San Mateo County Emergency Medical Services

Refractory V-Fib/Pulseless V-Tach
Mills Peninsula Pilot Program

**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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**Symptoms**
- Pulseless
- Apneic

**Enter from Cardiac Arrest**

**V-Fib or pulseless V-Tach**

**AT ANY TIME**
- Return of spontaneous circulation
- Go to Post Resuscitation

**Defibrillation 200J**
- Resume high quality chest compressions
- Change compressors every 2 minutes (Limit changes/pulses checks < 5 seconds)
- Establish IV/IO

**Defibrillation 300J**
- Resume high quality chest compressions
- Change compressors every 2 minutes (Limit changes/pulses checks < 5 seconds)
- Epinephrine (1:10,000)

**Defibrillation 360J**
- Resume high quality chest compressions
- Change compressors every 2 minutes (Limit changes/pulses checks < 5 seconds)
- Lidoaceine

**Persistant V. fib/V-tach**
- AND phone call made

**If in Mills-Peninsula catchment area, begin transport to Mills Peninsula Hospital**
- (Go to Pg. 2)

**Return of spontaneous circulation?**
- Yes
- No

**Consider Criteria for EMS Transport for Emergent ECMO:**
- 18 – 75 years of age
- Body morphology able to accommodate automatic CPR device.
- Mills-Pen as receiving facility

**After Second Shock:**
- Notify on-call Shock Physician (650) 988-5500
- Mechanical CPR device applied
- Continue ACLS (limit 3 mg Epi), defibrillation PRN in route

**INFORMATION FOR ON-CALL SHOCK CONTACT**
- Witnessed or unwitnessed?
- Bystander CPR or no bystander CPR?
- Downtime?
- Age?
- ROSC at any time?
- Trauma?
- Co-morbidities?
- Body size (ok for LUCAS device?)

Effective April 2022
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Mills Peninsula Hospital
(From Pg. 1)

On-Call Shock Doc
- Receives call from field crew to activate SHOCK Team: Interventional Cardiologist, Cath Lab Team, IR Tech, Echo Tech, Perfusionist, Operator
- Operator Notifies: House Supervisor, Admitting for pre-registration

Patient arrival

Cath Lab ready?
- No
  - Patient boards in ED
- Yes
  - Direct to Cardiac Cath Lab
    - Arterial and venous access under US
    - Measure ABG and serum lactate

Cath Lab Initial Assessment:
- Determine CCL resuscitation discontinuation criteria:
  - ET CO₂ < 10 mmHg
  - PA O₂ < 50 mmHg
  - Serum Lactate > 18 mmol/L
- *If ≥ 1 criteria met and NO ROSC – declare patient dead

ROSC present?
- No
  - 21F Venous + 16F arterial cannulas in opposite groins
  - Initiate ECMO
- Yes
  - Immediate coronary angiogram
  - Hemodynamic support as needed

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