# EL DORADO COUNTY EMS AGENCY
## FIELD POLICIES

**806**

(on file)

EMS Agency Medical Director

Effective: July 1, 2015
Last Revised: August 2024
Scope: BLS/ALS

## MANAGEMENT OF PRE-EXISTING MEDICAL INTERVENTIONS

**PURPOSE:**
To provide guidelines for managing pre-existing medical devices and/or medications outside of the EMT/Paramedic scope of practice.

**1) PRE-EXISTING TRANSDERMAL MEDICATIONS:**

A. Leave patches in place, except in the following situations:

I. Nitroglycerin patches prior to cardioversion/defibrillation
II. Clonidine (Catapres) or nitroglycerin patches should be removed if patient is exhibiting signs of shock (systolic BP <90)
III. Fentanyl patches in patients exhibiting respiratory depression
IV. Nicotine patches in patients exhibiting chest pain

- If patches are removed, wipe any remaining medication from the skin with a towel or cloth.
- Contact base station for consultation regarding other medications.

**2) PRE-EXISTING VENTILATORY SUPPORT:**

A. Do not disconnect the ventilation device if the device is portable and the person normally responsible for operating the device is present and able to monitor and control the ventilation device during transport.

B. Disconnect the ventilation system and ventilate the patient using a BVM if the ventilation device is:

V. Not portable, and/or
VI. Malfunctions

C. If the vent is preset, functioning normally and the person normally responsible for its operation is not able to monitor and control the ventilation device during transport, the patient may still be transported. If the vent malfunctions follow step B.

D. Ventilations should be delivered at the rate and volume pre-determined by the patient's provider.

- Contact the base station for direction if necessary.

### 3) VENTRICULAR ASSIST DEVICE (VAD):

**INFORMATION:**
Blood flow is determined by the set pump speed. It is afterload dependent (elevated blood pressure will decrease the flow) and preload sensitive (assess for dehydration, right ventricular failure, fluid overload).

A patient with a VAD will typically have no palpable pulse but they do have heart rate and rhythm. Determine what rhythm the patient is in as soon as possible. Blood pressure and pulse oximetry may not be measurable or accurate. You may be able to auscultate a humming noise over the heart, which likely indicates the pump is running. Rely on skin signs, respiratory rate, and level of consciousness to initiate further support up to and including HP-CPR.

**VAD PROCEDURE:**

A. Early base contact is strongly encouraged.

B. When consulting with the VAD Center emergency department (ED), request a VAD consult and relay the emergency situation. In most cases, the ED will arrange for the cardiologist to get on the phone.

C. Follow appropriate treatment protocol (treat underlying rhythm) for the patient's condition. If any questions or concerns contact the local VAD center the patient is linked to. Phone number is located with the equipment bag.

D. The most common reasons for VAD failure are loss of power and driveline failure. Check power including battery, line and connections.

E. VAD patients should be assessed for signs of circulation via capillary refill, skin color, and temperature.

F. Most patients with a VAD will also have an ICD or pacemaker ICD.

G. Most patients have a trained companion accompanying them. Utilize their knowledge to assist with any troubleshooting. All VAD patients have a coordinator's number attached somewhere on the machine or carry bag.

H. If transporting this patient bring the power source (A/C)/batteries and chargers with the patient to the hospital. Encourage the patient's companion to accompany if possible.

I. A patient with a VAD should typically be transported to the nearest appropriate VAD center. The patient and/or their companion will be able to advise prehospital personnel of the requested transport destination obtained through the patient's VAD hotline.

J. Contact Base Hospital for destination decision. If the 911 request was not VAD related, treat per protocol.

K. Stable patients may bypass the closest VAD Center to reach their primary VAD center, subject to operational constraints.

L. The closest VAD Centers include:
- I. UCDMC
- II. Sutter Medical Sacramento
- III. Mercy General

**VAD TROUBLESHOOTING:**

Battery/Power

1. Plug into wall power if possible.
2. Check connections.
3. Assess battery. Have the patient/companion change the battery if indicated.
4. Do not delay transport if the controller reads low battery and no recharging, wall power or new battery is available.

Controller-Related

1. Assure all cables are attached.
2. If all cables are attached and Controller is failing, have the patient/companion change the controller. You may need to assist patient with changing the controller.

Internal Device Related

1. Transport to closest VAD Center

**VAD Components:**

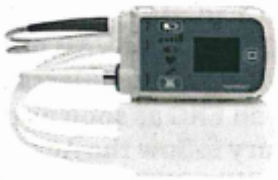
## Parts and pieces:

**1 Internal pump:**
Speed ranges: 6000-15000 RPM
Flow ranges: 3-10L/min

**2. System controller (EPC and PC)**
Controls the functions of the pump
Records events
Connects pump to power sources
Provides alarms when there is a problem with the pump

**EPC**

**PC**



**3. Batteries and battery clips**
6-10 hours of support per one pair of batteries
Four hours to recharge
Supplies power to VAD when pt mobile

**4. Power Module**
Supplies AC power to VAD

**5. Universal battery charger**
Charges 4 batteries at the time
Calibrates batteries

**6. Emergency travel bag-** Every patient should have a travel case. Inside the case should be two to four spare fully charged batteries, emergency contact info, a spare system controller, spare battery clips and a laminated card identifying the patient and the center where the device was implanted. **<u>This must be with the patient at all times.</u>**