

## BLS – FAQ Link

Assess Vital Signs, ABC's and responsiveness, NPO, **Oxygen, Spinal Motion Restriction** as indicated, bandage wounds, stabilize suspected fractures

**DRAFT VERSION**

## ALS

Advanced airway as indicated. Assess for substance type. Check blood glucose.  
May consult California Poison Control (800) 222-1222.

**Normal Saline**

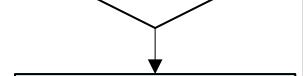
IV/IO of Normal Saline TKO.

Pediatric hypovolemic shock: IV/IO bolus of 20 mL/Kg.

Repeat up to 60 mL/Kg if indicated.

Neonatal hypovolemic shock: 10 mL/Kg.

Repeat up to 30 mL/Kg.



**Dextrose**  
Neonates < 1 month:  
D10W, 2 ml/kg IV/IO  
(0.2 g/kg)

Children > 1 month:  
D10W, 5 ml/kg IV/IO  
(0.5 g/kg, max 25 grams)  
-- OR --

**Glucagon**  
Less than 20kg: 0.5 mg  
IM/IV

Greater than 20kg: 1 mg  
IM/IV

**Neonate BGL treatment trigger is < 40mg/dL**

**Calcium Chloride 10%**  
20 mg/kg IVP or IO over 5 min



Ensure that you have patent IV line as calcium extravasation will cause tissue necrosis

**Treatment Options Based on Type of Substance**

UNKNOWN SUBSTANCE	OPIATES (KNOWN OR SUSPECTED)	TRICYCLIC ANTIDEPRESSANTS	ANTIPSYCHOTICS WITH EXTRAPYRAMIDAL EFFECTS
<b>Activated Charcoal</b> 1 G/kg mixed in water to form slurry.  Administer <b>Ondansetron</b> and be prepared for vomiting  <b>Contraindications:</b> Hydrocarbons, Gasoline and Caustics  Do not administer to infants < 12 mo  -- AND --  <b>Naloxone</b> Less than 20 kg: 0.1 mg/kg IV/IM/IO.  Greater than 20 kg: 2 mg IN via MAD or IVP/IM/IO  Do not administer to neonates	<b>Naloxone</b> Less than 20 kg: 0.1 mg/kg IV/IM/IO/IN  Greater than 20 kg: 2 mg IN via MAD or IVP/IM/IO  <i>Do not administer to neonates</i>	<b>Sodium Bicarbonate</b> Less than 2 years: 1mEq/kg IV/IO diluted 1:1 with sterile water.  <input checked="" type="checkbox"/> May repeat 0.5mEq/kg q 10 min to total of 2mEq/kg.  More than 2 years: 1mEq/kg IV/IO.  <input checked="" type="checkbox"/> May repeat 0.5mEq/kg q 10 min to total of 2mEq/kg.  If hypotensive, seizing and/or wide QRS >0.10 sec	<b>Diphenhydramine</b> 1 mg/kg IVP, IO or IM (up to max. 25 mg)  <b>ORGANOPHOSPHATES</b> <b>Atropine</b> 0.02 mg/kg IVP or IO (min dose 0.1mg, no max dose)  <b>Organophosphate:</b> Consult Protocol 11.03 <b>Special Circumstances: Chemical and Radiologic Agents</b> for further treatment  <b>BETA BLOCKER OR CALCIUM CHANNEL BLOCKER</b>  <b>Activated Charcoal</b> 1 G/kg mixed in water to form slurry.  <b>Contraindications:</b> Hydrocarbons, Gasoline and Caustics  Do not administer to infants < 12 mo



NEVER induce vomiting.

**Make Base Hospital Contact**

For approval of **Glucagon** for Beta Blocker treatment and **Calcium Chloride 10%** for Calcium Channel Blocker treatment AND/OR if Poison Control recommends treatment outside of current protocols. If PCC requests off-protocol treatments, providers should contact Base Hospital MD for approval.

