

TREATMENT PROTOCOL: NON-TRAUMATIC CARDIAC ARREST (ADULT) *

1. Basic airway
2. If arrest not witnessed by EMS:
 CPR for 2min at a compression rate of at least 100/min, minimize interruptions to chest compressions
3. Cardiac monitor: document rhythm and attach ECG strip
4. If asystole, confirm in more than one lead
5. If fine V-Fib is suspected, treat with V-Fib/Pulseless V-Tach

A 12-lead ECG shall be acquired on patients who complain of chest pain/discomfort of suspected cardiac etiology, non-traumatic post cardiac arrest patients with a return of spontaneous circulation (ROSC) and/or patients who the paramedics suspect are experiencing an acute cardiac event.

ASYSTOLE / PEA	V-FIB / PULSELESS V-TACH
6. If confirmed PEA, consider causes ❶	6. Defibrillate ❸❹ Biphasic at 120-200J (typically) Monophasic at 360J
7. Venous access, if unable: place IO (if available)	7. CPR for 2min
8. Epinephrine (0.1mg/mL)❷ 1mg IV or IO	8. Venous access, if unable: place IO (if available)
9. Consider advanced airway ❺, capnography	9. Check rhythm ❸, and if indicated: Defibrillate
10. If narrow complex and heart rate greater than 60bpm: Normal saline fluid challenge 10ml/kg IV or IO at 250ml increments	10. Biphasic at 200J, monophasic at 360J
11. CPR for 2min	10. CPR for 2min
12. CONTINUE SFTP or BASE CONTACT	11. Epinephrine (0.1mg/mL)❷ 1mg IVP or IO
13. Epinephrine (0.1mg/mL) 1mg IVP or IO May repeat every 3-5min	12. Consider advanced airway ❺, capnography
14. If down time greater than 20min: Sodium bicarbonate 1mEq/kg IV push May repeat 0.5mEq/kg every 10- 15min	13. Check rhythm, and if indicated: Defibrillate
15. If resuscitative efforts are successful: Perform 12-lead ECG ❸	14. CONTINUE SFTP or BASE CONTACT
16. If resuscitative efforts are unsuccessful and the patient does not meet ALL criteria for Termination of Resuscitation in Ref. No. 814, Section II.A., consult with the Base Physician ❹	15. Amiodarone 300mg IV or IO
	16. CPR for 2min
	17. Check rhythm, and if indicated: Defibrillate
	18. Epinephrine (0.1mg/mL) 1mg IVP or IO May repeat every 3-5min
	19. CPR for 2min
	20. Check rhythm, and if indicated: Defibrillate
	21. Amiodarone 150mg IV or IO Maximum total dose 450mg
	22. CPR for 2min
	23. Check rhythm, and if indicated: Defibrillate
	25. If resuscitative efforts are successful: Perform 12-lead ECG ❸

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26. If resuscitative efforts are unsuccessful consult with the Base Physician ⑦

SPECIAL CONSIDERATIONS

- ① Consider causes of PEA: acidosis; cardiac tamponade; drug overdose; hyperkalemia; hypothermia; hypovolemia; hypoxia; massive MI; pulmonary embolus; or tension pneumothorax

Drugs to consider for specific suspected causes:

If hypoglycemia is suspected:

DEXTROSE 10% OR **DEXTROSE 50%**
250ml IV or IO 50mL IVP or IO

If narcotic overdose is suspected:

NARCAN (naloxone)
0.8-2mg IV or IO
2mg IN or IM

If dialysis patient:

CALCIUM CHLORIDE - BASE CONTACT REQUIRED
1gm IV or IO

SODIUM BICARBONATE – BASE CONTACT REQUIRED
1mEq/kg IV or IO

If tricyclic overdose suspected:

SODIUM BICARBONATE – BASE CONTACT REQUIRED
1mEq/kg IV or IO

If calcium channel blocker overdose suspected:

CALCIUM CHLORIDE – BASE CONTACT REQUIRED
1gm IV or IO

- ② Attempt to limit interruptions in CPR to no more than 10sec with advanced airway. Should utilize end tidal CO₂ monitoring for advanced airway and monitoring ROSC.
- ③ Pulse check if a change in ECG rhythm, take no longer than 10sec to check for a pulse. If no pulse is detected within 10sec, resume chest compressions.
- ④ If hypothermia is suspected, administer only one dose of epinephrine and **no other medications** until the patient is re-warmed
- ⑤ Biphasic defibrillator settings may vary; refer to manufacturer's guidelines. If unknown, use 200J for biphasic, 360J for monophasic
- ⑥ If hypothermia is suspected, defibrillate only once until the patient is re-warmed
- ⑦ If hypothermia is suspected, resuscitation efforts should not be abandoned until the patient is re-warmed, or the base hospital orders termination of resuscitative efforts
- ⑧ Post cardiac arrest patients with ROSC, with or without a 12 lead ECG analysis equivalent to "Acute MI", shall be transported to the most accessible open SRC if ground transport is 30 minutes or less regardless of service agreement rules and/or considerations.