

Protocol PM-01

SECTION: PM-01

PROTOCOL TITLE: PEDIATRIC GENERAL MEDICAL CARE

REVISED: DRAFT 1 December 2022

GENERAL COMMENTS: The Pediatric Medical Protocols (PM series) are meant to supplement existing adult protocols with pediatric appropriate doses, therapies, and guidelines. As a general rule pediatric doses should not exceed adult doses.

With the implementation of the AHA current ECC recommendations, the following age recommendations are made. Newborns are defined as birth to the time the infant leaves the hospital. Infants are defined as less than 1 year of age. A child is defined as 1 year to the approximate onset of puberty (as defined by secondary sex characteristics) and 100 lbs weight. This is typically 12-14 years of age.

BLS SPECIFIC CARE:

- Basic BLS care. Obtain assessments and V/S every 15 minutes unless unstable, then reassess and obtain V/S every 5 minutes
- Oxygen administration titrated for SpO₂ < 95% or for patients with cardiac, respiratory, neurologic, or as needed
- Coordinate resources to insure prompt arrival of ALS care to the patient. Update responding ALS units as needed
- Assess blood glucose level as appropriate
- Patients with a respiratory complaint should receive supplemental oxygen, regardless of oxygen saturation
- Keep patient in safe and calm environment

AEMT/O.M. Specific Care:

12 Leads: (if feasible, indicated and available.)

Vascular Access

- IV access (to a max of 3 attempts) or IO access if needed due to severity of underlying injury or illness, otherwise consider deferring until arrival of ALS providers
 - IV: Crystalloid solution at a TKO rate. May administer 10-20 ml/kg boluses if S/S of dehydration or decomposition/shock are present, repeat as needed to a maximum of 60 cc/kg.
 - Withhold fluids and maintain IV at TKO rate if patient is hemodynamically stable or signs and symptoms of fluid overload are present

Respiratory Support (if appropriate and available)

- Consider Assisted/Intermittent Positive Pressure Ventilation
- Consider Placement of SGA
- Consider CPAP: See also Appendix 6
 - **Medical Control Required if BP less than 90 systolic.**
 - Initial setting at 5 cmH₂O, **MAX: 10 cmH₂O**

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- IO access: as needed for markedly critical patients after unsuccessful peripheral vascular access. Follow fluid administration guidelines as above

ALS SPECIFIC CARE:

Airway Management: Secure the airway using means best determined by good clinical decision making.

- See "Appendix 2: *Advanced Airway Support Supplement*" for guidelines for current and anticipated clinical needs

Cardiac Monitoring: Apply cardiac monitor as necessary

- 12-lead ECG's will only be transmitted for the following:
 - STEMI
 - On-line medical direction consults, regarding 12-lead ECG

Non-Traumatic Blood Loss: For Severe Blood Loss w/in 3 hours of onset:

- **Pediatrics**
 - IV/IO: 15 mg/kg in 250 cc over 10 minutes. Does not need a pump. 1 GM max.

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PHYSICIAN PEARLS:

Basics of Pediatric Care:

As a general rule pediatric doses should not exceed adult doses.

- Remember that most doses for Pediatric patients are expressed in mg/kg or ml/kg, not pounds. Pay attention to the difference to avoid errors.

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:

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

Proper airway positioning in airway management is essential. Avoid hyperventilation/hyperinflation with ventilation.

Communications: Notify responding ALS units and receiving hospitals ASAP of critical pediatric situations.

IV Set selection:

Consider the use of a Buretrol for an IV administration set for all medical patients under 8 years of age for fluid administration < 100 cc (excluding saline locks).

Use standard IV sets or blood tubing as needed for trauma patients under 8 years of age or for fluid administration > 100 cc.

If patient's weight is unknown, the ACCESS Pediatric Tape should be used. When the ACCESS Pediatric Tape gives a more specific drug dosage than is listed in these protocols due to weight, the ACCESS pediatric tape dosage may be used at the paramedic's discretion.

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Pediatric Drip Rule of 6's

To calculate a **DRUG** infusion, multiply the child's weight in kg by **6**. This amount of **DRUG** (in mg) is then added to enough IV solution to equal a total of 100 ml. When the resulting solution is infused at a rate of **1 ml/hr**, it will deliver a dosage of **1 mcg/kg/min**.

Pediatric Assessment Triangle

Pediatric patients tend to decompensate as a result of respiratory failure, shock, or a combination of the two. This can lead to cardiopulmonary failure if not promptly and adequately treated. The Pediatric Assessment Triangle is a visual aid to facilitate rapid evaluation of pediatric patients.