Effective: xx/xx/xx

Supersedes: 03/01/15

## 8.08 PEDIATRIC POISONING AND OVERDOSE - EMSAC November 2023

BLS Treatment – ALL Pediatric Poisoning and Overdoses	
<ul style="list-style-type: none"><li>• Assess vital signs</li><li>• Assess circulation, airway, breathing, and responsiveness</li><li>• NPO</li><li>• <b>Oxygen</b> as indicated.</li><li>• Provide <b>Spinal Motion Restriction</b> as indicated.</li><li>• Bandage wounds, stabilize suspected fractures</li></ul>	
<p style="text-align: center;"><b>ALS Treatment - ALL Pediatric Poisoning and Overdoses</b></p> <p style="text-align: center;"><b>Current American Heart Association Guidelines concerning Emergency Cardiac Care assessments and interventions shall always take precedence over local protocols when there is a conflict concerning techniques of resuscitation.</b></p>	
<ul style="list-style-type: none"><li>• Advanced airway as indicated.</li><li>• Assess for substance type.</li><li>• Check blood glucose. If blood glucose &lt;60 mg/dl: <b>Dextrose</b>. If no IV or IO access: administer <b>Glucagon</b><ul style="list-style-type: none"><li>• Dextrose<ul style="list-style-type: none"><li>• Neonates &lt; 1 month: D10W 2ml/kg IV/IO (0.2g/kg)</li><li>• Children &gt; 1 month: D10W 5ml/kg (0.5g/kg, max 25 gram)</li></ul></li><li>• Glucagon<ul style="list-style-type: none"><li>• Less than 20kg: 0.5mg IM/IV</li><li>• Greater than 20kg: 1mg IM/IV</li></ul></li></ul></li><li>• IV/ IO of <b>Normal Saline</b> TKO.<ul style="list-style-type: none"><li>• Pediatric hypovolemic shock: IV/IO bolus of 20ml/kg. Repeat up to 60ml/kg if indicated.</li><li>• Neonatal hypovolemic shock: 10 ml/kg. Repeat up to 30ml/kg.</li></ul></li><li>• May consult California Poison Control (800) 222-1222.</li></ul>	
Base Hospital Contact Criteria	
<ul style="list-style-type: none"><li>• If Poison Control recommends treatment outside of current protocols.</li></ul>	
Comments	
NEVER induce vomiting for hydrocarbons (gasoline, kerosene, turpentine, Pine Sol) or caustic substances (alkali (e.g. lye or Drano) or acid substances).	

Treatment Options Based on Type of Substance	
UNKNOWN SUBSTANCE	
<ul style="list-style-type: none"><li>• <b>Naloxone</b>:</li></ul>	

## **8.08 PEDIATRIC POISONING AND OVERDOSE - EMSAC November 2023**

- Less than 20 kg: 0.1mg/kg IV/IM/IO
  - Greater than 20kg: 2mg IN via MAD or IVP/IM/IO
  - Neonate = AVOID use in neonate
- **Activated Charcoal** mixed in water to form a slurry IF patient is alert; able to maintain airway; non-acid, non-caustic, non-petroleum ingestion; it is within 1-hour of ingestion AND >1 year old.

### **KNOWN OR SUSPECTED OPIATES**

Pinpoint pupils, respiratory depression, decreased level of consciousness, hypotension and decreased muscle tone:

- **Naloxone:**
  - Less than 20 kg: 0.1mg/kg IV/IM/IO
  - Greater than 20kg: 2mg IN via MAD or IVP/IM/IO
  - Neonate = AVOID use in neonate

### **ANTIPSYCHOTICS WITH EXTRAPYRAMIDAL EFFECTS (Haldol, Haloperidol)**

Fixed, deviated gaze to one side of body, painful spasm of trunk or extremity muscles and difficulty speaking:

- **Diphenhydramine**
  - 1mg/kg IVP/IO/IM (up to 25mg max)

### **ORGANOPHOSPHATES**

SLUDGE Symptoms: Salivation, lacrimation, urination, diaphoresis/diarrhea, gastric hypermotility, and emesis/eye (small pupils, blurry vision):

- **Atropine**
  - 0.02mg/kg IV/IO (min dose 0.1mg, no max dose)
  -

**Organophosphate: Consult Protocol 11.03 Special Circumstances: Chemical and Radiologic Agents for further treatment**

### **TRICYCLIC ANTIDEPRESSANTS**

May experience rapid depression of mental status, sudden seizures, or worsening of vital signs:

- If hypotensive, seizing and / or wide QRS > 0.10 sec
- **Sodium Bicarbonate**
  - Less than 2 years: 1mEq/kg IV/IO diluted 1:1 with sterile water. May repeat 0.5 mEq/kg q10min to total 2mEq/kg
  - More than 2 years: 1 mEq/kg IV/IO. May repeat 0.5mEq/kg q10min to total 2 mEq/kg.

## **8.08 PEDIATRIC POISONING AND OVERDOSE - EMSAC November 2023**

### **BETA BLOCKER OR CALCIUM CHANNEL BLOCKER (e.g. Metoprolol)**

Bradycardia, hypotension and / or shock:

- **Activated Charcoal** mixed in water to form a slurry IF patient is alert; able to maintain airway; non-acid, non-caustic, non-petroleum ingestion; it is within 1-hour of ingestion AND >1 year old.

#### **Base Hospital Contact Criteria**

Contact Base Physician for approval of:

- **Glucagon** for Beta Blockers.
- **Calcium Chloride** 10% solution for Calcium Channel Blockers.
  - 20 mg/kg IV/IO over 5 min

#### **Comments**

Ensure that you have patent IV line as **Calcium Chloride** extravasation will cause tissue necrosis

### **CARBON MONOXIDE (CO) / HYDROGEN SULFIDE**

Consider CO poisoning if found unconscious, or has AMS, or non-specific complaints AND patient situation includes:

- Found down in enclosed space with CO source (running motors, indoor use of charcoal/ gas grill/ generator or heater malfunction)
- Multiple persons sharing the vicinity have similar symptoms.
- Environmental CO detectors are alarming.

Give 100% NRB or via BVM regardless of pulse oximeter reading.

#### **Comments**

**Patients with CO and hydrogen sulfide may have normal oxygen saturation readings, but cellular hypoxia due to displacement of the oxygen molecule from the hemoglobin in red blood cells.**