

Harnessing the Multidisciplinary Team & Available Technology to Reduce Patient Falls on a Telemetry Unit

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BACKGROUND

- Falls are the most frequently reported adverse event in the adult inpatient setting with up to 1 million occurring each year in the US.
- A 20-bed general telemetry unit in a large, urban, academic medical center aims to exceed the National Database of Nursing Quality Indicators (NDNQI) benchmark for fall rates.
- The unit has an active Comprehensive Unit-based Safety Program (CUSP).
- The staff identified patient falls as the next way a patient could be harmed (Staff Safety Assessment).

OBJECTIVES

- Review 15 months of falls and identify key contributing factors to falls on this telemetry unit.
- Use the Learning from Defects Tool and Translating Evidence into Practice (TRIP) to develop interventions that will mitigate the contributing factors.
- Reduce falls on this general telemetry unit.

METHODS

Objective 1:

- In July 2009, we reviewed all falls on the unit from 4/1/2008 to 6/30/2009 to identify key contributing factors.
- Falls were defined as an "unplanned descent to the floor, with or without injury to the patient."
- Data were extracted from the Patient Safety Net (PSN) reporting system where, by policy, all falls are reported.

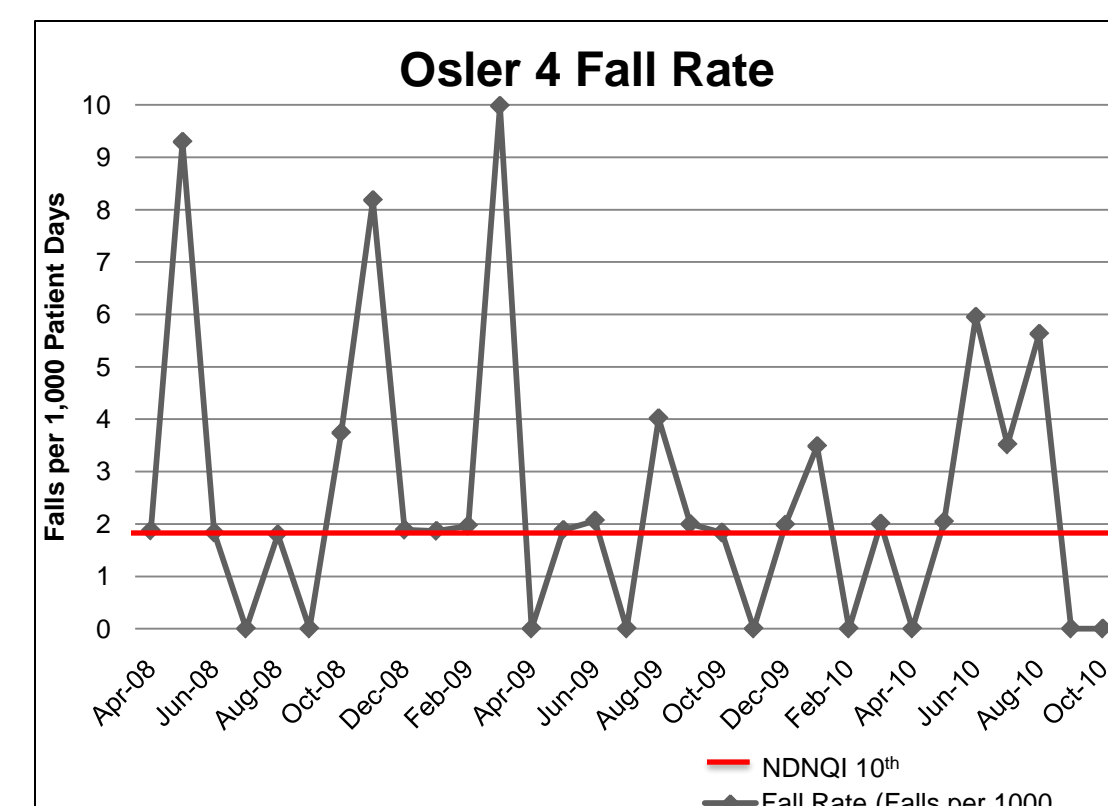
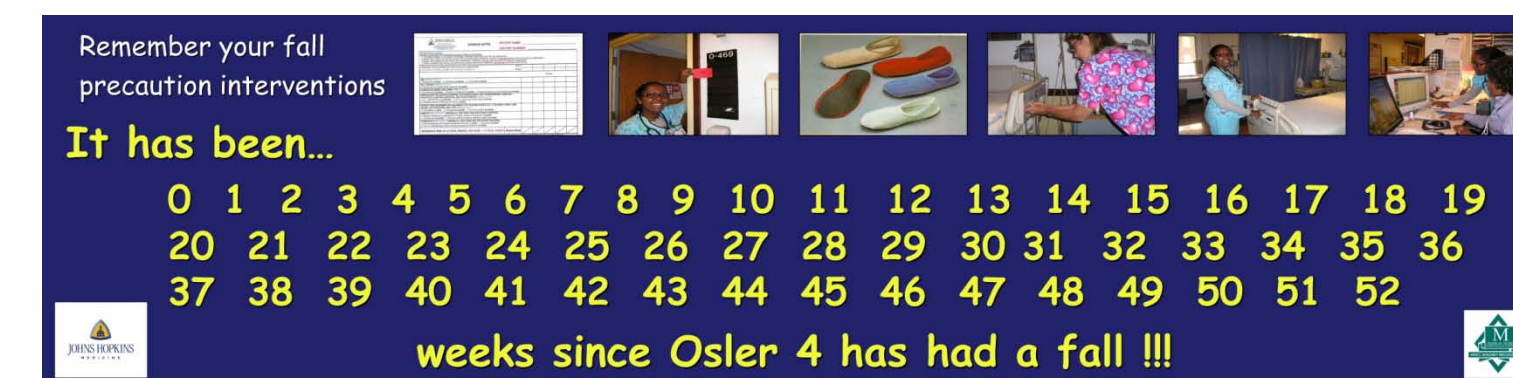
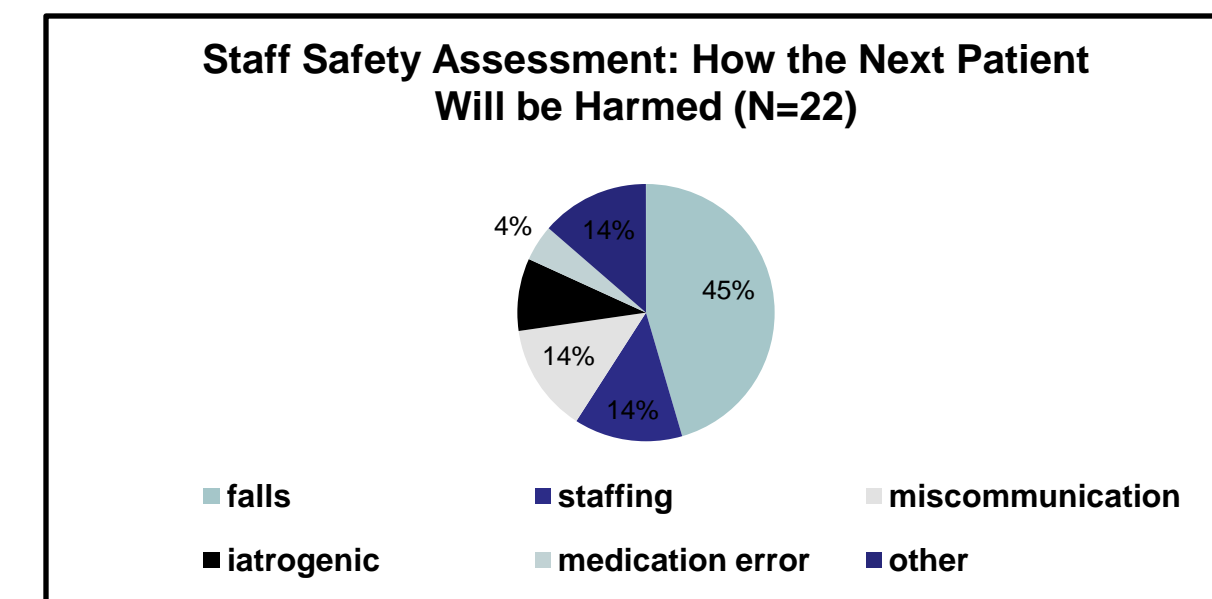
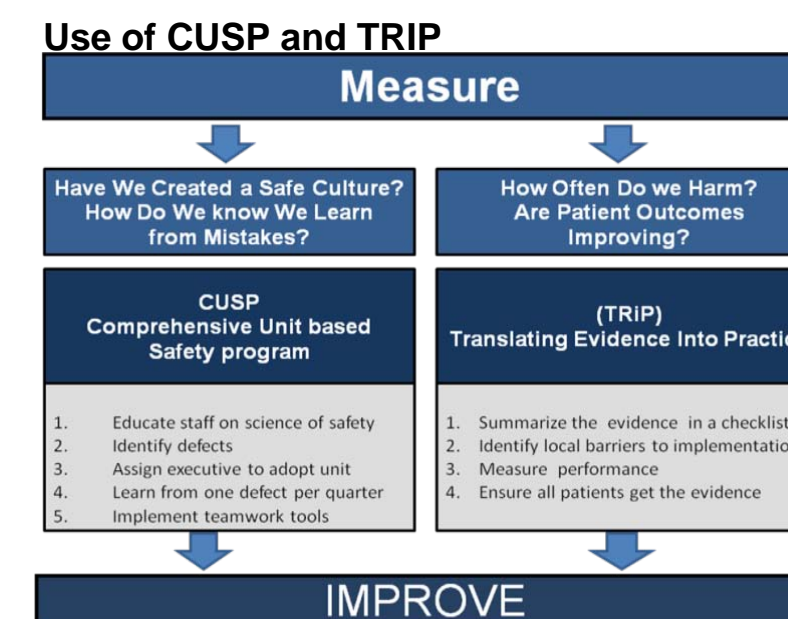
METHODS

