

# DROWNING - EMERGENCY MANAGEMENT – PEDIATRIC

## IH Emergency Departments

Weight (kg)

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1. **ALLERGIES:** see #826234 – Allergy and Adverse Reaction Record
2. **CONSULTS:**    Pediatrics    Intensivist    Respiratory Therapist    Anesthesia    CHARLIE
3. **MONITORING**
  - Rectal or esophageal core temperature (notify MRP if core temperature less than 36.0 degrees Celsius)
  - Spinal Motion Restriction if clinically indicated
  - Point-of-care capillary blood glucose STAT
  - Continuous SpO<sub>2</sub> monitoring
  - Continuous cardiac monitoring
  - Continuous end-tidal CO<sub>2</sub> monitoring
4. **LABORATORY STAT**
  - Acetaminophen, Salicylate, Osmol, Ethanol
  - CBC, Lytes4, Creatinine (incl. GFR), Urea, Glucose Random
  - Blood Gases - Arterial
  - Blood Gases – Venous
  - INR
  - Troponin
  - Other \_\_\_\_\_
5. **DIAGNOSTICS**
  - ECG 12 LEAD (under 2 years)   **\*\*OR\*\***
  - ECG 12 LEAD (2 to 16 years)
  - CHEST PEDS less than 17 years PORT [RAD]
  - CHEST PEDS less than 17 years [RAD]
  - C-Spine [RAD]
  - C-Spine [CT]
6. **TREATMENT** (Based on Grade Classification – see page 2)
  - Oxygen therapy delivered by most effective mode to maintain oxygen saturation goal greater than 92%  
*\*\*Do not delay oxygenation to clear foam (it is not toxic to the lungs), unless clearing to visualize for intubation\*\**
  - High flow nasal oxygen Settings \_\_\_\_\_
  - CPAP or BPAP Settings \_\_\_\_\_

Date (dd/mm/yyyy)	Time	Prescriber's Signature	Printed Name or College ID#

Grade	Associated Mortality	Signs and symptoms	Indicated interventions
1	0%	<ul style="list-style-type: none"> <li>• Cough</li> <li>• BP maintained</li> <li>• No coarse crackles on pulmonary auscultation</li> <li>• No foam in the airway</li> </ul>	<ul style="list-style-type: none"> <li>• Rest, warm and calm the victim</li> <li>• External oxygen not indicated</li> </ul>
2	0.6–1.2%	<ul style="list-style-type: none"> <li>• Cough</li> <li>• BP maintained</li> <li>• Rales in some lung fields</li> <li>• Small amount of foam in the airway</li> </ul>	<ul style="list-style-type: none"> <li>• Apply O<sub>2</sub> at 5 L/min (via nasal prongs or face mask)</li> <li>• Obtain CXR and ABG</li> </ul>
3	3.6–5.2%	Acute pulmonary edema <b>without</b> hypotension <ul style="list-style-type: none"> <li>• Cough</li> <li>• BP maintained</li> <li>• Rales in all lung fields</li> <li>• Large amount of foam in the airway</li> </ul>	<ul style="list-style-type: none"> <li>• Apply O<sub>2</sub> at 15 L/min (via face mask)</li> <li>• ABG</li> <li>• Consider Hi Flow Nasal, BiPap or mechanical ventilation with PEEP and FiO<sub>2</sub> 1.0</li> <li>• ICU admission recommended</li> </ul>
4	19.4–22%	Acute pulmonary edema <b>with</b> hypotension <ul style="list-style-type: none"> <li>• Cough</li> <li>• Hypotension</li> <li>• Rales in all lung fields</li> <li>• Large amount of foam in the airway</li> </ul>	<ul style="list-style-type: none"> <li>• Grade 3 treatment</li> <li>• IV crystalloids for maintenance of BP</li> <li>• Consider vasopressors if clinically indicated</li> <li>• ICU admission recommended</li> </ul>
5	31–44%	<ul style="list-style-type: none"> <li>• Isolated respiratory arrest</li> </ul>	<ul style="list-style-type: none"> <li>• Initiate BLS</li> </ul>
6	88–93%	<ul style="list-style-type: none"> <li>• Cardiopulmonary arrest</li> </ul>	<ul style="list-style-type: none"> <li>• Initiate PALS with focus on effective ventilation and oxygenation</li> </ul>

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**7. INTRAVENOUS THERAPY AND HYDRATION**

**Bolus IV Fluid Resuscitation**

- Lactated Ringer's Solution \_\_\_\_\_ mL IV/IO over \_\_\_\_\_ minutes (10 to 20 mL/kg over 5 to 10 minutes)  
**\*\*OR\*\***
- Sodium chloride 0.9% \_\_\_\_\_ mL IV/IO over \_\_\_\_\_ minutes (10 to 20 mL/kg over 5 to 10 minutes)

**Maintenance IV Fluids**

- D5NS IV/IO \_\_\_\_\_ mL/H

**8. MEDICATIONS**

**VASOACTIVE THERAPY**

- EPINEPHrine IV/IO continuous infusion starting at 0.01 mcg/kg/min – titrate to a max of 1 mcg/kg/min targeting MAP goal of \_\_\_\_\_ mmHg

**ANALGESICS / ANTIPYRETICS**

For patients 29 days of age to less than or equal to 3 months of age

- acetaminophen \_\_\_\_\_ mg (10 mg/kg/dose) PO/PR Q4H PRN for pain or temperature greater than 38°C (max 60 mg/kg/24H)

For patients greater than 3 months of age

- acetaminophen \_\_\_\_\_ mg (15 mg/kg/dose) PO/PR Q4H PRN for pain or temperature greater than 38°C (max 75 mg/kg/24H)

**OPIOID REVERSAL AGENTS**

- naloxone \_\_\_\_\_ mg IV/IO/IM Q3MIN PRN (0.1 mg/kg/dose if less than 5 years old or less than 20 kg **\*\*OR\*\*** 0.2 mg/kg/dose if greater than 5 years old or greater than or equal to 20 kg to max 2 mg/dose) for opioid reversal

**ANTINAUSEANTS**

- dimenhyDRINATE \_\_\_\_\_ mg PO/IV/IM PRN x 1 dose (0.5 to 1.25 mg/kg/dose to max 50 mg/dose) for nausea
- ondansetron \_\_\_\_\_ mg PO/IV Q8H PRN (0.15 mg/kg/dose to max 8 mg/dose) for nausea

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/ /			