



ADULT TRAUMATIC OUT-OF-HOSPITAL CIRCULATORY ARREST

PURPOSE

To provide clinical management guidance for the management of adult patients with traumatic out-of-hospital circulatory arrest.

BACKGROUND

Traumatic out-of-hospital circulatory arrest (TOHCA) may result from massive hemorrhage, airway obstruction, obstructive shock, respiratory disturbance, cardiogenic cause, or massive head trauma. While resuscitation and/or transport is appropriate for some populations, it is appropriate to withhold or discontinue resuscitation attempts for TOHCA patients for whom these efforts are non-beneficial. When the etiology of arrest is unclear, particularly without clear signs of life-threatening trauma, standard cardiac arrest management is expected.

MANAGEMENT GOALS

- Early identification of reversible causes and timely use of clinically indicated life-saving interventions.
- Avoidance of non-life saving procedures that may delay transportation to a Level 1 trauma center as this is the only facility with the resources available to attempt further resuscitation of a TOHCA.

CARE GUIDELINE

The following page provides an algorithmic approach utilizing best evidence and position statements to guide the clinical management of an adult with traumatic out-of-hospital circulatory arrest.

The footnotes in the algorithm refer to the following:

- 1- If a medical cause of cardiac arrest is more likely (eg medical emergency leading to MVC, fall, etc) OR the patient has an isolated head injury, electrical injury, isolated blunt cardiac injury (commotio cordis), asphyxiation, isolated crush injury or drowning follow standard cardiac arrest guidelines.
- 2- Life Saving Interventions (LSI's) should be prioritized over chest compressions (CPR) and epinephrine administration.

REFERENCES

Breyre AM, George N, Nelson AR, Ingram CJ, Lardaro T, Vanderkolk V, and Lyng JW. (11 Mar 2025): Prehospital Trauma Compendium: Prehospital Management of Adults with Traumatic Out-of-Hospital Circulatory Arrest – A Joint Position Statement and Resource Document of NAEMSP, ACS-COT, and ACEP. *Prehospital Emergency Care*. 11 March 2025.

Approved by the Monroe-Livingston REMAC 6/15/2026



Adult Traumatic Out-Of-Hospital Circulatory Arrest Care Guideline

