Medical Control Guideline: PEDIATRIC PATIENTS

DEFINITION: Pediatric patients in the prehospital setting are defined as children 14 years of age and younger or, in the case that the is age unknown, the patient can be measured on the length-based resuscitation tape (e.g., Broselow™).

PRINCIPLES:

1. Pediatric patients require special consideration in assessment, treatment and medication administration.

2. Pediatric assessment includes: pre-arrival preparation, scene size-up for hazards to patient or providers, assessment of scene for signs of child maltreatment, the Pediatric Assessment Triangle (PAT), vital signs, focused history using SAMPLE (signs and Symptoms, Allergies, Medications, Past Medical History, Last food or liquid intake, and Events leading to illness or injury), and a detailed physical exam as dictated by the patient's presenting signs and symptoms and condition.

3. PAT is composed of three components Appearance, Work of Breathing and Circulation to the Skin (Figure 1).

    a. The PAT is a "rapid Assessment Tool" that uses only visual and auditory clues and requires no equipment.

    b. The PAT is intended to allow the EMS provider to:
        i. Establish the child's severity of illness
        ii. Determine sick or not sick
        iii. Recognize the general category of pathophysiology called the "general impression"
        iv. Determine the urgency of interventions

    c. Appearance: Recalled by the mnemonic TICLS, an abnormality in any component:
        i. **T**one
        ii. **I**nteractiveness
        iii. **C**onsolability
        iv. **L**ook/Gaze
        v. **S**peech/Cry

    d. Work of Breathing: Presence of any of the following implies abnormal work of breathing.
        i. Stridor
        ii. Wheezing
        iii. Grunting
        iv. Tripod positioning
        v. Retractions
        vi. Nasal flaring
        vii. Apnea/Gasping

e. Circulation to the Skin: Presence of any of the following indicates abnormal circulation to the skin or signs of poor perfusion.
   i. Pale
   ii. Mottled
   iii. Cyanotic

f. Combining the PAT assessment based on these components can be used to determine the general impression (i.e., what, if anything, is critically wrong with the patient in terms of pathophysiology) which will dictate immediate management priorities (Figure 2):
   i. Stable
   ii. Respiratory distress
   iii. Respiratory failure
   iv. Shock
   v. CNS/Metabolic disorder
   vi. Cardiopulmonary failure/Cardiopulmonary Arrest

4. Treatments, medication concentrations and drug dosages are weight-specific for the pediatric patient.

5. Accurate pediatric drug doses are obtained by:

   a. Measuring the patient against a pediatric length-based resuscitation tape (e.g., Broselow Tape™) to obtain the weight/color zone, and then
   b. Referring to the *MCG 1309* Color Code Drug Doses for the medication doses appropriate to that weight/color zone.

6. Brief Resolved Unexplained Events (BRUE) is defined as a brief episode characterized by any of the following (for children 12 months of age or younger):

   a. Absent, decreased or irregular breathing
   b. Color change (usually cyanosis or pallor)
   c. Marked change in muscle tone (usually limpness or hypotonia, may also include hypertonia)
   d. Altered level of consciousness

GUIDELINES:

1. Assess using the PAT and initiate immediate treatment based on your general impression (Stable, Respiratory Distress, Respiratory Failure/Arrest, Shock, Center Nervous System Disorder/Metabolic Disorder, or Cardiopulmonary Failure/Arrest).

2. Determine your Provider Impression and continue treatment per the corresponding Treatment Protocol.

3. Document findings of the PAT, your assessment, and your Provider Impression.

4. Obtain the patient's estimated weight utilizing a pediatric length-based resuscitation tape and document the corresponding weight and color zone on the EMS Report Form.

5. Pediatric Airway Management:

    a. Bag Mask Ventilation (BMV) is the preferred method of airway management.
    b. Nasopharyngeal (NP) airway and oropharyngeal (OP) airway are approved airway adjuncts to facilitate BMV.
    c. i-gel is the approved supraglottic airway for pediatric patients in whom: BMV is difficult or ineffective; in respiratory arrest after BMV initiated; in cardiac arrest once resuscitation priorities have been met. Sizing per *MCG 1309.*
    d. Endotracheal Intubation (ETI) is approved for patients 12 years of age or greater, or longer than the length of the length-based resuscitation tape and should be utilized for these pediatric patients when there is a need for advanced airway and i-gel is contraindicated.

6. Pediatric Cardiopulmonary Resuscitation (CPR):

    a. Use Neonatal CPR for newborns just after delivery in the first 24 hours of life
    b. Use Infant CPR for patients greater than 1 day of age to less than 13 months of age
    c. Use Child CPR for patients greater than or equal to 13 months of age to the onset of puberty

7. Automatic External Defibrillators (AED):
    Pediatric self-adhering pads or a pediatric attenuator system are recommended for infants and children younger than 8 years of age. When pediatric pads and/or a pediatric attenuator is not available, use adult AED and place front to back for infants and children

Figure 1: Pediatric Assessment Triangle

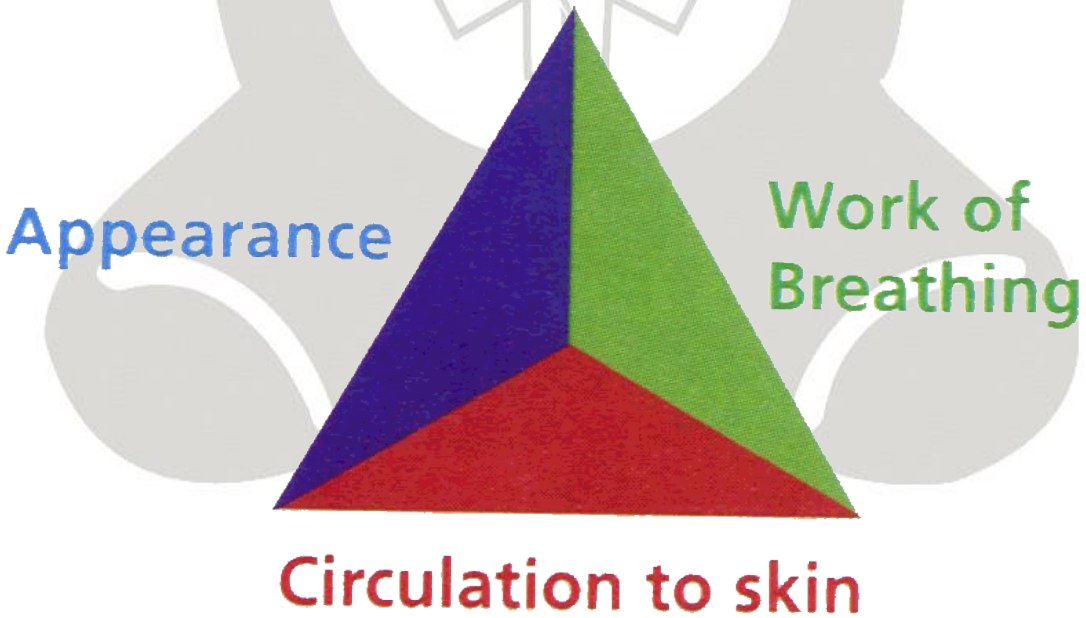

Figure 2: Using the components of the PAT to for a General Impression