### Contra Costa County Emergency Medical Services

**Ventricular Assist Devices**

#### Effective Jan. 2020

- Because there may be no palpable pulse, utilize other parameters for patient assessment (e.g., LOC, skin signs, capillary refill, and EtCO₂).

#### Assess the patient

- Because there may be no palpable pulse, utilize other parameters for patient assessment (e.g., LOC, skin signs, capillary refill, and EtCO₂).

#### Assess the device

- Cardiac arrest or if patient is unresponsive and the VAD is functioning
  - Begin continuous chest compressions

- If the patient’s condition appears to be related to their VAD, and it is safe and reasonable, it is preferred to transport the patient to their Bay Area VAD Center unless the patient has any of the following conditions, which warrant transport to a closer hospital:
  - Minor medical or trauma with adequate perfusion
  - Suspected stroke patients
  - Suspected STEMI patients
  - Suspected trauma patients

- Notify receiving facility. Contact Base Hospital for medical direction, as needed.

#### Bay Area VAD Centers

- Stanford – Palo Alto
- Lucille Packard – Palo Alto
- California Pacific Med. Ctr. – SF
- U.C. San Francisco – SF
- Kaiser Santa Clara – Santa Clara
- U.C. Davis – Davis

#### Device information, implant center, and VAD Coordinator contact number may be located on the device itself, on the refrigerator, or medical alert bracelet

- If a caregiver is present, yield to their advice.
- The VAD Coordinator can assist you with determining the best course of action regarding assessment of the device. Only the Base Hospital is authorized to provide medical direction.

#### For continuous flow devices (no palpable pulse), auscultate the left upper quadrant of abdomen and listen for the “hum” of the device

- Determine if the device has power
  - If the device has power, it does not necessarily mean it is working properly
  - If the device has power, you will see a green light on the Heartmate II, the most common device
  - On the HeartWare device, the display will tell you the liters per minute of blood flow

- Check the device for secure connections and properly charged batteries

- If the pump is functioning, the problem is usually with the patient, not the device.

#### Exit to appropriate TG

- Exit to appropriate TG and transport to any approved receiving facility

- Exit to Suspected Stroke TG

- Exit to Suspected STEMI TG

- Exit to Trauma TGs

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Pearls

- Patients may be cardioverted or defibrillated if symptomatic, but asymptomatic dysrhythmias do not require treatment.
- If a VAD patient is unconscious, begin continuous chest compressions.
- Treatment should follow appropriate treatment guidelines. Medical direction is provided by the Base Hospital only; VAD Coordinators cannot provide medical direction.
- Contact the Base Hospital if there are questions concerning destination.
- If possible, the patient’s family member or caregiver should accompany the patient in the ambulance, and all related VAD equipment, including spare batteries, should also be transported with the patient.
- In arrest situations, determine if a POLST/DNR or advanced directive is available. Many VAD patients have made end of life care decisions.