

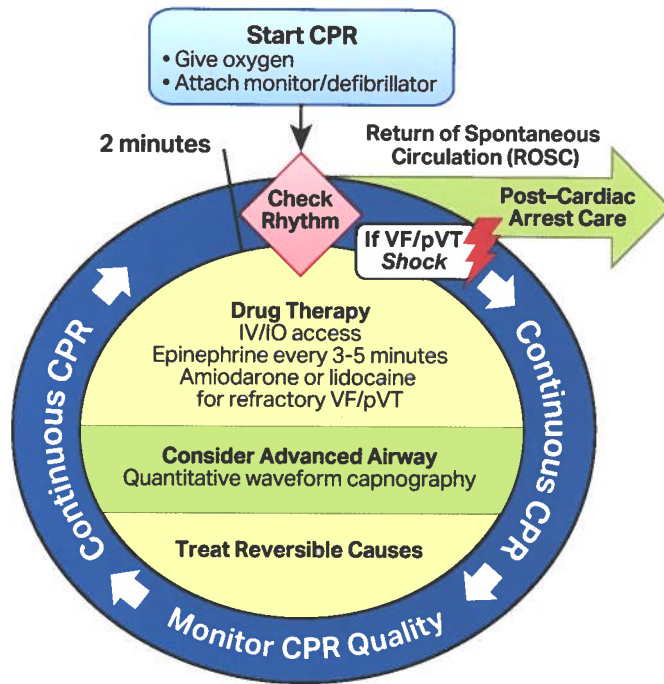


American Heart Association.

AMERICAN ASSOCIATION of CRITICAL-CARE NURSES

ACLS Cardiac Arrest, Arrhythmias, and Their Treatment

Adult Cardiac Arrest Circular Algorithm



Doses/Details for the Cardiac Arrest Algorithms

CPR Quality	Advanced Airway
<ul style="list-style-type: none"> Push hard (at least 2 inches [5 cm]) and fast (100-120/min) and allow complete chest recoil. Minimize interruptions in compressions. Avoid excessive ventilation. Change compressor every 2 minutes, or sooner if fatigued. If no advanced airway, 30:2 compression-ventilation ratio. Quantitative waveform capnography <ul style="list-style-type: none"> If PETCO₂ is low or decreasing, reassess CPR Quality. 	<ul style="list-style-type: none"> Endotracheal intubation or supraglottic advanced airway Waveform capnography or capnometry to confirm and monitor ET tube placement Once advanced airway in place, give 1 breath every 6 seconds (10 breaths/min) with continuous chest compressions
Shock Energy for Defibrillation	Return of Spontaneous Circulation (ROSC)
<ul style="list-style-type: none"> Biphasic: Manufacturer recommendation (eg, initial dose of 120-200 J); if unknown, use maximum available. Second and subsequent doses should be equivalent, and higher doses may be considered. Monophasic: 360 J 	<ul style="list-style-type: none"> Pulse and blood pressure Abrupt sustained increase in PETCO₂ (typically ≥40 mm Hg) Spontaneous arterial pressure waves with intra-arterial monitoring
Drug Therapy	Reversible Causes
<ul style="list-style-type: none"> Epinephrine IV/IO dose: 1 mg every 3-5 minutes Amiodarone IV/IO dose: First dose: 300 mg bolus. Second dose: 150 mg. <i>or</i> Lidocaine IV/IO dose: First dose: 1-1.5 mg/kg. Second dose: 0.5-0.75 mg/kg. 	<ul style="list-style-type: none"> Hypovolemia Hypoxia Hypocalcemia (acidosis) Hypo-/hyperkalemia Hypothermia Tension pneumothorax Tamponade, cardiac Toxins Thrombosis, pulmonary Thrombosis, coronary

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