Working With a Depressed Patient With Ventricular Assist Device

The problem to be solved was caring for a psychiatrically-ill patient with a Left Ventricular Assistive Device (LVAD) in the acute care psychiatric setting. A ventricular assist device (VAD) helps pump blood through the body when, for example, a ventricle lacks sufficient strength to perform this function. More specifically, left ventricular assist devices (LVADs) have been used to assist in the flow of oxygenated blood through the body. The care of medically compromised patients in our psychiatric setting has become routine, however the specifics related to the technology involved with the care of this patient provided new challenges; challenges that have limited the access to care in several clinical settings for these patients. Our goal was to work with the LVAD team to provide access to acute psychiatric treatment for this patient and hopefully population of patients.

In this case care was required for a severely depressed and sometimes delirious patient who was on a cardiac unit with ischemic cardiomyopathy and class IV heart failure. This patient also suffered from a host of co-morbid medical conditions including hypertension, Type II Diabetes and morbid obesity. An LVAD was surgically implanted (2007) but since the patient required treatment for severe depression, and suffered from suicide ideation and passive death wishes, he was transferred to our inpatient psychiatric unit. It is the responsibility of the mental health clinicians to care for patients no matter how potentially complex the medical needs may be. It is important to plan ahead, prepare and educate staff so that the best care possible can be achieved in the safest manner. The problems were easily identified. How do we care for this psychiatrically ill and suicidal patient with no prior experience with a LVAD device? How do we ensure that the patient does not act on his suicidal thoughts since we were told he knew how to manipulate the LVAD? And do we rely on this patient to operate the machine when he is prone to delirium and confusion? There was a knowledge deficit when caring for patients with LVAD devices and a systematic approach was needed to solve this issue.
**PROCESS:**

The plan of care for this patient was discussed at the departmental leadership meeting with director input prior to the patient’s arrival on the unit. Staff from the cardiac and psychiatric services met in consultation before transferring the patient to psychiatry. A plan was made to address educational needs of staff so that all of the patients needs could be met completely and safely. Staff on psychiatric service met during rounds to evaluate individuals risk for suicide. We continued to the process even after patient was transferred to the cardiac unit and several weeks later we “debriefed” with the VAD team to improve the process. Fall 2009, all staff was assigned to attend the unit workshop which included an hour of lecture on LVAD by the nurse practitioner from the VAT team.

**SOLUTION:**

We worked closely with the Cardiac LVAD team and decided that communication meetings and in-services were required for our mental health clinicians. The LVAD team consisted of nurse practitioners, physicians and perfusionist. The LVAD has complex components to the machine so intensive education was needed to prevent detriment to the patient; our clinicians were highly aware of this. We chose to identify key point staff that would care for this patient. Teaching hand-outs were distributed and several real-time in-services were provided prior to the patients’ transfer to our unit. A 24 hour on call system was set up so that any one of our mental health clinicians could call a VAD expert to trouble shoot problems with the machine or deal with acute cardiac symptoms. Ongoing consultation was provided on a daily basis by the VAD team and multidisciplinary rounds continued daily to address the acute psychiatric and medical needs. We also, required that the VAD team assess the patient daily to ensure that he could manage his LVAD without assistance and that their assessment of this patient be documented daily and communicated to the psychiatric treatment team.
Outcomes:

During the stay, emergent cardiac and respiratory symptoms developed and the patient was eventually transferred to the cardiac ICU. The patient had a length of stay on the psychiatric unit for twenty four days. During the twenty four days, the psychiatric clinicians were able to care for the psychiatric and medical problems, as well as successfully operate the VAD. The patient received psychotherapy, pharmacology, support, and education for his acute psychiatric symptoms. In addition, we have developed a system and continue to improve this system by sending our staff to specialized LVAD workshops.