How To Implement A Transdisciplinary Early Activity Program In Your ICU

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Purpose: The overall purpose of this platform is to present a method utilized by Johns Hopkins Hospital, Johns Hopkins Bayview Medical Center and the University of California, San Francisco Medical Center to develop a program to reduce the harm of ICU acquired weakness; part of the large Project Emerge.

Description: Immobility of ICU patients is a major cause of ICU acquired weakness (ICUAW) and exposure to further subsequent complications¹-³. Previous studies have shown that ICUAW is a potentially modifiable risk factor and that early mobilization of patients in the ICU is both safe and feasible⁴ while decreasing length of stay and improving functional status in the Medical ICU³. Reproducibility of these studies and implementation of an early rehabilitation program is often limited by many barriers, including the availability of therapy staffing resources allocated to an ICU⁵.

In a grant funded by the Gordon and Betty Moore Foundation, The Armstrong Institute for Patient Safety and Quality at Johns Hopkins Medicine set out to redesign the ICU to eliminate the most common causes of preventable harm⁶ and to better meet the needs of patients, families and clinicians. Project Emerge brought together 18 disciplines, including clinicians and systems engineers with patients and their families, who were involved in redesigning the ICU workflow, culture and technology. Of the identified seven preventable harms which patients are most commonly exposed to in a critical care setting, ICUAW was the area where rehabilitation services
found critical involvement. Project Emerge sought to apply a transdisciplinary approach to ICUAW. Specific outcome measures used across the institution track a patient's level of impairment (Boston University's Activity Measure for Post Acute Care [AM-PAC])\textsuperscript{7} and daily achievement in mobility milestones (Johns Hopkins Hospital Highest Level of Mobility [JHH-HLM])\textsuperscript{8}. Daily rounds by a rehabilitation professional (occupational, physical, or speech therapy) with the bedside nurse, compares a patient's premorbid level of function to current functional status while considering, admitting diagnosis, surgical procedures, and current medical management. Using this information achievable mobility goals are set for that day and assigned to rehabilitation staff, nursing, or family/patients. Data on achieving this goal is entered or pulled from documentation as part of ongoing quality improvement to reduce barriers and improve adherence to recommendations.

**Summary of Use**: This platform will describe the quality improvement process utilized in the development of an ICU acquired weakness harm reduction program in an ICU environment utilizing standardized outcome measures within a transdisciplinary model.

**Importance to Members**: This platform is designed to introduce a reproducible strategy for implementing a transdisciplinary approach to creating a culture of mobility and activity in an ICU without requiring additional rehabilitation staff or resources.