Purpose: The prevalence of heart failure has been rising worldwide over the past decades because of aging populations. Left ventricular assist devices (LVADs) have been shown as a bridge to transplantation and to increase quality of life, survival rate and length days. LVADs have become more common as elective and play an increasingly important role in clinical. Caregivers need to be able to provide continuous and comprehensive care for such patients and management the alarms of the devices, potential complications. We try to improve the quality of care by establishing a standard care module and simulation education about troubleshooting for LVADs in one cardiovascular surgery intensive care unit (CVSICU) in Taiwan.

Methods: The nurse managers, nurse educators, Intensive care unit director and staff nurses were involved in this program. Before starting the program, we tested nurses on their knowledge and attitudes to LVADs. Interventions were developed in three domains – practice, equipment and policy. After empirical literature search, with clinical common situation, the Ad hoc group set up a standard care module. We made a standard check list for LVADs daily care. Then staff nurses were asked to attend educational sessions on monitor set up and troubleshooting practice. An audit mechanism had been established to ensure the correctness and maintenance of LVADs care. The interventions were implemented from January to May of 2015. The outcomes were evaluated by knowledge scores and the simulation troubleshooting score in the CVSICU.

Results: A total of 21 staff nurses completed the education sessions. The average knowledge scores improved from 44.3 to 86.2 and the scores ≥80 increased from 2 to 19 staff nurses. The simulation troubleshooting score for system increased from 70% to 98%. Visual Analogue Anxiety Scale (VAAS) >70mm decrease from 11 to 6 staff nurses after the quality initiative implemented.

Conclusion: The findings of this project suggest that by empirically establishing a standard care module and simulation education training, we can not only decrease the health providers’ anxiety but also enhance their ability to care for LVADs and provide a safety and quality care environment for patients.
Keywords:
Left ventricular assist devices, intensive care unit and standard care module

References:

Abstract Summary:
Left ventricular assist devices have become more common as elective and play an increasingly important role in clinical. Caregivers need to be able to provide continuous and comprehensive care. We try to establish a standard care module and simulation education about troubleshooting for LVADs.

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