- Key Contributing Factors Identified:
 - 91% (21/23) of falls occurred within 1 hour of change of shift, at night, or on a weekend.
 - Un-used bed alarms for high fall risk patients accounted for 39% (9/23) of falls.
- Objective 2:
 - The Learning from Defects tool was utilized to identify **system factors** underlying the key contributing factors.
 - System Factors Identified:
 - Team factor: Lack of adequate communication with ancillary staff during change of shift, nights, and weekends regarding high fall risk patients
 - Caregiver factor: Nursing distractions and interruptions leading to nursing staff not engaging the bed alarm for high fall risk patients
 - Interventions based on System Factors:
 - Add a high fall risk column to the assignment sheet to communicate this information to ancillary staff
 - Every 4 hours the Clerical Associate* will check the Hill-Rom system to ensure the bed alarm is on for every high fall risk patient.

Objective 3:

- Fall data were extracted from PSN and patient-days data were extracted from an administrative data base.
- Baseline period was from 4/1/2008 to 6/30/2009
- Post-intervention period was from 11/1/2009 to 10/31/2010
- We used Poisson regression to regress the fall rate on time period (post-intervention vs. baseline) and obtained an incidence rate ratio and Fisher's exact test to compare the proportion of falls related to bed alarms pre and post intervention.

