Johns Hopkins Hospital: CVSICU Fall Prevention EBP Project

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1 Background

Patient falls are clinically significant as they result in extended lengths of stay and increased hospital costs. Because patients are typically not admitted to the ICU directly because of falls, attention is naturally directed elsewhere. Preventing falls among patients in the hospital may require a multifaceted approach (Butcher, 2013).

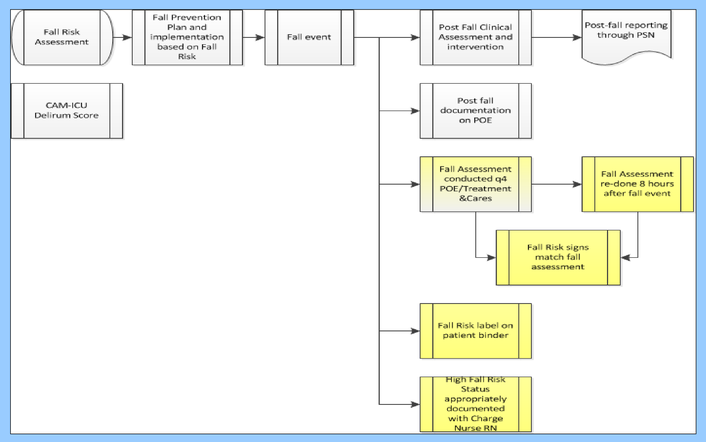
Since moving to a new location in April 2012, the CVSICU has experienced an increase in fall rates. Prior to moving, 75% of falls were witnessed compared to only 11% witnessed after moving into the new JHH Zayed Tower (Figure 2). The fall rate was below the NDNQI benchmark prior to moving and above benchmark after moving. Patient census, nurse staffing, and bed alarm technology have not changed. Some changes include: The unit now uses clinical technicians. Room/Unit layout has changed to all private rooms and square footage has increased which has impacted staff workflow. New alarm/alert technology introduced.

Baseline data shows fall rates exceeding the NDNQI benchmark (1.04 patient falls/1,000 hospital days) in FY13 Q1,2,4 and FY14 Q1 (Figure 1). Among 11 patient falls occurring between 7/1/12 and 9/30/13, only 50% of nurses completed a fall event note, 9.1% completed a post-fall reassessment note 8-24 hours post fall, 9.1% completed CAM-ICU score pre and post fall, and patient/family fall prevention education was not completed for any falls (Figure 3).

Purpose:
Short-term Goals: Decrease the quarterly fall rate in the CVSICU by 20%. Increase the percentage of "witnessed" falls to ≥75% of quarterly falls
Long-range goal: Attain and maintain fall rates below National Benchmark

Control:
RASS/CAM ICU Audit – beginning June 2014
Rounding check for compliance – June 2014
Post Fall Review – Beginning Mar 2014 and on-going
Fall Documentation – Quarterly perform 5 Random POE check (Oct 2014)

Process Map/Value Stream Map (VSM)



2 Methods

Key Metric(s):
Outcome Measures:
- Quarterly Falls and Fall with Injury Rate
- # of falls that are witnessed

Process Measures:
- Compliance with fall process documentation
- Compliance with RASS/CAM-ICU Delirium assessment

Interventions/Next Steps	Responsible	Date
Establish PICO question	Sharon	10/9/2013
Review of EBP Articles	Members	10/9-11/14/2013
Review of possible bundled set of interventions	Team	10/30/2013
Fall data review: Nurse/patient ratio; fall types	Sharon, Carla	11/4/2013
Review Bundled set of intervention	Team	11/15/2013
Rating/Grading Literature Search Article	Team	11/21/2013
Finalize bundled set of interventions	Team	12/10/2013
Work on tools for education and audit tools	Team	1/14/2014-2/06/2014
Finalize education and audit tools	Team	2/6/2014- 3/1/2014
1:1 Education on rounding; use of CVSISCU Nurse Assignment Sheet	Sharon/Ian	February 24, 2014- March 2014
RASS/CAM ICU Poster/Pocket Cards	Sharon/Ian	March 3, 2014-April 21, 2014
Rounding Poster	CVSICU Staff	April 21, 2014-May 5, 2014
Fall Note Documentation Poster, Identification of high fall risk pts in morning multidisciplinary team meeting	Sharon/Ian	May 5, 2014-June
Implement Purposeful Rounding delayed due to massive change in support staff	Sharon/Emily/ Emmalee	Proposed roll out date was June 2014, revised to Nov-Dec 2014

