



Early Exercise and Mobilization in the Medical Intensive Care Unit

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The Problem

- Understanding the long term effects of critical illness on patients and families.
- The challenge is to inform healthcare providers about the potential consequences of ICU admissions.

Our Goal

- To improve our early exercise and mobilization statistics by 10% at *the accomplished activity level*, thereby decreasing the long term effects of Post- Intensive Care Syndrome.

Statistics

Cognitive Function

- 30-80% of patients have an impairment after their ICU stay.
- 90% of ICU patients declared that they would rather die than survive with cognitive impairment.

Psychological Function

- 10-50% of ICU survivors experience anxiety, depression, PTSD, & sleep problems.

Functional Deficits

- 75% of ventilator patients have difficulty with ADL's 1 year after discharge.
- 15% of ICU patients are still weak 2 years after discharge.

Effects on family members

- 70% experience anxiety/depression.
- 1/3 of all family members experience PTSD within 90 days after the patient is discharged or dies.

Patients At Risk For ICU Acquired Weakness

- 33% of all patients on ventilators.
- 50% of all patients admitted with severe infection.
- Up to 50% of patients who stay in the ICU for at least one week.
- Patients on high levels of Sedation.
- Patients who experience Delirium, Hypoxia, and Hypoglycemia.
- Patients who are Immobilized.

The Effects of Prolonged ICU Stay

Intensive Care acquired neuromuscular weakness and/or functional impairment without a plausible etiology

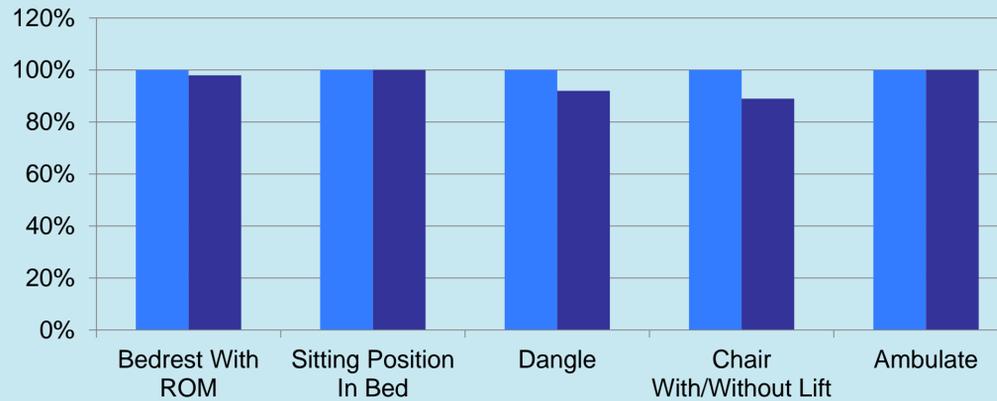
- Reduces functional mobility.
- Impairs ventilator weaning and may prolong ventilator time up to 20 additional days.
- Increases mortality.
- Effects persist well after discharge.

Method Used

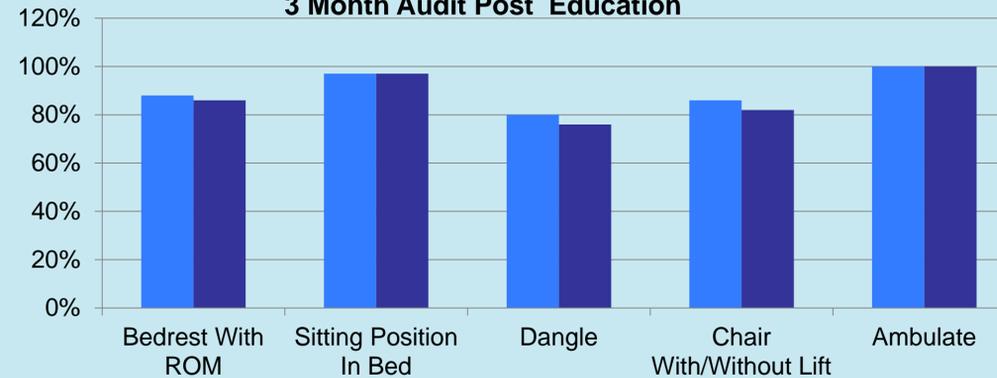
- Baseline data was collected by the charge nurse on our existing mobilization practices over a two month period.
- Staff education was presented to all staff on a one to one basis describing the long term effects of Post-Intensive Care syndrome.
- A Range Of Motion instruction guide was developed in conjunction with Physical Therapy and presented to family and staff.
- Follow-up audits were completed at three month intervals post education.

Data

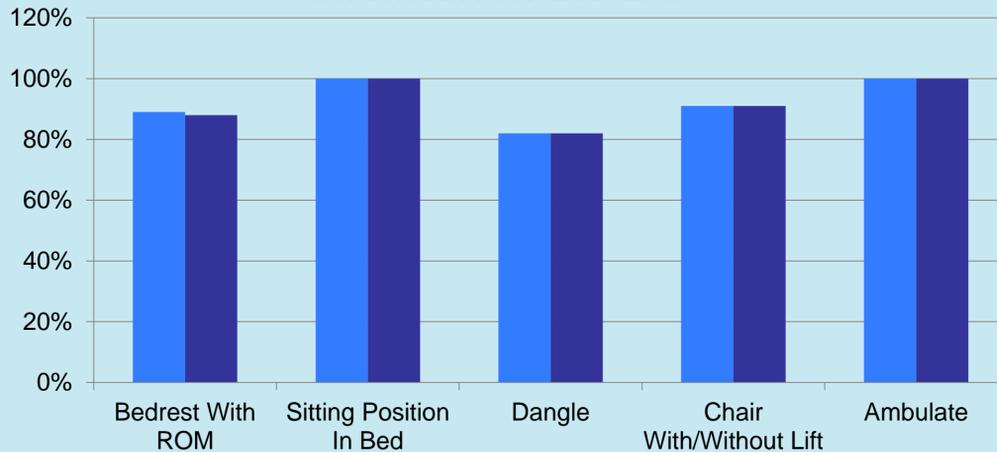
Baseline Mobilization Practices



3 Month Audit Post Education



6 Month Audit Post Education



■ Activity Attempted ■ Activity Accomplished

Results

- Findings revealed ROM exercises improved by 7% from the 86% baseline.
- Sitting position in bed improved by 3% from the 97% baseline.
- Dangle position improved by 11% from the 76% baseline.
- Mobilizing to chair with or without a lift improved by 8% from the 82% baseline.
- Patients who ambulated remained stable at 100%

Factors Affecting Results

- Results were influenced by the following: high acuity in the MICU, patient refusal, deteriorating patient status, agitation, pain, tests and procedures, comfort care status, and unavailability of patient lift.

Implications for Practice

In order to reduce the long term effects of Post- Intensive Care Syndrome, nurses must increase their awareness regarding the benefits of early exercise and incorporate early mobilization into their daily practice.

References

Davidson J, Harvey M, Schuller J, et al. Post-Intensive Care Syndrome: What it is and how to prevent it. American Nurse Today, 2013. 8(5):32-38.

Post-Intensive Care Syndrome Topic Page on the Society of Critical Care Website: <http://www.mycicare.org/Adult-Support/Pages/Post-Intensive-Care-Syndrom.aspx>