

Pediatric Post Resuscitation Care

Return of Spontaneous Circulation (ROSC)

Optimize oxygenation and ventilation



Appropriate ETT placement

end tidal CO₂ or capnography – tube is in airway

CXR – depth of insertion

Maintain O₂ sat 94-99%

ensures adequate oxygenation

prevents risk of reperfusion injury related to excessive oxygen

Ventilate to maintain CO₂ levels appropriate to patient's condition

monitor indirectly by capnography

monitor directly by ABG

Optimize cardiac output - *Cardiac output = stroke volume x heart rate*

Stroke volume is determined by preload, contractility, and afterload



Increase preload by administering fluid boluses

May not tolerate 20mL/kg due to poor myocardial function post arrest; try 5-10mL/kg over 10-20 min

Improve contractility by correcting hypoglycemia and/or electrolyte imbalances including hypocalcemia

Inotropes (dopamine) and/or inodilators (milranone) may be needed

Avoid hypotension – treat with fluids and/or vasopressors

Maintain HR appropriate for age – aggressively treat any tachy or brady arrhythmias

Maintain adequate hemoglobin concentrations

Optimize neurologic outcome



Aggressively treat hyperthermia, hypotension, hypoglycemia, and hypoxia all of which can cause secondary brain injury.

Aggressively treat seizures which may result from: hypoglycemia, electrolyte imbalance, or underlying brain injury. Seizures increase the metabolic demand; correct the cause if possible.

Mild hypothermia is common post arrest and should not be aggressively treated.

Children resuscitated from out of hospital arrest should be maintained at either 5 days of normothermia (96.8-99.5oF) or 2 days of initial continuous hypothermia (89.6-93.2oF) then 3 days of normothermia.

Transport as needed for most appropriate level of care.