General Impression
(First view of patient)

Airway & Appearance
(Open/Clear – Muscle Tone / Body Position)

Abnormal: Abnormal or absent cry or speech. Decreased response to parents or environmental stimuli. Floppy or rigid muscle tone or not moving.

Normal: Normal cry or speech. Responds to parents or to environmental stimuli such as lights, keys, or toys. Good muscle tone. Moves extremities well.

Abnormal: Abnormal or absent cry or speech. Decreased response to parents or environmental stimuli. Floppy or rigid muscle tone or not moving.

Normal: Normal cry or speech. Responds to parents or to environmental stimuli such as lights, keys, or toys. Good muscle tone. Moves extremities well.

Abnormal: Cyanosis, mottling, paleness/pallor or obvious significant bleeding.

Normal: Color appears normal for racial group of child. No significant bleeding.

Decision/Action Points:
- Any abnormal findings or life-threatening chief complaint such as major trauma/burns, seizures, diabetes, asthma attack, airway obstruction, etc (urgent) – proceed to Initial Assessment. Contact ALS if ALS not already on scene/enroute.
- All findings normal (non-urgent) – proceed to Initial Assessment.

Initial Assessment
(Primary Survey)

Breathing
(Effort / Sounds / Rate / Central Color)

Abnormal: Presence of retractions, nasal flaring, stridor, wheezes, grunting, gasping or gurgling. Respiratory rate outside normal range. Central cyanosis.

Normal: Easy, quiet respirations. Respiratory rate within normal range. No central cyanosis.

Decision/Action Points:
- Any abnormal finding – Immediate transport with ALS. If ALS is not immediately available, meet ALS intercept enroute to hospital or proceed to hospital if closer. Open airway & provide O₂. Assist ventilations, start CPR, suction, or control bleeding as appropriate. Check for causes such as diabetes, poisoning, trauma, seizure, etc. Assist patient with prescribed bronchodilators or epinephrine auto-injector or administer meds if approved and appropriate.
- All findings on assessment of child normal – Continue assessment, detailed history & treatment at scene or enroute.

Circulation
(Pulse Rate & Strength / Extremity Color & Temperature / Capillary Refill / Blood Pressure)

Abnormal: Cyanosis, mottling, or pallor. Absent or weak peripheral or central pulses; Pulse or systolic BP outside normal range; Capillary refill > 2 sec with other abnormal findings.

Normal: Color normal. Capillary refill at palms, soles, forehead or central body ≤ 2 sec. Strong peripheral and central pulses with regular rhythm.

Decision/Action Points:
- Any abnormal finding – Immediate transport with ALS. If ALS is not immediately available, meet ALS intercept enroute to hospital or proceed to hospital if closer. Open airway & provide O₂. Assist ventilations, start CPR, suction, or control bleeding as appropriate. Check for causes such as diabetes, poisoning, trauma, seizure, etc. Assist patient with prescribed bronchodilators or epinephrine auto-injector or administer meds if approved and appropriate.
- All findings on assessment of child normal – Continue assessment, detailed history & treatment at scene or enroute.

<table>
<thead>
<tr>
<th>Normal Respiratory Rate</th>
<th>Normal Pulse Rate</th>
<th>Lower Limit of Normal Systolic BP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infant (&lt;1yr): 30-60</td>
<td>Infant: 100-160</td>
<td>Infant: &gt;60 (or strong pulses)</td>
</tr>
<tr>
<td>Toddler (1-3yr): 24-40</td>
<td>Toddler: 90-150</td>
<td>Toddler: &gt;70 (or strong pulses)</td>
</tr>
<tr>
<td>Preschooler (4-5yr): 22-34</td>
<td>Preschooler: 80-140</td>
<td>Preschooler: &gt;75</td>
</tr>
<tr>
<td>School-age (6-12yr): 18-30</td>
<td>School-age: 70-120</td>
<td>School-age: &gt;80</td>
</tr>
<tr>
<td>Adolescent (13-18yr): 12-20</td>
<td>Adolescent: 60-100</td>
<td>Adolescent: &gt;90</td>
</tr>
<tr>
<td>Pules slower in sleeping child / athlete</td>
<td>Estimated min.SBP &gt;70 + (2 x age in yr)</td>
<td></td>
</tr>
</tbody>
</table>
**APGAR Score**

<table>
<thead>
<tr>
<th>Score</th>
<th>Appearance</th>
<th>Pulse</th>
<th>Grimace/Reflex</th>
<th>Activity</th>
<th>Respirations</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 pt</td>
<td>Blue</td>
<td>Absent</td>
<td>None</td>
<td>Limp</td>
<td>Absent</td>
</tr>
<tr>
<td>1 pt</td>
<td>Pink Body</td>
<td>&lt;100</td>
<td>Grimace</td>
<td>Some flexion</td>
<td>Slow/IR</td>
</tr>
<tr>
<td>2 pts</td>
<td>Blue Limbs</td>
<td>≥100</td>
<td>Cough/Sneeze</td>
<td>Active</td>
<td>Good</td>
</tr>
</tbody>
</table>