Measure: Baseline Process

Figure 1. CVSICU Quarterly Fall Rate at JHH

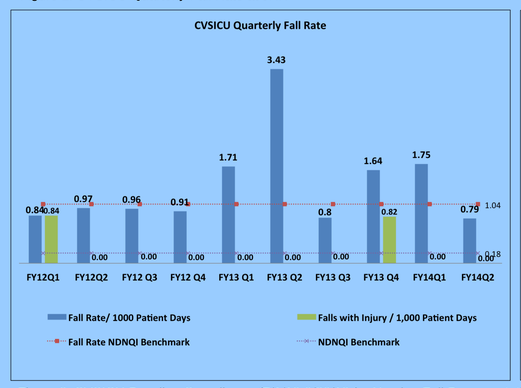


Figure 2. CVSICU Unwitnessed Falls between FY12 Q4 and FY14 Q2

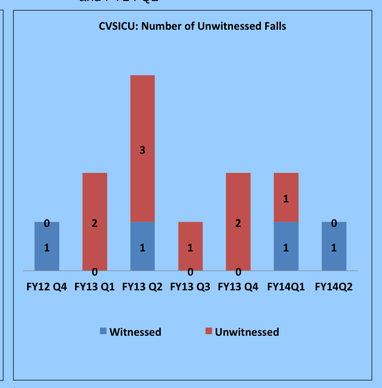
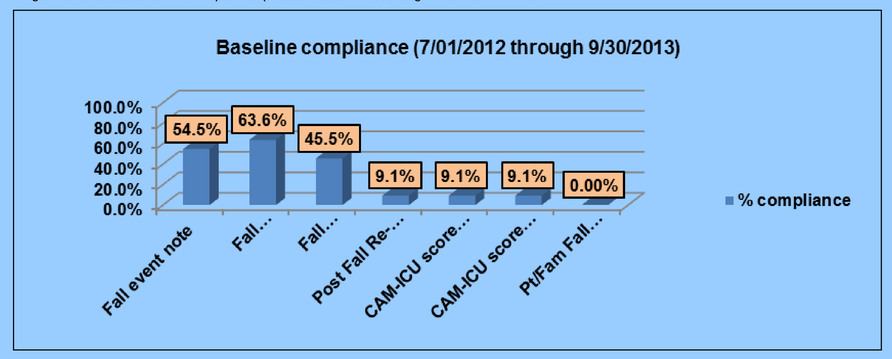
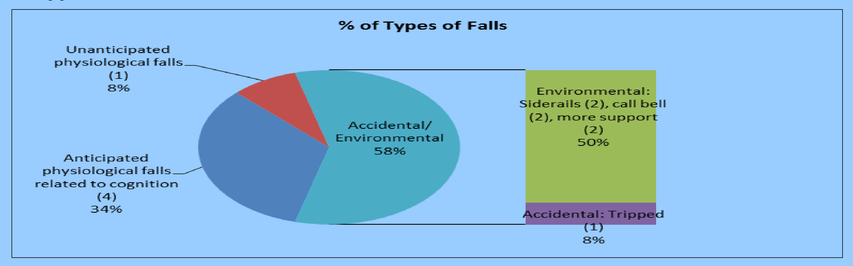


Figure 3. CVSICU Baseline Compliance (7/1/12-9/30/13 for Nursing Fall Documentation

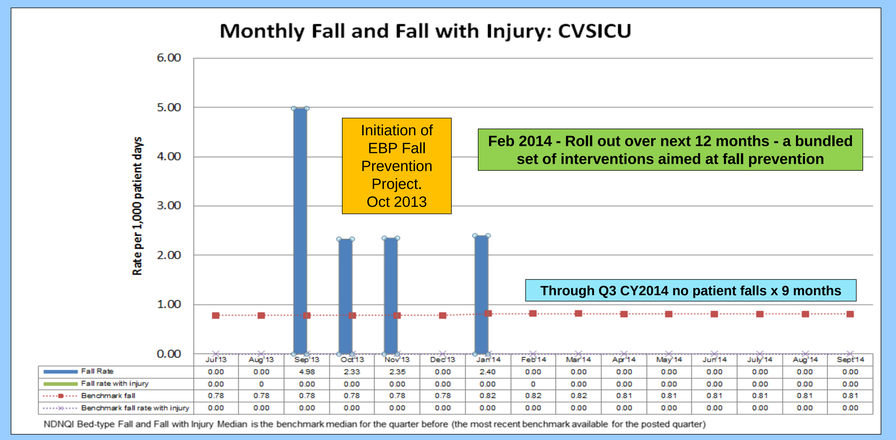


Analysis: Additional data/findings/root causes/graphs

There were a total of 12 falls from July 2012-December 2013 (FY13Q1-FY14Q2).
The types of falls are as follows:



3 Results



4 Conclusions

- A multidisciplinary EBP project team reached it's goal to reduce falls in an ICU setting. Implementation of a bundled-set of interventions, derived from a thorough literature search of best practice, resulted in a significant decrease in the number of patient falls (with and without injury) on a cardiovascular surgical ICU.
- A unit experiencing high patient falls, with a similar patient population, may benefit by implementing this same bundled-set of interventions.

5 Future Directions

- After implementing the bundled-set of interventions, no falls have occurred. Plan is to share results with staff, provide ongoing staff education on fall prevention, continue to benchmark best practice, continue intermittent audits of nurse documentation related to falls, and RASS-CAM ICU scoring to sustain:
  - ✓ Reduction in Patient Falls (Witnessed and Unwitnessed)
  - ✓ Compliance with Nurse Fall Documentation
  - ✓ Compliance with Nurse RASS/CAM-ICU Delirium Assessment
  - ✓ Study the relationship between patient falls and nurse documentation

6 References

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