

**REGION I EMERGENCY MEDICAL SERVICES  
STANDING MEDICAL ORDERS  
EMT – Basic, EMT – Paramedic**

**SMO: Pediatric Assessment Guidelines**

**Overview:** Emergencies involving pediatric patients account for about 10% or less of EMS responses. Caring for these patients presents unique challenges that relate to size, physical and intellectual maturation, and diseases specific to neonates, infants, and children. It is important to maintain and improve knowledge and clinical skills for these patients through continuing education programs and clinical application specific to this age group

There may be difference in pediatric and adult patients but there are also many similarities. In adult patients we have been trained to assess and maintain the A-B-C. In the pediatric patient the importance of assessing the maintaining **Airway, Breathing & Circulation** (A-B-C) can not be underestimated. In the pediatric patient we should think of the initial assessment as **Airway-Airway-Airway, Breathing-Breathing-Breathing & Circulation-Circulation-Circulation.**

**INFORMATION NEEDED**

- Patient age and weight
- Scene Assessment
- Initial Assessment
- Focused History / Physical Assessment
- Ongoing Assessment

**General Approach to the Stable/Conscious Pediatric Patient**

Assessments and interventions must be tailored to each child in terms of age, size and development.

- Smile if appropriate to the situation.
- Keep voice at even quiet tone, don't yell.
- Speak slowly; use simple, age appropriate terms.
- Use toys or penlight as distracters; make a game of assessment.
- Keep small children with their caregiver(s); encourage assessment while caregiver is holding child.
- Kneel down to the level of the child if possible.
- Be cautious in use of touch. In the stable child, make as many observations as possible before touching (and potentially upsetting) the child.
- Adolescents may need to be interviewed without their caregivers present if accurate information is to be obtained regarding drug use, alcohol use, LMP, sexual activity, child abuse.

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Reviewed:

Revised:

EMS/ Region1 SMOs

### **General Approach (cont)**

While walking up to the patient, observe/inspect the following:

- General appearance, age appropriate behavior. Malnourished appearance? Is child looking around, responding with curiosity or fear, playing, sucking on a pacifier or bottle, quiet, eyes open but not moving much or uninterested in environment?
- Obvious respiratory distress or extreme pain.
- Position of the child. Are the head, neck or arms being held in a position suggestive of spinal injury? Is the patient sitting up or in a tripod position?
- Level of consciousness, i.e. awake vs. asleep or unresponsive.
- Muscle tone: good vs. limp.
- Movement: spontaneous, purposeful, and symmetrical.
- Color: pink, pale, flushed, cyanotic, mottled.
- Obvious injuries, bleeding, bruising, impaled objects or gross deformities.
- Determine weight - ask child or caretakers or use length/weight tape.

#### **Airway**

- Airway Access/Maintenance with Cervical Spine Control
- Maintainable with assistance: positioning.
- Maintainable with adjuncts.
- Listen for any audible airway noises, i.e. stridor, snoring, gurgling, and wheezing.
- Patency: suction secretions as necessary.

#### **Breathing**

- Rate and rhythm of respiration. Compare to normal rate for age and situation.
- Chest expansion - symmetrical.
- Breath sounds - compare both sides and listen for sounds (present, absent, normal, abnormal).
- Positioning - sniffing position, tripod position.
- Work of breathing - retractions, nasal flaring, accessory muscle use, head bobbing, grunting.

#### **Circulation**

- Heart rate - compare to normal rate for age and situation.
- Central/truncal pulses (brachial, femoral, carotid) - strong, weak or absent.
- Distal/peripheral pulses - present/absent, thready, weak, or strong.
- Color - pink, pale, flushed, cyanotic, mottled.
- Skin temperature - hot, warm, or cool.
- Blood pressure - compare to normal for age of child. Must use appropriately sized cuff.
- Hydration status - anterior fontanel in infants, mucous membranes, skin turgor, crying tears, urine output history.

### **Disability - Brief Neuro Examination**

- Assess Responsiveness
  - A** Alert
  - V** Responds to verbal stimuli
  - P** Responds to painful stimuli
  - U** Unresponsive
- Assess pupils.
- Assess for transient numbness/tingling.

### **Documentation of adherence to protocol:**

- Patient weight
- Assessment of ABC

### **Medical Control Contact Criteria**

- Contact Medical Control if any questions arise regarding assessment of the pediatric patient

## **PRECAUTIONS AND COMMENTS**

### **Considerations for Children with Special Healthcare Needs (CSHN)**

- Refer to child's emergency care plan formulated by their medical providers, if available. Understanding the child's baseline will assist in determining the significance of altered physical findings. Parents/caregivers are the best source of information on: medications, baseline vitals, functional level/normal mentation, likely medical complications, equipment operation and troubleshooting, emergency procedures.
- Regardless of underlying condition, assess in a systematic and thorough manner. Use parents/caregivers/home health nurses as medical resources.
- Be prepared for differences in airway anatomy, physical development, cognitive development and possibly existing surgical alterations or mechanical adjuncts. Common home therapies include: respiratory support (oxygen, apnea monitors, pulse oximeters, tracheostomies, mechanical ventilators), nutrition therapy (nasogastric or gastrostomy feeding tubes), intravenous therapy (central venous catheters), urinary catheterization or dialysis (continuous ambulatory peritoneal dialysis), biotelemetry, ostomy care, orthotic devices, communication or mobility devices, or hospice care.
- Communicate with the child in an age appropriate manner. Maintain communication with and remain sensitive to the parents/caregivers and the child.
- The most common emergency encountered with these patients is respiratory related and so familiarity with respiratory emergency interventions/adjuncts/treatment is appropriate.

### Normal Vital Signs

<u>Group</u>	<u>Breaths/min</u>	<u>Beats/min</u>	<u>BloodPressure</u>
Newborn	30-50	120-160	74-100 mm Hg/50-68 mm Hg
Infant	20-30	80-140	84-106 mm Hg/56-70 mm Hg
Toddler	20-30	80-130	98-106 mm Hg/50-70 mm Hg
Preschool	20-30	80-120	98-112 mm Hg/64-70 mm Hg
School-age	(12-20)-30	(60-80)-100	104-124 mm Hg/64-80 mm Hg
Adolescent	12-20	60-100	118-132 mm Hg/70-82 mm Hg

### Assessment of Degree of Dehydration

<b>Clinical Parameters</b>	<b>Mild</b>	<b>Moderate</b>	<b>Severe</b>
<b>Body weight loss</b>			
Infant	5% (50-mL/kg)	10% (100-mL/kg)	15% (150-mL/kg)
Adult	3% (30-mL/kg)	6% (60-mL/kg)	9% (90-mL/kg)
Skin turgor	Slightly ↓	↓↓	↓↓↓
<b>Fontanelle</b>	Possibly flat or depressed	Depressed	Significantly depressed
<b>Mucous membranes</b>	Dry	Very dry	Parched
<b>Skin perfusion</b>	Warm with normal color	Cool (extremities); pale	Cold (extremities)
<b>Heart rate</b>	Mildly tachycardic	Moderately tachycardic	Extremely tachycardic
<b>Peripheral pulses</b>	Normal	Diminished	Absent
<b>Blood pressure</b>	Normal	Normal	Reduced
<b>Sensorium</b>	Normal or irritable	Irritable or lethargic	Unresponsive