

Immediate Post-Cardiac Arrest Care Algorithm

Return of Spontaneous Circulation (ROSC)*

Optimize Ventilation and Oxygenation

- Maintain oxygen saturation 92%
- Consider advanced airway waveform capnography
- Do not hyperventilate

Treat Hypotension (SBP < 90 mm Hg)

- IV/IO bolus
- Vasopressor infusion
- Consider treatable causes
- 12-lead ECG

Follow Commands ?

Targeted Temperature Management**

Cardiac Catheterization Laboratory

Advanced Critical Care

Doses/Details

Ventilation/Oxygenation

- Avoid excessive ventilation
- Start at 10-12 breaths/min and titrate to target PETCO₂ of 35-40 mm Hg
- When feasible, titrate FIO₂ to minimum necessary to achieve SpO₂ ≥ 92%-98%

IV Bolus

- 1-2 L normal saline or lactated Ringer's
- If inducing hypothermia, may use 4°C fluid

Epinephrine IV Infusion

0.1-0.5 mcg/kg per minute
(in 70-kg adult: 7-35 mcg per minute)

Reversible Causes

- Hypovolemia
- Hypoxia
- Hydrogen ion (acidosis)
- Hypo-/Hyperkalemia
- Hypothermia
- Tension pneumothorax
- Tamponade, cardiac
- Toxins
- Thrombosis, pulmonary
- Thrombosis, coronary

Dopamine IV Infusion

2-20 mcg/kg per minute

Norepinephrine IV Infusion

0.1-0.5 mcg/kg per minute
(in 70-kg adult: 7-35 mcg per minute)

* Sasson C, Rogers MA, Dahl J, Kellermann AL. Predictors of survival from out of hospital cardiac arrest: a systematic review and meta-analysis. *Circ Cardiovasc Qual Outcomes*. 2010;3:63-81.

** Bruel C, Parienti JJ, Marie W, Arrot X. Mild hypothermia during advanced life support, a preliminary study in out of hospital cardiac arrest. *Crit Care*. 2008;12:R31

*** Callaway CW, Donnino MW, Fink EL, Geocadin RG, Golan E, Kern KB, Leary M, Meurer WJ, Peberdy MA, Thompson TM, Zimmerman JL. Part 8: post-cardiac arrest care: 2015 American Heart Association Guidelines Update for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. *Circulation* 2015;132(suppl2):S465-S482