



Monroe Livingston Region Program Agency

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To: All EMS Providers

From: Jeremy T. Cushman, MD, MS, EMT-P *JT Cushman*
Regional Medical Director

Date: February 11, 2011

Re: Advisory 11-03: Ventricular Assist Devices

Patients with Ventricular Assist Devices (VADs) are becoming increasingly common in our community. In response to this, the REMAC developed Protocol 2.37 – Ventricular Assist Devices, to help guide prehospital personnel in their management of patients with VADs.

The Ventricular Assist Device Protocol is attached to this document and available online at http://www.mlrems.org/e107_files/downloads/2.37_ventricular_assist_devices.pdf

. This protocol is effective immediately.

With the support of the University of Rochester Heart Center, an educational vodcast has been created to provide information about the indications, normal operation, and troubleshooting of a VAD device. The vodcast training is not mandatory, but highly encouraged and providers are eligible for one (1) hour of BLS or ALS CME following a review of the vodcast and satisfactory completion of the post test. The link for this training is <http://www.mlrems.org/page.php?137>.

With any questions, please do not hesitate to contact the Regional Program Agency.

2.37 Ventricular Assist Devices

CRITERIA

Any request for service that requires evaluation and transport of a patient with a Left Ventricular Assist Device (VAD)

1. Assess airway and breathing. Treat airway obstruction or respiratory distress per protocol. Treat medical or traumatic condition per protocol.
2. Assess pump function and circulation:
 - Listen to motor of pump over heart and observe green light on system control device.
 - Assess perfusion based on mental status, capillary refill, and skin color. The absence of a palpable pulse is normal for patients with a functioning VAD. They may not have a blood pressure.
 - **DO NOT PERFORM CPR.**
3. Perform secondary assessment, treat per protocol.
4. **Notify URMC Heart Failure Coordinator ASAP**, regardless of the patient's complaint.

Call 1-800-892-4964 and declare a "VAD EMERGENCY"
5. Bring patient's power unit and batteries to the Emergency Department. Unless otherwise directed by Medical Control, transport patient to URMC-Strong Memorial Hospital.
6. Trained support member must remain with patient.
7. Do not delay transport to hospital.

EMT-I STOP

8. If hypotensive (defined as poor perfusion based on mental status, capillary refill, or skin color):

Establish IV/IO access and administer 500ml NS bolus.

Reassess and repeat up to 1000ml total. Contact Medical Control for additional fluid boluses.
9. If patient does not have evidence of adequate perfusion and oxygenation with treatment, despite the device being on, treat with standard ACLS measures.

CONSIDERATIONS

1. Community patients are entirely mobile and independent.
2. Keep device and components dry.
3. Batteries and the emergency power pack can provide 24-36 hours of power.
4. Trained support members include family and caregivers who have extensive knowledge of the device, its function, and its battery units and are a resource to the EMS provider when caring for a VAD patient.
5. Patients are frequently on three different anticoagulants and are prone to bleeding complications.
6. Patient may have VF/VT and be asymptomatic. Contact Medical Control for treatment instructions.