

PALS Tidbits

Epinephrine

IV/IO – 1:10,000 0.01 mg/kg

ETT – 1:1,000 0.1 mg/kg

Always 0.1 ml/kg no matter the concentration

BP (5th percentile)

Newborn – 60 mmHg

Up to 1 year – 70 mmHg

1 year to 10 years – $70 + 2 \times \text{age in years}$

> 10 years – 90 mmHg

Endotracheal tube sizes

Uncuffed – $\text{age}/4 + 4$

Cuffed – $\text{age}/4 + 3$

Depth – $\text{age}/2 + 12$ or $\text{ETT} \times 3$

Fluid Boluses

Isotonic crystalloid – NS or LR

Newborn – 10 ml/kg

Older than newborn – 20 ml/kg

Glucose Bolus

Newborn – D₁₀W 2 ml/kg

Older – D₂₅W 2 to 4 ml/kg

Maintenance Fluids

< 10 kg – D₅0.2%NaCl @ 4 ml/kg/hr

10 to 20 kg - D₅0.2%NaCl @ 40 ml/hr + 2 ml/hr for each kg between 10 and 20

> 20 kg - D₅0.2%NaCl @ 60 ml/hr + 1 ml/hr for each kg > 20kg

Deterioration

D displaced

O obstructed

P pneumothorax (or peritoneum or pericardium)

E equipment failure

Defibrillation

2 j/kg → 4 j/kg one shock is followed immediately by 2 minutes of CPR (up to 10 j/kg or adult maximum dose)

Cardioversion

½ to 1 j/kg, may double

Reversible Causes

Hypovolemia

Hypoxia

Hydrogen ion excess

Hypo/hyperkalemia

Hypoglycemia

Hypothermia

Toxins

Tamponade

Tension Pneumothorax

Thrombosis

coronary

pulmonary

BLS

- CAB sequence
- For CPR purposes a child is 1 to puberty, for AED purposes, a child is 1 to 8 years old
- Use adult pads for 8 years old or greater
- Infant defined as < 1 year old, may use AED on infants if standard defibrillator not available
- Start compressions if no pulse or if HR < 60 with signs of poor perfusion
- Rate of compressions is at least 100/minute
- Depth is at least 1/3 of the AP diameter of the chest (1 ½ in. for infants, 2 in. for children)
- Ratio is 30:2 or 15:2 if doing two rescuer infant or child
- Two minute cycles to switch
- Rescue breathing is 12 to 20/minute or 1 breath every 3 to 5 seconds
- Once the airway is protected, compressions continue at least 100/minute and breaths at 8 to 10/minute (every 5 to 6 seconds)
- Technique
 - Infant
 - One rescuer is two finger
 - Two rescuer is two thumbs with hands encircling chest, w/ thoracic squeeze
 - Child
 - One or two hands as needed to get adequate depth
- Airway Obstruction
 - Conscious
 - Infant – back slaps and chest thrusts (5 each continuing)
 - Child – abdominal thrusts
 - Unconscious
 - Do CPR but look in mouth before delivering each set of breaths

Assess→Categorize→Decide→Act

Primary Assessment – A, B, C, D, E

Secondary Assessment

- S – signs and symptoms
- A – Allergies
- M – Medications
- P – Past medical history
- L – Last meal
- E – Events leading to current illness or injury

Tertiary Assessment – ancillary studies to detect and identify the presence and severity of respiratory and circulatory abnormalities, may be done at any time, even during primary and secondary assessment if necessary

Categorizing is done according to type and severity

	<u>Type</u>	<u>Severity</u>
Respiratory	Lower Airway Obstruction	Respiratory distress
	Upper Airway Obstruction	Respiratory failure
	Parenchymal Disease	
	Disordered Control of Breathing	
Circulatory	Hypovolemic shock	compensated
	Obstructive shock	hypotensive
	Distributive shock	
	Cardiogenic shock	

Or a combination of the above, including cardiopulmonary failure