema
- Repeat up to three times as needed to a maximum of 60 ml/kg

**ALS SPECIFIC CARE:** See General Pediatric Care Protocol PM-1

- Assess and treat underlying cause of shock, if known

**Vasopressors:** For hypotension and shock refractory to fluids and other interventions. Titrated to maintain adequate HR, MAP>65 mmHg or 100 mmHg SBP. A provider must choose the most appropriate vasopressor for the situation.

- **Norepinephrine**
  - **IV/IO Infusion: 0.01- 2 mcg/kg/min**
  - **Start at 0.1 mcg/kg/min**
- Epinephrine
  - **IV/IO Infusion:** 0.05-1 mcg/kg/min
  - First line agent for treatment of persistent hypotension during anaphylactic shock.
- Dopamine
  - **IV/IO Infusion:** 2-20 mcg/kg/min
  - Start at 5 mcg/kg/min

Protocol  
PM-05

PEDIATRIC HYPOTENSION AND SHOCK

**PHYSICIAN PEARLS:**

Pediatric Vasopressor Infusions should be administered by IV Pump

**Pediatric Hypotension:** The definition of pediatric hypotension is based on multiple factors including age and size. For the purposes of this protocol, it is defined as:

$$70 + (\text{Age in years} \times 2) = \text{Systolic B/P or } 90 \text{ mm hg, } \textit{whichever is lower.}$$

Fluid administration use should be used with caution in pediatric patients with severe congenital heart defects.