

CARDIAC ARREST
VENTRICULAR FIBRILLATION/PULSELESS VENTRICULAR TACHYCARDIA

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Information Needed:

- See Cardiac Arrest Overview Protocol

Objective Findings:

- Pulseless (check carotid and femoral pulses)
- Apneic
- Confirm ventricular fibrillation or ventricular tachycardia on monitor

Treatment:

- Assess patient and confirm pulselessness (check carotid and femoral pulses)
- Start CPR and assure adequacy of ventilations and compressions
- BLS should use automatic external defibrillator if available and shock as appropriate
- Initiate and continue CPR until defibrillator is ready
- Confirm that patient is pulseless and in ventricular fibrillation or pulseless ventricular tachycardia

Ventricular Fibrillation or Pulseless Ventricular Tachycardia (Witnessed or Unwitnessed)

- CPR until defibrillation is available
- Defibrillate once with biphasic dose (200J) or monophasic dose (360J). If using monophasic defibrillation continue with 360J when indicated throughout the resuscitation.
- Resume CPR for 2 minutes immediately after the shock.
- Standard cardiac arrest care (Compressions, ventilate with 100% oxygen, IV/IO access.)
- Minimize interruptions in chest compressions (<10 seconds unless intubating).
- Check rhythm. If asystole/PEA or pulse is present, go to appropriate protocol.
- Defibrillate with 2nd biphasic dose (300J) or monophasic dose (360J).
- Consider advanced airway. Confirm ventilation with capnography.
- Resume CPR for 2 minutes immediately after the shock.
- Give epinephrine (1:10,000) 1 mg IV/IO, repeat q 3 to 5 minutes
- Defibrillate with 3rd biphasic dose (360J) or monophasic dose (360J)
- Resume CPR for 2 minutes immediately after the shock.

San Mateo County EMS Agency
Adult Treatment Protocols
CARDIAC ARREST

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- For persistent Ventricular Fibrillation, consider Lidocaine 1.0-1.5 mg/kg IV/IO, then 0.5 - 0.75 mg/kg IV/IO, maximum of 3 doses or 3 mg/kg. If patient has suspected tricyclic antidepressant overdose give sodium bicarbonate 1 mEq/kg IV/IO, repeat 0.5 mEq/kg q 10 minutes
- In the setting of renal failure, dialysis, DKA, or potassium ingestion (possible hyperkalemia), give calcium chloride 1 gm IV over one minute then flush and then administer sodium bicarbonate 1 mEq/kg IV
- If pulse is restored but the patient remains hypotensive (SBP<90), administer Dopamine 5 mcg/kg/min IV. If inadequate response, may increase every 5 minutes in 5 mcg/kg/min increments to maintain SBP > 90mmHg. Maximum dose is 20 mcg/kg/min. Consider base physician contact.
- If VT with pulse go to dysrhythmia – wide complex protocol

Precautions and Comments:

- If IO is established and lidocaine is used for discomfort, the maximum dose of lidocaine will include lidocaine treated for discomfort.