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Background

Geriatric hip fracture population, which includes older adults aged 65 years and older admitted to the hospital with an acute hip fracture, represents a vulnerable and high-risk cohort among older adults. Literature shows high one-year mortality (up to 20%) and functional dependence after a hip fracture. We reviewed the outcomes data for this population served by Stanford Health Care over the previous three years and **found a very high rate of discharge to the skilled nursing facilities (80%), and an increasing length of stay (5.6)**. These were attributed to high rates of post-op complications including delirium, impaired mobility, sub-optimal symptom management including pain, constipation, sleep, etc. On further process review, we identified inconsistencies in addressing these areas and variation in care.

Approach

A multi-disciplinary working group was formed to co-design a Geriatric Hip Fracture care pathway that would be initiated at presentation to the emergency room through discharge back to the community. Current-state process mapping was done for the three phases of hospitalization — pre-operative, intra-operative and post-operative — and barriers to consistent and reliable delivery of evidence-based geriatric best practices that affect functional recovery were identified. From that emerged an **opportunity to integrate the Age-Friendly Health Systems 4M Care framework and standardize assessments and interventions and reduce variation in care.** This included prioritizing Mentation, Mobility, Medications for symptom management and What Matters most to the patients and family caregivers.

Though this is an inter-disciplinary effort, individual disciplines were assigned ownership for each practice area as primary "owners": nursing for Mentation, with attention to baseline sensory and cognitive impairment; rehab for Mobility, with attention to daily mobility and functional assessment through the Activity Measure for Post-Acute Care (AMPAC) score, which also predicts discharge disposition from acute-care stay; case management for What Matters to assess priorities for hospital stay and caregiver assessment; clinician team(s) for Medications via order set optimization to avoid polypharmacy and address key symptoms like pain, constipation, etc. **The Geriatric Hip Fracture pathway and order set optimization went live on May 1, 2021.**

Outcomes

The goal of the project was the percentage improvement in patients' AMPAC scores from post-op day (POD) 0 to POD 2, as a marker for the rate of functional recovery and likelihood of discharge to home versus nursing facility. After the implementation of the Geriatric Hip Fracture pathway, the **AMPAC scores improved by 22% between May 1, 2021, and July 31, 2021**, as compared to the pre-implementation cohort. As for process implementation, the **order set utilization has ranged between 80% and 85%**. More data regarding delirium incidence, length of stay and patient experience is pending at the time of this submission. Anecdotally, we noted a greater awareness of cognition, nutrition, polypharmacy and goals of care among nursing and multi-disciplinary staff.

Lessons Learned

Co-designing care pathways with and for a multi-disciplinary team of health professionals and patient-family advisory members requires alignment around shared goals. In this scenario, clearly Mobility was a key goal for a majority of stakeholders. **It required reframing the solution and opportunity as to how attention on other aspects of care like Mentation, Medications for symptom management and avoiding polypharmacy, and What Matters most to patients and families can help achieve our and patients' Mobility goals.** Ultimately, it helped us achieve the overall goal of reduction in length of stay and increased likelihood of discharge to home.

Next Steps

As for ongoing steps, a patient-family caregiver education document is in preparation, namely "What to Expect" during the functional recovery period which will be disseminated in print and via the MyHealth application. As more patients are seen as part of the Geriatric Hip Fracture pathway, in the post implementation period we hope to evaluate the impact on discharge disposition, delirium burden, length of stay and cost of care.

We look forward to understanding the value generated for the health care system, providers and patients.

We hope to build a value-based care dashboard from an Age-Friendly Health Systems (4M care framework) lens that will capture in real time consistency in evidence-based best practice processes and key outcomes. This can potentially then be used as a template for other geriatric surgery patients throughout the system.

We hope that this initiative and learnings will act as a template for improving the care of other geriatric surgery patients.