"Community VAD" Info Sheet

It is based on the **HeartMate II** Left Ventricular Assist System (majority of current VADs).
These are guidelines / assistance for the CareFlight clinician providing emergency evaluation and intervention on a patient with a pre-existing self-contained implanted ventricular assist device (aka "**Community VAD"**).
This VAD information references product brochure(s) / manual(s) not included here.

GOAL: Initial stabilization with transfer to a "VAD center" when appropriate.

Reference HeartMate II *Information and Emergency Assistance Guide* brochure:

ALARMS: ✓ connections / ✓ power source / ✓ controller (? exchange) / ✓ issues behind VAD
Reference Heartmate II *Alarms for Clinicians* brochure for system controller warning lights & sounds.

If VAD Stops: Absence of "humming" sound (via stethoscope) just above diaphragm.
Re-start ONLY if stopped less than 2 - 3 min. & "adequate anticoagulation"; otherwise per VAD Coord.
To "restart" 1. Fix any external loose connections to the System Controller (external pack).
If pump still does not re-start:
2. Consider replacing the 2 batteries (one at a time!) with new, fully-charged pair. (Batteries are good for 3 up to 12 hrs.; charger / AC adapter is avail. from the patient.)

VAD – General Emergency Approach: *Remember – When all else fails, treat the patient!*

- **If no VAD alarms**: "Ignore the VAD" – assessment et al. per usual.
- **LOOK** for the patient's **"Emergency Contact Card."**
- **LOOK** for *extra* **batteries** (? w/ pt.) / **battery charger** or **AC adapter** (? @ home) / *extra* **system controller** (? w/ pt.).
- **Batteries**: must be charged & connected for the VAD for continuous function.
- **Anti-Coagulated**: assume the patient is anti-coagulated – coumadin is common.
- **EKG 12-Lead**: do per usual / no interference from VAD.
- **CPR**: avoid external chest compressions… unless "last ditch" & no other intervention effective.
- **Arrhythmias**: symptoms may not be classic: "think like an AED" (shock if malignant).
- **Defibrillation**: provide external defib per usual; if plugged in, d/c AC adapter during defib.
- **Pulses**: may not be detectable due to VAD continuous blood flow mechanism.
- **Blood Pressure**: *Goal* usu. SBP < 120 or MAP 70 - 90; Auto. BP OK if it registers (difficult to auscultate BP); Manual BP cuff with doppler: 1st sound ≈ MAP; Arterial line OK.
- **Pulse Oximetry**: may be difficult to obtain with "no-pulse" VADs.
- **Chest X-Ray**: incl. for verification of internal cannula placement x2 (aorta and left ventricle).
- **Resuscitation**: VAD is pre-load (RV) dependent (sensitive to volume status): ***give IVF bolus.***

General Info: *Reference* Heartmate II *Clinical Operation and Patient Management* manual.

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Immediate Resources: Contact info as noted on the patient's "**emergency contact card**."
OSU: hospital operator **(614) 293-8000** - ask for VAD Coordinator on-call.
Christ Hospital: VAD Coordinator office hours cell **(513) 585-4944 /** anytime pager **(859) 572-1609**; pager **(859) 572-5050... option 7... option 2...** for VAD physician on call re: transfer.
Cleveland Clinic: hospital operator **(800) 223-2273** or **(216) 444-2200 -** ask for VAD Coordinator on-call (**pager #23400**).
MVH CICU Resource Nurse @ x8549 – for liaison with VAD Coordinator.
Thoratec Corp. Heartline: (800) 456-1477.