RESULTS

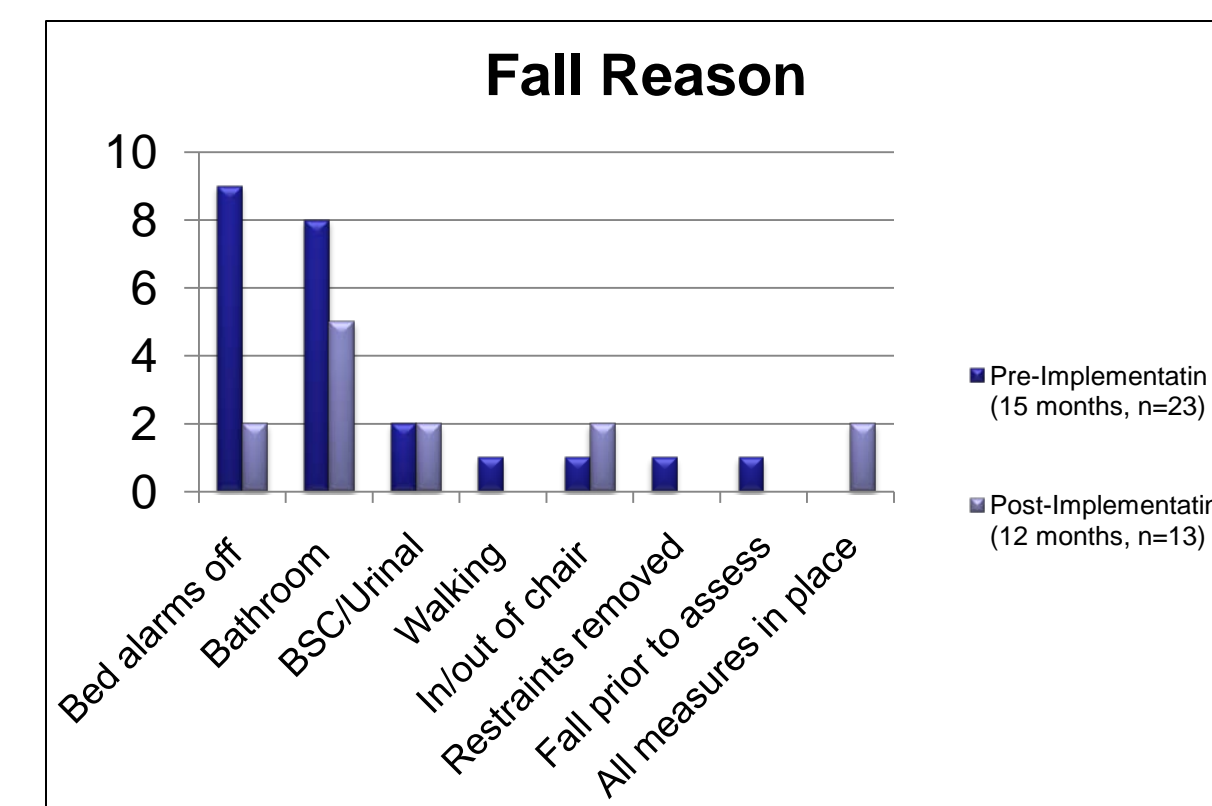


Baseline Fall Rate
2.92 falls/1000 pt-days

Incidence Rate Ratio
0.72 (P value = 0.35)

Post-Intervention Fall Rate
2.10 falls/1000 pt-days

Relative Risk Reduction
28%



Fisher's Exact Test
P value = 0.13

CONCLUSIONS

- A multidisciplinary team (Clerical Associates and Nurses) worked together to reduce falls on an inpatient telemetry unit.
- Utilizing technology to provide an independent double-check for the bed alarm status of high fall risk patients every 4 hours was a low-burden, low-cost intervention to reduce falls.

STRENGTHS

- Clerical associates reported this intervention took approximately 3 minutes every 4 hours and was easily incorporated into their workflow.
- Adding the high fall risk column to the patient assignment sheet standardized communication between all members of the multidisciplinary team.

LIMITATIONS

- We did not measure compliance with the 4 hour double-check in the Hill-Rom system to ensure the intervention was being completed.
- The pre-post study design could not account for factors other than the intervention that may have decreased our fall rate

IMPLICATIONS

- Utilizing readily available tools including CUSP and the TRIP model can allow unit-based teams to substantially improve clinical care.
- This CUSP team will next investigate ways to reduce falls with patients that are toileting in the bathroom.