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Practicum Site: Vanderbilt University Medical Center - Age-Friendly Health System

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Implementing the 4M Framework for Acute Care for Elders at Vanderbilt University Hospital

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Introduction: The age-friendly hospital implements an evidence-based “4M” framework (What Matters Most, Medication reconciliation, Mentation and Mobility) to minimize harm among older adults. Clinical outcomes of patients who receive bundled 4M's care delivery remains a knowledge gap. The objective was to describe 4M's implementation and documentation compliance on an Acute Care for Elders (ACE) Unit at Vanderbilt University Hospital and to determine if the incremental benefit of more M's is associated with reduced 30-day readmissions and discharges to post-acute care facilities.

Methods: This was a quality improvement (QI) initiative for a prospective cohort of patients admitted to a single ACE unit. In April 2019, a multidisciplinary team of providers and patient representatives began implementing the 4Ms on a 22-bed unit within an academic medical center. The team described 4M workflows and measures, and built electronic health record documentation for each M. In March 2021, a goal to reach 90% EMR documentation for each M was set for November 2021. Univariate analyses will characterize the relationship between each M and outcome. Multivariable logistic regression will characterize dose response between the number of M's received and outcomes.

Results: In April/May 2021, the sample (n=94) median age was 79 years (IQR 75-86), 61.7% were female, and 13% were non-white. Average documentation rates included: What matters most 22% (± 11.9); Medication 87% (± 6.9); Mentation 67% (± 10.6), and Mobility 80% (± 17.2). For all patients discharged from the ACE unit (n=174), the median hospital length of stay was 4.7 days (IQR 3-8) and 9 falls occurred. The 30-day readmission rate was 8.8% and 40.4% were discharged to a post-acute care facility.

Conclusions: This early interdisciplinary QI pilot demonstrates the measurable implementation of 4M's care by the geriatric medicine service on an ACE unit at an academic medical center. Data collection is ongoing to evaluate the relationship between 4M's and their impact on clinical outcomes.