



Cardiac Arrest: ROSC and Induced Hypothermia

Assessment

Pediatric Pearls:

- Use pediatric dosing of medications or electrical therapy for a pediatric patient < 37 kg and as defined by the PEDIA Tape.
- Focus on rapid and early BLS airway and ventilation tools. Intubation may not be the best option for these patients.
- Targeted Temperature Management (TTM) not used for < 37 kg.

Signs & Symptoms:

- Return of pulse from a Non-Traumatic Cardiac Arrest

Differential:

- Continue to address specific differentials associated with original dysrhythmia.

Clinical Management Options

P	P	P	P	P	P	<ul style="list-style-type: none"> • Continue Oxygenation, target SpO₂ 92% - 96% • Expose patient and apply ice packs to axilla, neck, and groin • Use Post Resuscitation Checklist as indicated
L	L	L	L	L	L	<ul style="list-style-type: none"> • Vascular access
1	2	3	4	5	6	<ul style="list-style-type: none"> • Monitor and interpret ECG • Cold Isotonic Crystalloid bolus 30 mL/kg to max of 2 liters, infused at 100 mL/min • Advance Airway Management as needed • Resuscitation Alert if not already done so • STEMI activation if appropriate and transmit 12 lead • Midazolam or Ketamine for sedation as needed • Rocuronium <i>only</i> after advance airway placement • Norepinephrine infusion titrated to MAP ≥ 65

Consult Online Medical Control As Needed

Criteria for Targeted Temperature Management (TTM):

1. ROSC after cardiac arrest, not related to trauma or hemorrhage
2. Patient's weight is ≥ 37 kg
3. Initial temperature > 34°C (93.2°F)
4. Patient unable to follow commands

Review Pearls on Page 2 for Additional TTM Information

Cold Isotonic Crystalloid Bolus 30 mL/kg to Max of 2 Liters
Infused at 100 mL/min

Patient Weight (kg)	40	45	50	55	60	65	70 ≤
Max mL	1200	1350	1500	1650	1800	1950	2000



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Pearls:

- Refer to drug formulary charts for all medication dosing for both adults and pediatric patients.
- If patient meets other criteria for Targeted Temperature Management and does not have advanced airway, immediately provide cooling.
- If patient is hypotensive do not administer sedative/paralytic. Initiate volume replacement with cold saline.
- When exposing patient for purpose of cooling undergarments may remain in place to preserve the patient's modesty.
- Reassess airway frequently and with every patient move.
- Patients develop metabolic alkalosis with cooling. Do not hyperventilate.
- These patients should only be transported to designated Resuscitation Centers; refer to Clinical Reference.
- Notify destination ASAP when this Guideline is utilized so that the receiving unit can prepare to receive patient.
- Providers should have a controlled urgency to begin transport due to the possibility of re-arrest soon after ROSC.
- **If Vecuronium is used for patient care for Targeted Temperature Management then Midazolam MUST also be used. If Midazolam is contraindicated then do not administer Vecuronium.**
- Targeted Temperature Management should not interfere with resuscitation.