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<p>SOP Title: Heartmate II LVAS Patient Assessment Protocol.</p>		
<p>Prepared by: Lawrence Kenna</p>	<p>Title: Education and Competency Officer</p>	
<p>Approved by: Dr Cathal O Donnell</p>	<p>Title: Medical Director</p>	

The Heartmate II Left Ventricular Assist System (LVAS) consists of a small, lightweight blood pump implanted in a patient's chest just below the heart. The Heartmate is connected to the Left Ventricle (LV) and the Aorta via tubing, pumping blood in a constant flow from the Left Ventricle to the Aorta. An electrical cable that powers the blood pump passes through the patient's skin to an external controller worn around the patient's waist. It is used, for patients who have left heart failure, while they are awaiting a heart transplant. As the left ventricle will not be pumping blood, the patient will have no palpable pulse and a low blood pressure.


A number of patients in the Eastern Division have been fitted with this device by the Cardio-Thoracic Department of the Mater Misericordiae Hospital.

Should you be called to a medical emergency and find a patient fitted with this device, the following protocol should be strictly adhered to:
Always contact the Mater Hospital on 8032000 (switchboard) or 8034479 (High Dependency Unit)

If the patient is conscious and stable, complete a primary survey, oxygenate, monitor vital signs, treat as appropriate and transport directly to Emergency Department Mater Hospital. Inform the Ambulance Control that the patient has a Heartmate fitted and the ETA to hospital.

If the patient is unstable but breathing, complete a primary survey, oxygenate, monitor vital signs, treat as appropriate. Place patient on cardiac monitor. Advanced Paramedics should gain IV access. Transport directly to Emergency Department Mater Hospital. Inform the Ambulance Control that the patient has a Heartmate fitted and the ETA to hospital.

If the patient is unresponsive and not breathing, check if LVAD is functioning by auscultating the left upper abdominal quadrant. A

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continuous humming sound will be heard if the device is working. If the device is not working provide artificial ventilations as necessary and treat as appropriate, however **DO NOT PERFORM CHEST COMPRESSIONS**. Shock pads should be applied and shocks delivered as appropriate. **however as these patients are also fitted with an internal defibrillator, shocks delivered by our defibrillator may be unnecessary.** Appropriate drug therapy and ventilatory assistance should be carried out. Transport the patient directly to the Emergency Department Mater Hospital. Inform the Ambulance Control that the patient has a Heartmate fitted and the ETA to hospital.

Please Note

The LVAD is monitored by a control unit and powered by batteries. Both control unit and batteries are fitted to a harness carried by the patient. The patient and a family member will be familiar with replacing batteries and switching to a spare control unit, should it become faulty.

Please ensure that the patient's spare system controller is brought with the patient as it is uniquely set up for each patient.



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