

Implementation of a Quality Improvement Program to Increase Early Mobilization in the Medical Intensive Care Unit

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Background

- Early mobility improves functional capacity, delirium rates, duration of mechanical ventilation, and ICU length of stay.
- Point prevalence data from the United States was reviewed and estimated that out of bed mobility was delivered on 16% of total patient days to mechanically ventilated patients. [1]
- The rate of mobilization in the MICU at HCMC is below the reported average.

Aim

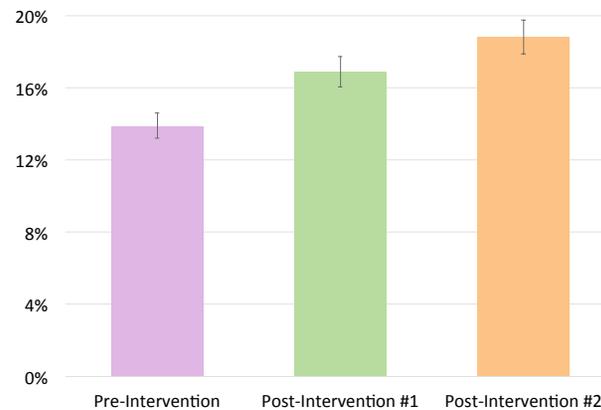
- To implement a nursing protocol that increases the daily rate of mobilization in the HCMC MICU from 1/2017 to 7/2018.

Methods

- A multidisciplinary team reviewed current practices and identified barriers to mobilization.
- Mobilization was defined as sitting in a chair for >30 minutes.
- Two interventions were performed:
 1. January 2017: Nursing teams were educated via didactic lectures that highlighted improved patient outcomes as a result of mobilization. Protocols were established for safe patient mobilization. Surveys identified barriers related to staffing and equipment. These barriers were addressed.
 2. October 2017: Contraindications to mobility were clearly defined (PEEP > 10, FiO2 > 60%, hemodynamic instability). Adherence to the policy was emphasized and appropriateness of mobilization in individual patients was discussed daily on multidisciplinary rounds. Physical Therapy was consulted if specific barriers were identified.
- Logistic regression was used to examine the association between the interventions and mobility.

Results

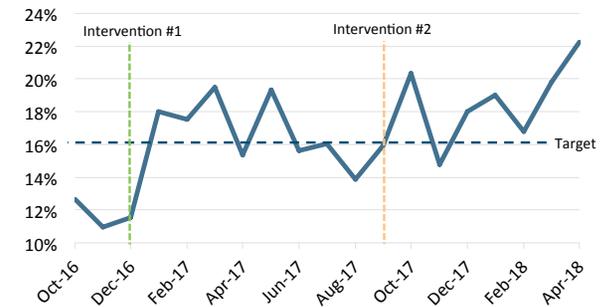
Bar Graph of Frequency of Mobilization by Intervention Period



	Frequency of Mobilization n, % (95%CI)	Odds Ratio (95%CI)
Pre-Intervention (2016)	1310/9440 13.9% (13.2-14.6)	
Intervention Period #1 (Jan. 2017 – Sept. 2017)	1115/6615 16.9% (16-17.8)	1.26 (1.15-1.37)
Intervention Period #2 (Oct. 2017 – Apr. 2018)	940/5003 18.8% (17.7-19.9)	1.44 (1.31-1.58)

Results

Run Chart: Frequency of Mobilization by Month



Outcomes and Conclusions

- We successfully implemented a program that increased the rate of mobilization in our MICU above the national average.
- Clearly defined exclusionary criteria helped overcome common misconceptions that were limiting the number of patients being mobilized.
- The following aspects were essential to our program's success:
 - Continuing education of all staff regarding the benefits of early mobilization.
 - Multidisciplinary approach involving Nursing, Physical Therapy and Critical Care Physicians

References: Jolley SE et al. Point Prevalence Study of Mobilization Practices for Acute Respiratory Failure Patients in the United States. *Crit Care Med*, 2/2017