Early Physical Therapy in Critically Ill Patients Decreases Hospital Length of Stay

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Introduction
Recent evidence indicates that reviving principles of early mobility within the intensive care unit (ICU) may decrease both ICU and hospital length of stay (LOS).1-4 We sought to determine if using a physical therapy (PT) driven early mobility protocol will result in decreased ICU LOS, days on mechanical ventilation (MV) and hospital LOS at a university affiliated ICU.

Methods
This IRB approved study included all medical patients admitted to the Medical/Surgical ICU at Lehigh Valley Health Network, Allentown PA (n=1197). Patients without PT orders (n=478), patients readmitted to the ICU (n=33, total of 71 admissions), patients transferred among multiple ICUs (n=58) and patients whose PT orders were not placed until after leaving the ICU (n=129) were excluded from the study.

For 10 weeks (intervention period) we increased the PT staffing ratio in the ICU from 0.7 FTE/36 patients to 4 FTE/36 patients and compared this to the 10 week period prior to intervention (control group 1) and 10 week period post intervention (control group 2). Data collected included age, gender, MS-DRG code, number of patients on mechanical ventilation (MV), time on MV and discharge destination. Hospital LOS and ICU LOS were compared for all patients using ANOVA comparison of groups. Patients that required MV during their ICU stay were also analyzed by ANOVA comparison of groups. The comparison of patient actual LOS versus expected LOS based on MS-DRG was performed using a chi-square test.

Conclusions
Physical Therapists are trained to identify movement disorders and implement a plan of care that progresses a patient from debilitation to independence. In this study of 486 patients, we found implementing a PT driven early mobility protocol significantly decreased hospital LOS. Also, patients during the trial period had LOS shorter than expected based on their MS-DRG.

References: