MARTIN HEALTH SYSTEM

CASE STUDY

Comprehensive Quality Improvement Efforts for Unassisted Fall Reduction

Susan Clark, DNP, RN, CNML, CNL

INTRODUCTION

Unassisted falls are considered "never events" and are associated with increased morbidity, extended length of stay, and excess costs.[1-3] Effective fall prevention requires a collaborative approach with ongoing evidence-based fall prevention interventions and communication. An interprofessional quality improvement (QI) initiative was implemented to reduce unassisted falls utilizing best practices in process improvement methodology.

METHODS

Clinical setting: This QI initiative took place on two inpatient acuity adjusted units (60 beds total).

QI initiative: Although hospital was well below national benchmark for patient falls per 1000 patient days, implemented interventions to further reduce unassisted falls.

Metrics: % Improvement over fiscal year (October through September)

Interventions:

- Formation of a Falls Task Force involving focus areas (e.g., transporters, interdepartmental transfers) that provide direct patient care.
- Root cause analysis conducted on all falls from prior year.
- Findings and experiments taken to leadership huddles to ensure strong support from all clinical departments.
- Gap analysis conducted on fall prevention interventions.
- Policy change recommendations drafted.
- Education* tailored to address results of root cause analysis and gap analysis and provided to all different divisions (e.g., emergency department, post-anesthesia care, ancillary services).
- Re-education on standard fall prevention interventions and appropriate use of Hendrich II.
- Re-education* on appropriate utilization of bed technology** which is standardized throughout hospital ("zero bed" before patient placed into it to ensure appropriate sensing; "Go Green" function; laminated bed worksheet at head of bed).
- Planned for staff re-education on all topics every 6 months.
- Implemented electronic fall prevention audit tool to monitor compliance with fall prevention (ensured staff were on modified duty to assist

*Stryker Medical clinical support team was an active partner in this QI initiative.
S3® Med/Surg Bed configured to include Chaperone® Bed Exit with Zone Control® **Bed Exit Technology and iBed® Awareness Smart Bed Monitoring Systems (Stryker Corporation, Kalamazoo, MI).

Mkt Lit-1535 09 DEC 2017 Rev A.3

METHODS *continued*

with audits); leadership rounds conducted to provide real-time coaching and follow up if outside compliance.

- Implemented patient/family education with brochures and discussions (education on fall precautions) – now part of EPIC EMR to ensure compliance.

Timeline: Interventions began in August 2016 with formation of the Task Force. Education was initiated 10/01/16.

Initiated Key Performance Indicators (KPI) for falls: Set up Pareto charts on huddle boards to ensure staff had visibility to how each unit was improving on a daily basis.

Incorporated QI Initiative into Value Stream: Fall prevention was incorporated into the inpatient value stream. This process maps a patient from the time they receive an admission order to the time they are discharged from the building, to focus on key areas of opportunity that can add value back to the patient (e.g., removal of waste, more effective use of time). Rapid improvement events are scheduled throughout the year, and metrics are reported on an ongoing basis to align with the "true north" goals of the organization.

No Falls Challenges: No Falls Challenges* were implemented by floor and celebrated when hitting benchmarks with pizza and ice cream socials provided by Nutrition Services.

RESULTS

The preliminary results of this QI initiative have resulted in a 69% reduction 8 months into a one year intervention. If we continue the current trend, we will achieve a 50% reduction in unassisted falls after one year of interventions. If the current trend continues, the estimated cost avoidance is estimated to reach approximately $700,000. The preliminary results are reported below.

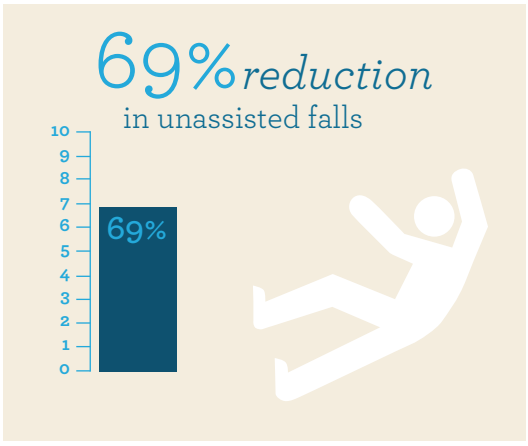

Figure 1. Preliminary percent reduction in unassisted falls

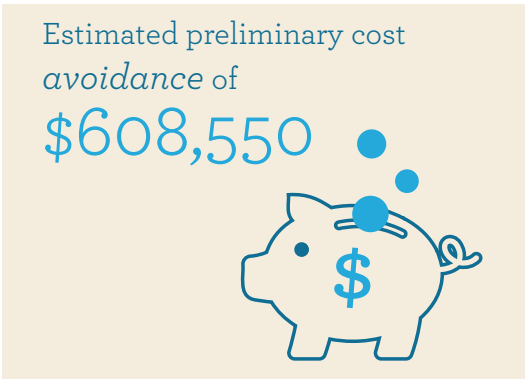

Figure 2. Estimated cost avoidance based on preliminary results

Cost avoidance based on published cost of falls of $12,171 in Hoffman GJ, Hays RD, Shapiro MF, Wallace SP, Ettner SL. Claims-based Identification Methods and the Cost of Fall-related Injuries Among US Older Adults. Med Care. 2016 Jul;54(7):664-71.

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CLINICAL IMPLICATIONS

- Leadership and engagement of direct reports in doing the audits and keeping staff engaged and excited ensured sustainability.
- Visible open lines of communication ensured staff buy in.

REFERENCES

1. Moe K, Brockopp D, McCowan D, Merritt S, Hall B. Major Predictors of Inpatient Falls: A Multisite Study. J Nurs Adm. 2015;45(10):498-502.
2. Krauss MJ, Nguyen SL, Dunagan WC, et al. Circumstances of patient falls and injuries in 9 hospitals in a midwestern healthcare system. Infect Control Hosp Epidemiol. 2007;28(5):544-50.
3. Hoffman GJ, Hays RD, Shapiro MF, Wallace SP, Ettner SL. Claims-based Identification Methods and the Cost of Fall-related Injuries Among US Older Adults. Med Care. 2016 Jul;54(7):664-71.

This case history was developed by MedBio Publications LLC, which was in turn funded by Stryker Corporation.
The authors maintained total editorial control over the content of this document.