San Mateo County Emergency Medical Services

**V-Fib/Pulseless V-Tach**

For non-traumatic cardiac arrest in which any resuscitation is initiated, NOT dead on arrival

### History
- Events leading to arrest
- Estimated downtime
- Prior resuscitation attempts
- Past medical history
- Medications
- Known terminal illness

### Signs and Symptoms
- Pulseless
- Apneic

### Differential
- Medical vs. trauma
- VF vs. pulseless VT
- Asystole
- PEA
- Primary cardiac event vs. respiratory arrest or drug overdose

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**Enter from Cardiac Arrest**

1. **Defibrillation 200J**
   - Resume high quality chest compressions every 2 minutes
   - Establish IV; if unable, establish IO

2. **Defibrillation 300J**
   - Resume high quality chest compressions every 2 minutes
   - Limit changes/pulses checks < 5 seconds
   - If V-Fib/Pulseless V-Tach is refractory after 2 shocks
   - Place second set of defib pads (A/L → A/P or A/P → A/L) for future defibrillations; may alternate between pads. Continue high performance CPR and give medications during compressions

   **Lidocaine**

3. **Defibrillation 360J**
   - Resume high quality chest compressions every 2 minutes
   - Limit changes/pulses checks < 5 seconds
   - Epinephrine (1:10,000)

   **Persistent V-Fib/V-Tach**

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**AT ANY TIME**

- Return of spontaneous circulation
- Go to Post Resuscitation

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**Cardiac Arrest**

- No
  - Return of spontaneous circulation?
    - Yes
      - Go to Post Resuscitation
    - No
      - Notify receiving facility. Consider Base Hospital for medical direction

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**Effective November 2018**

**Treatment Protocol CA03**

**Effective April 2024**
Pearls

- For defibrillation or cardioversion, follow manufacturers recommendations.
- Efforts should be directed at high quality and continuous chest compressions with minimal interruptions.
- IV access, including EJ, must be attempted. If unsuccessful, then attempt IO.
- Assemble BVM with EtCO$_2$ and deliver ventilation with every 6th compression on the upstroke.
- Placement of an advanced airway should be deferred unless a provider is unable to ventilate the patient with a BLS airway and BVM.
- Use a metronome during chest compression to ensure proper rate.
- Provide resuscitative efforts on scene for 30 minutes to maximize chance of ROSC.
- Epinephrine in doses of greater than 3 mg has been shown to be detrimental to patient outcome.
- If resuscitative efforts do not attain ROSC, consider cessation of efforts per Operations 10 – Determination of Death.
- Do not interrupt chest compressions to place ETT.
- Consider breathing and airway management after second shock or two (2) rounds of chest compression (2 minutes each round).
- Effective chest compressions and prompt defibrillation are the keys to successful resuscitation.
- Reassess and document ETT placement and EtCO$_2$ frequently, after every move, and at transfer of care.
- Do not stop chest compressions to check for placement of ETT or to give medications.
- If the use of a BVM is ventilating the patient successfully, intubation should be deferred.
- In the setting of renal failure, dialysis, suspected DKA or hyperkalemia, calcium chloride followed by sodium bicarbonate shall be administered.