

Sierra – Sacramento Valley EMS Agency Program Policy

Ventricular Assist Device (VAD)

	Effective: 06/01/2017	Next Review: 03/2020	818
	Approval: Troy M. Falck, MD – Medical Director		SIGNATURE ON FILE
	Approval: Victoria Pinette – Executive Director		SIGNATURE ON FILE

PURPOSE:

To establish guidelines for prehospital assessment and treatment and transport of patients with a Ventricular Assist Device (VAD).

AUTHORITY:

- A. California Health and Safety Code, Division 2.5, § 1797.202, 1798 and 1798.2.
- B. California Code of Regulations, Title 22, Division 9.

PROCEDURE:

- A. Follow appropriate S-SV EMS treatment protocol(s) for the patients' condition.
- B. There are no medication contraindications in relation to the VAD.
- C. **Chest compressions are CONTRAINDICATED. Chest compressions and blunt chest and/or abdominal trauma may dislodge the VAD grafts and cause sudden death.**
- D. If defibrillation or cardioversion is necessary, follow the appropriate treatment protocol. The pump is insulated so that electrical therapy should not be an issue.
- E. A patient with a VAD might not have a palpable pulse as this is a continuous flow device. However, they do have a heart rate and rhythm. The only method to establish the patient's heart rate and rhythm will be by obtaining an EKG as the patient's palpable pulse may not match their true heart rate. Treat arrhythmias according to S-SV EMS protocols, except for chest compressions.
- F. A patient with a VAD might not have a systolic and diastolic blood pressure obtainable by standard methods using a manual or automatic blood pressure cuff. The mean blood pressure (typical range is 65-100 mmHg) is typically obtained via doppler, however, auscultation may be possible.
- G. Pulse oximetry may not be measurable or accurate.

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- H. Waveform capnography monitoring is recommended if available.
- I. Overall clinical assessment is the most important clinical observation (e.g. responsiveness, skin signs and perfusion, respirations, etc.).
- J. A patient with a VAD may also have an Implanted Cardioverter-Defibrillator (ICD) or a Pacemaker/ICD.
- K. A patient with a VAD will most likely have a trained companion with them. The companion is familiar with the VAD and emergency troubleshooting. The companion should accompany the patient during transport and be responsible for the VAD whenever possible.
- L. Patients/companions are taught to call 911 in an emergency then page the on-call VAD Coordinator immediately. The VAD Coordinator will typically be on the telephone to provide additional assistance to prehospital personnel when they arrive. The patient/companion will know how to contact the on-call VAD Coordinator if necessary. In addition, contact information for the VAD Coordinator and VAD Implant Center is usually attached to or located inside the patients' VAD equipment bag.
- M. If transporting a patient to the hospital, the VAD equipment bag, power source, battery and battery charger should be brought with the patient.
- N. A patient with a VAD should typically be transported to the nearest appropriate VAD center, with preference given to their implanting center whenever possible. The patient and/or their companion should be able to advise prehospital personnel of the requested transport destination. If the patients' condition does not warrant transportation to the VAD center, or if there are any questions regarding appropriate destination, the base/modified base hospital shall be contacted for destination consultation.