**Neonatal Resuscitation**

- Dry, Warm, Position, Tactile Stimulation
- Call for ALS back-up if needed
- Suction if airway obstruction or BVM needed
- Apnea/Gasping, HR <100 or central cyanosis
  - BVM @40-60/min with room air. O₂ if sat stays < 95%
  - HR <60 after 30 sec. BVM
  - Chest Compressions @ 120/min - 3:1
  - 1/3 to 1/2 chest depth
  - 2 thumb encircle chest or 2 fingers
  - ALS available & HR <60
  - Consider intubation
  - Epinephrine: 0.01-0.03mg/kg IV/IO/ET
  - 1:10,000
  - q 3-5 min

**CPR Notes:**
- Start CPR for cardiac arrest or HR<60 with poor perfusion.
- AEDs with pediatric capabilities preferred if patient < 25kg or 55lb (<8 yr old). If unavailable, may use adult AED.
- Do not pause CPR for more than 10 sec. for pulse checks, intubation, patient transfer or other reasons. Give medications during CPR whenever possible.

**Glasgow Coma Score**

<table>
<thead>
<tr>
<th>Eye Opening</th>
<th>Verbal Response</th>
<th>Motor Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spontaneous</td>
<td>Coos or babbles</td>
<td>Spontaneous</td>
</tr>
<tr>
<td>To speech</td>
<td>Oriented</td>
<td>Obey commands</td>
</tr>
<tr>
<td>To pain</td>
<td>Irritable crying</td>
<td>Localizes pain</td>
</tr>
<tr>
<td>No response</td>
<td>Cries to pain</td>
<td>Withdraws touch</td>
</tr>
<tr>
<td></td>
<td>Moans to pain</td>
<td>Withdraws pain</td>
</tr>
<tr>
<td></td>
<td>None</td>
<td>Abnormal flexion</td>
</tr>
<tr>
<td></td>
<td>No response</td>
<td>Abnormal extension</td>
</tr>
</tbody>
</table>

**Respiratory or Cardiac Arrest**

<table>
<thead>
<tr>
<th>VENT RATE</th>
<th>Infant 20/min</th>
<th>Child 12-20/min</th>
<th>Adol/Adult 12/min</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPRESS METHOD</td>
<td>Encircled or 2 fingers</td>
<td>1 or 2 hands</td>
<td>2 hands</td>
</tr>
<tr>
<td>DEPTH</td>
<td>1/3 (1 1/2 in)</td>
<td>1/3 (2 in)</td>
<td>2 - 2.4 in</td>
</tr>
<tr>
<td>COMPRESS RATE</td>
<td>100-120 per minute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C:V RATIO (2 people)</td>
<td>15:2</td>
<td>15:2</td>
<td>30:2</td>
</tr>
</tbody>
</table>

- Do not synchronize ventilations/compressions after intubation - ventilate at 10/min when no pulses.
- After defibrillation, do 2 full minutes of CPR starting with compressions before pulse/rhythm check.
- Adolescent/Adult protocols apply to patients with obvious signs of puberty (breast development obvious through clothing, facial hair, etc), acne, adult appearance/size, or visible axillary hair

**Pediatric ALS Guidelines**

**Asystole or PEA**
Start CPR
- Intubate if needed to maintain airway.
- Epinephrine: 0.01 mg/kg IV/IO*
  - 0.1 mg/kg ET*
  - (*0.01mg/ml = 1:10,000; 0.1mg/ml = 1:1000)
- Continue Epinephrine q 3-5 min, same dose

**Bradycardia**
Open airway & ventilate with oxygen.
- Intubate if ALOC & unmaintainable airway
- Start CPR if HR<60 with poor perfusion.
- Epinephrine: 0.01 mg/kg IV/IO*
  - 0.1 mg/kg ET*
  - (*0.01mg/ml = 1:10,000; 0.1mg/ml = 1:1000)
- Continue Epinephrine q 3-5 min, same dose
- Atropine: 0.02 mg/kg IV/IO
  - 0.03 mg/kg IV/IO
- minimum dose 0.1 mg
- maximum dose 0.5 mg child; 1 mg adol.
- Consider transcutaneous pacing as needed.

**VF or Pulseless VT**
Defibrillate q 2 min as needed
- 1st shock 2j-4j/kg, 2nd shock 4j/kg, later shocks 4-10j/kg (up to 10j/kg)
- Continue CPR, ventilate with O₂;
- Intubate if needed to maintain airway,
- Epinephrine: 0.01 mg/kg 1:10,000 IV/IO
  - (q3-5 min) 0.1 mg/kg 1:1000 ET
- Amiodarone: 5mg/kg IV/IO or
- Lidocaine: 1mg/kg IV/IO ET
- Magnesium: 25-50mg/kg IV/IO if torsades de pointes or hypomagnesemia

Consider possibility of hypoxia, hypovolemia, hypothermia, hydrogen ion (acidosis), hyper/hypokalemia, hypoglycemia, tamponade, tension pneumothorax, toxins/poisons/drugs, trauma or thrombosis (coronary or pulmonary) and treat if present.

This reference card should NOT replace or supersede regional prehospital medical treatment protocols.

Paid for by HRSA Emergency Services for Children State Partnership grant 5H33MC06724

7/2016