PEDIATRIC ASSESSMENT

Updated 2016

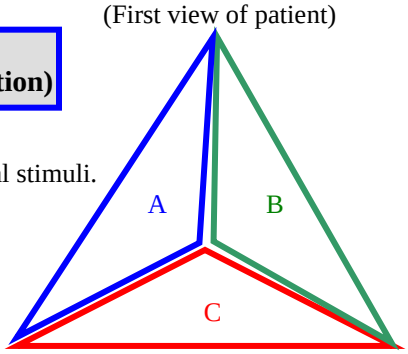
General Impression

(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.



Work of Breathing (Visible movement / Respiratory Effort)

Abnormal: Increased/excessive (nasal flaring, retractions or abdominal muscle use) or decreased/absent respiratory effort or noisy breathing.

Normal: Breathing appears regular without excessive respiratory muscle effort or audible respiratory sounds.

Circulation to Skin (Color / Obvious Bleeding)

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.

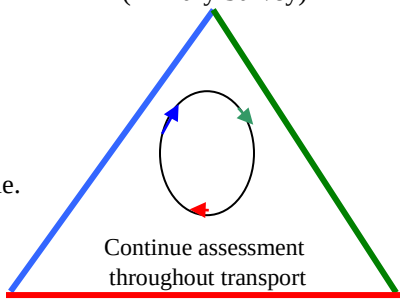
Initial Assessment

(Primary Survey)

Airway & Appearance (Open/Clear – Mental Status)

Abnormal: Obstruction to airflow. Gurgling, stridor or noisy breathing. **V**erbal**, P**ain**, or U**nresponsive on AVPU scale.

Normal: Clear and maintainable. **A**lert on AVPU scale.



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.

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 O_2. 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.

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

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

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APGAR Score

	0 pt	1 pt	2 pts
Appearance	Blue	Pink Body Blue Limbs	All Pink
Pulse	Absent	<100	≥100
Grimace/Reflex	None	Grimace	Cough/Sneeze
Activity	Limp	Some flexion	Active motion
Respirations	Absent	Slow/Irregular	Good

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. O_2 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

Glasgow Coma Score

Infants		Children /Adults
Eye Opening		
Spontaneous	4	Spontaneous
To speech/sound	3	To speech
To pain	2	To pain
No response	1	No response
Verbal Response		
Coos or babbles	5	Oriented
Irritable crying	4	Confused
Cries to pain	3	Inappropriate words
Moans to pain	2	Incomprehensible
None	1	None
Motor Response		
Spontaneous	6	Obeys commands
Withdraws touch	5	Localizes pain
Withdraws pain	4	Withdraws pain
Abnormal flexion	3	Abnormal flexion
Abnormal extension	2	Abnormal extension
No response	1	No response

Respiratory or Cardiac Arrest

	Infant	Child	Adol/Adult
VENT RATE Patient with pulses	20/min	12-20/min	12/min
COMPRESS METHOD	Encircle or 2 fingers	1 or 2 hands	2 hands
DEPTH	1/3 (1 1/2 in)	1/3 (2 in)	2 - 2.4 in
COMPRESS RATE	100-120 per minute		
C:V RATIO (2 people)	15:2	15:2	30:2
Push HARD & FAST, allow full chest RECOIL!			

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.**
- **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 ET
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 4 j /kg, later shocks 4-10j/kg (up to 10j/kg)
Continue CPR, ventilate with O_2;
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.

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