

# PEDIATRIC ASSESSMENT

**General Impression** 



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.

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

(First view of patient)
stimuli.

A

B

Circulation to Skin
(Color / Obvious Bleeding)

Work of Breathing (Visible movement / Respiratory Effort)

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

<u>Normal</u>: Breathing appears regular without excessive respiratory muscle effort or audible respiratory sounds.

<u>Abnormal</u>: Cyanosis, mottling, paleness/pallor or obvious significant bleeding. <u>Normal</u>: Color appears normal for racial group of child. No significant bleeding.

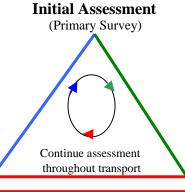
#### **Decision/Action Points:**

- 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.

# Airway & Appearance (Open/Clear – Mental Status)

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

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



# Breathing (Effort / Sounds / Rate / Central Color)

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

**<u>Normal:</u>** Easy, quiet respirations. Respiratory rate within normal range. No central cyanosis.

#### Circulation

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

<u>Abnormal</u>: 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.

<u>Normal</u>: Color normal. Capillary refill at palms, soles, forehead or central body  $\le 2$  sec. Strong peripheral and central pulses with regular rhythm.

#### **Decision/ Action Points:**

- Any abnormal finding (C, U, or P)— 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<sub>2</sub>. 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, if appropriate.
- All findings on assessment of child normal (S)— Continue assessment, detailed history & treatment at scene or enroute.

Normal Respiratory Rate:	Normal Pulse Rate:	<b>Lower Limit of Normal Systolic BP:</b>	
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 $> 70 + (2 \text{ x age in yr})$	

# **Pediatric CUPS** (with examples)

<u>C</u> ritical	Absent airway, breathing or circulation (cardiac or respiratory arrest or severe traumatic injury)
<u>U</u> nstable	Compromised airway, breathing or circulation (unresponsive, respiratory distress, active bleeding, shock, active seizure, significant injury, shock, near-drowning, etc.)
<u>P</u> otentially Unstable	Normal airway, breathing & circulation but significant mechanism of injury or illness (post-seizure, minor fractures, infant < 3mo with fever, etc.)
<u>S</u> table	Normal airway, breathing & circulation No significant mechanism of injury or illness (small lacerations or abrasions, infant ≥ 3mo with fever)

## **Neonatal Resuscitation**

Dry, Warm, Position, Tactile Stimulation. Suction Mouth then Nose. Call for ALS back-up. Administer O2 as needed.

#### Apnea/Gasping, HR <100 or central cyanosis

Ventilate with BVM @ 40-60/min

#### 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

Intubate Epinephrine  $0.0\bar{1}$ -0.03mg/kg IV/IO/ET 1:10,000 q 3-5 min

# **APGAR Score**

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

# Glasgow Coma Score

**₩EMSC** 

Infants		Children /Auurus					
Eye Opening							
Spontaneous 4 Spontaneous		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	Res	ponse					
Spontaneous	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 / Cardiac Arrest Treatment

	Infant <1yr	Child 1-8yr	Teen 9-18yr			
Ventilation only	20/min	20/min	12/min			
CPR method	2 fingers	1 hand	2 hand			
Chest Depth	1/3-1/2	1/3-1/2	1/3-1/2			
Compression Rate	≥ 100/min	100/min	100/min			
Ratio	5:1	5:1	5:1			

CPR should be started for HR<60. Only AEDs with pediatric capabilities should be used on patients < 8 yrs. of age (approx. 25kg or 55lb).

#### **ALS Guidelines**

#### **Asystole or PEA**

Assess airway & start CPR Intubate & ventilate with oxygen

Epinephrine: 0.01 mg/kg 1:10,000 IV/ IO

0.1 mg/kg 1:1000 ET

Continue Epinephrine q 3-5 min, same dose Consider hi dose 0.1 mg/kg 1:1000 IV/IO/ET

Consider possibility of hypoxia, hypovolemia, hypothermia, hyper/hypokalemia, tamponade, tension pneumothorax, toxins/poisons/drugs or

thromboembolism & treat if present.

# **Bradycardia**

Assess airway & give oxygen

Intubate if decreased consciousness Start CPR if HR<60.

Epinephrine: 0.01 mg/kg 1:10,000 IV/ IO 0.1 mg/kg 1:1000 ET

Continue Epinephrine q 3-5 min, same dose

0.02 mg/kg IV/ IO / ET Atropine

minimum dose 0.1 mg

maximum dose 0.5 mg child; 1.0 mg teen

### VF or pulseless VT

Defibrillate up to 3 times as needed 2j /kg 4j /kg 4j/kg

Start CPR, intubate, ventilate with O<sub>2</sub>

Epinephrine: 0.01 mg/kg 1:10,000 IV/ IO 0.1 mg/kg 1:1000 ET

Defibrillate 4j/kg

Amiodarone 5mg/kg IV/IO or Lidocaine 1mg/kg IV/IO/ET<u>or</u> Magnesium 25-50mg/kg IV/IO

(for torsades de pointes or hypomagnesemia)

Defibrillate 4j/kg