Follow Your Heart but Listen to Your Brain Too: Care Coordination of Ventricular Assist Device Patients

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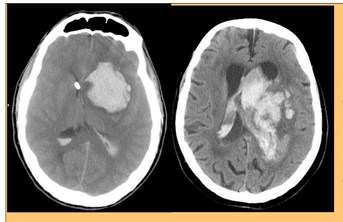
Introduction

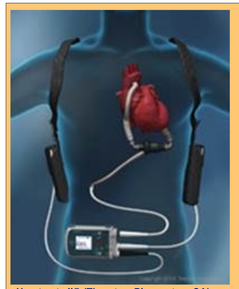
Meeting the unique care requirements as a 609 bed regional referral center that has achieved The Joint Commission's Advanced Certification in Ventricular Assist Device (VAD) Destination Therapy program requires communication, strategic planning and resource advocacy. VAD technology dictates a specialized competency set. Nurses trained at our facility undergo extensive didactic and skills demonstration annually. In a fiscally conservative approach, we have chosen to only train our cardiac critical care and progressive care nurses in VADs. A challenge with this approach is meeting the demands of patients who may require specialty critical care services outside of the cardiac domain.

Case Study 1



Mr. TL, a 29 y/o male with non-ischemic dilated cardiomyopathy and a history of rapid atrial fibrillation and systolic heart failure was status-post Heartmate II® (Thoratec, Pleasanton, CA) left ventricular assist device (LVAD) implant after suffering post-cardiotomy shock. He had previously had a mitral valve replacement due to critical mitral stenosis. He did well post-LVAD implant for approximately 14 months however he was lost to follow-up after that time. He subsequently presented nearly 6 months after being lost with a large hemorrhagic cerebrovascular accident and an INR of 6+. At that time he was critically unstable and admitted to the surgical intensive care (SICU) for neurologic intervention/care. His stay in the unit posed a great nursing and care coordination challenge as only the cardiac surgical and medical unit nursing staff were competent to care for LVAD patients. As this was a novel patient experience, the nursing team across specialties were required to come together to make a safe and appropriate care plan for this patient.

Care Coordination



Heartmate II® (Thoratec, Pleasanton, CA)

Our organization has a commitment to providing a healing culture to all patients through an expression of our Vision, Mission and Values, in which we share responsibility with patients, families, and each other to provide optimal culturally competent physical, emotional and spiritual care at all times. We strive to promote the most favorable healing environment possible for our patients and families. The basis of our nursing and professional interactions is built on our PRIDE values: Professionalism, Respect, Involvement, Dignity and Excellence...Always. We strive to always have open team and family communication and provide quality interdisciplinary team based care at all times to achieve the best patient outcomes.

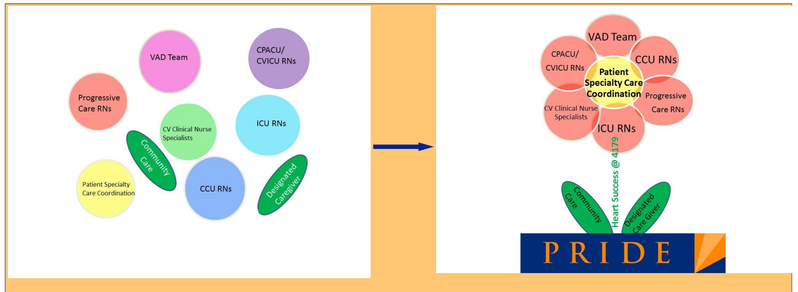
Our challenge was to meet the unique needs of the VAD patient in an atypical environment. In rising to meet the care needs, we developed a mobile VAD care team that was able to provide competent care to these patients. Through Shared Governance, staff and management worked to make sure the bedside nurses felt supported and safe.

To accomplish this a resource manual and VAD awareness training was provided to the staff. A coordinated schedule was developed for VAD competent nurses to provide VAD specific care and evaluation. A comprehensive chain of command was established between the SICU and cardiac care units to ensure all care needs were met. The cardiac care unit nurses provided comprehensive VAD care inclusive of assessments, documentation and VAD checks at the patient's beside in the SICU. If the patient required testing outside the SICU they were transported by the cardiac care unit nurse. If there were neurologic monitoring needs required in transport the cardiac care unit nurse and SICU nurse provided a combined transport and each cared for the patient's special needs. This ensured all patient care needs were addressed at all times. There was also an open communication line between cardiac care units and the SICU for each shift if any questions arose between transports or VAD assessments.

Case Study 2

A 52 year old female with ischemic cardiomyopathy, chronic systolic heart failure, and a Heartmate II® (Thoratec, Pleasanton, CA) LVAD presented to the emergency department with complaints of mental status changes and slurred speech. She had received the LVAD approximately 6 months prior after suffering a witnessed cardiac arrest and a large anterior wall myocardial infarction. A CT scan revealed a subarachnoid hemorrhage with two areas of cortical hemorrhage. She was then transferred to the SICU for medical management. Prior to her arrival to SICU the VAD care coordination plan was initiated. The staff nurses and residents were given a basic overview of the LVAD and educated on the steps needed to take in the event of an emergency or LVAD problem. With the aid of the clinical nurse specialists a schedule was developed for nurses from the cardiac care units to assess the LVAD and its parameters every 2 hours. When the patient had to go off the floor for repeat CT scans, the patient was accompanied by a cardiac care unit nurse.

Outcomes



This model of open communication and collaboration across service lines has proven effective to deliver high level comorbid care to our patients with positive outcomes. Nurses throughout the hospital have felt supported in caring for patients not commonly encountered in their practice environment.