

Post Cardiac Arrest Management

Inclusion Criteria: These guidelines will establish treatment priorities for patients with a return of spontaneous circulation (ROSC) following cardiac arrest. BioTel defines ROSC as the return of an organized cardiac rhythm with a palpable pulse.

Advanced Level

1. If ROSC occurs before EMS insertion of an advanced airway and the patient does not regain consciousness, insert an advanced airway. Any approved supraglottic airway is a suitable alternative to endotracheal intubation.
2. After securing the advanced airway:
 - a. **MEDICAL Etiology:** Begin assisted ventilations at no more than 10 to 12 breaths per minute. Medics should expect a transiently elevated ETCO₂ level after achieving ROSC. Do not attempt to correct this value aggressively by over-zealous assisted ventilation or hyperventilation.
 - b. **TRAUMA Etiology:** Deliver 6 to 8 breaths per minute. Do not attempt to correct high ETCO₂ by over-zealous assisted ventilation or hyperventilation.
3. If the patient's systolic blood pressure is less than 90 mmHg (less than 70 mmHg for the pediatric patient)

a. Medical Etiology

Adult	Pediatric
<ul style="list-style-type: none">• Administer 250 ml fluid boluses as needed to maintain radial pulses• Norepinephrine bitartrate drip 8-12 mcg/min	<ul style="list-style-type: none">• Administer 20 ml/kg fluid bolus• Repeat once, if needed

b. Trauma Etiology

Adult	Pediatric
<ul style="list-style-type: none">• Administer 250 ml fluid boluses as needed to maintain radial pulses	<ul style="list-style-type: none">• Contact BioTel

4. Obtain a 12-lead ECG for medical causes of cardiac arrest. Consider transporting ST-elevation myocardial infarction (STEMI) patients to a hospital capable of immediate activation of a catheterization lab.
5. If the patient was defibrillated and frequent PVCs develop before arrival at hospital, contact BioTel for consideration of giving an antiarrhythmic medication.
6. During transport of a patient either in cardiac arrest or after ROSC, two rescuers must be present in the back of the ambulance.
7. If a patient awakens with an advanced airway in place post-cardiac arrest, medics may consider judicious use of sedation if the patient coughs, gags, or exhibits movement that might lead to inadvertent extubation.
 - a. Endotracheal tubes:

Adult	Pediatric
<ul style="list-style-type: none"> • Diazepam 2.5 mg – 5 mg IV/IO, or • Midazolam 1.25 mg – 2.5 mg IV/IO, or 5 mg intranasal • May repeat once • Contact BioTel if the patient requires additional doses 	<ul style="list-style-type: none"> • Midazolam 0.1 mg/kg IV/IO/intranasal (maximum SINGLE dose 5 mg) • May repeat once • Contact BioTel if the patient requires additional doses

b. Adult patients with supraglottic airway: Either remove the airway or use the sedation guidelines for endotracheally intubated patients.

8. For agencies that have a field hypothermia protocol: Initiate cooling

Adult	Pediatric
<ul style="list-style-type: none"> • Administer 500 ml chilled saline IV wide open. <ul style="list-style-type: none"> ○ Upon completion, resume NS IV at TKO rate. • If time permits, place cold packs at the patient's axillae and major vessels of the groin and neck. • Assess neurological and shivering status frequently. If the patient begins to awaken or shiver, give 2.5 mg dose of midazolam IVP, which may be repeated once. • Once initiated continue chilled saline infusion even if the patient deteriorates back into cardiac arrest . 	<ul style="list-style-type: none"> • Do NOT initiate cooling in the pediatric patient
Do NOT initiate cooling if the patient	
<ul style="list-style-type: none"> • Is less than 18 years old • Regains consciousness with a GCS equal to or greater than 9 • Suffered cardiac arrest as the result of trauma 	<ul style="list-style-type: none"> • Is pregnant • Was hypothermic (less than 34° C or 93° F when you arrived on the scene • Has evidence of florid pulmonary edema and volume overload

9. For additional patient care not covered under standing orders, consult BioTel.