

Unassisted Fall and Injury Rates Before and After Telesitter Implementation

Author: Mark Alger, MSN Candidate and Ron Langlotz, DNP, RN

1 Background

Inpatient falls in the hospital are a significant patient safety concern that have the potential to increase the hospital stay up to 6 days (Bouldin, 2013). Falls can lead to poor health outcomes due to patients experiencing head trauma, fractures, and lacerations (Bouldin, 2013). Current evidence based practices have been incorporated into the hospital setting to combat this such as ensuring bed rails and alarms are used, calculating the fall risk with a numeric scale upon admission, and utilizing hospital sitters to watch patients. Despite these interventions, fall rates in hospitals continue to be an issue for patient safety (Ganz, 2018).

2 Objectives

In adult patients who are at risk for experiencing falls, will the use of Telesitters reduce fall rates compared to non-video monitoring?

3 Methods

Methods

In order to address this research question, Johns Hopkins Department of Medicine partnered with a third party organization called Avasure, which provided an AvaSys Telesitter platform for remote video monitoring of patients. The project was implemented on four 23-bed general medicine pilot units within the hospital including Nelson 3, 6, 7, and 8. Patients needed to meet all eligibility criteria before telesitters were used. Nurses working on these pilot units were asked to identify patients who met eligibility criteria to have a sitter, and then forwarded this information to the shift coordinator who would facilitate this directive. The telesitter program was capable of monitoring up to 12 patients at a time, where “remote monitors” were able to provide interventions as appropriate based on patient behaviors. Monitors had the ability to carefully observe patients who started to get out of bed, pull lines, and attempt to “re-direct” if possible through voice commands. They also were able to escalate issues to the nurse, if applicable, to prevent an impending fall.

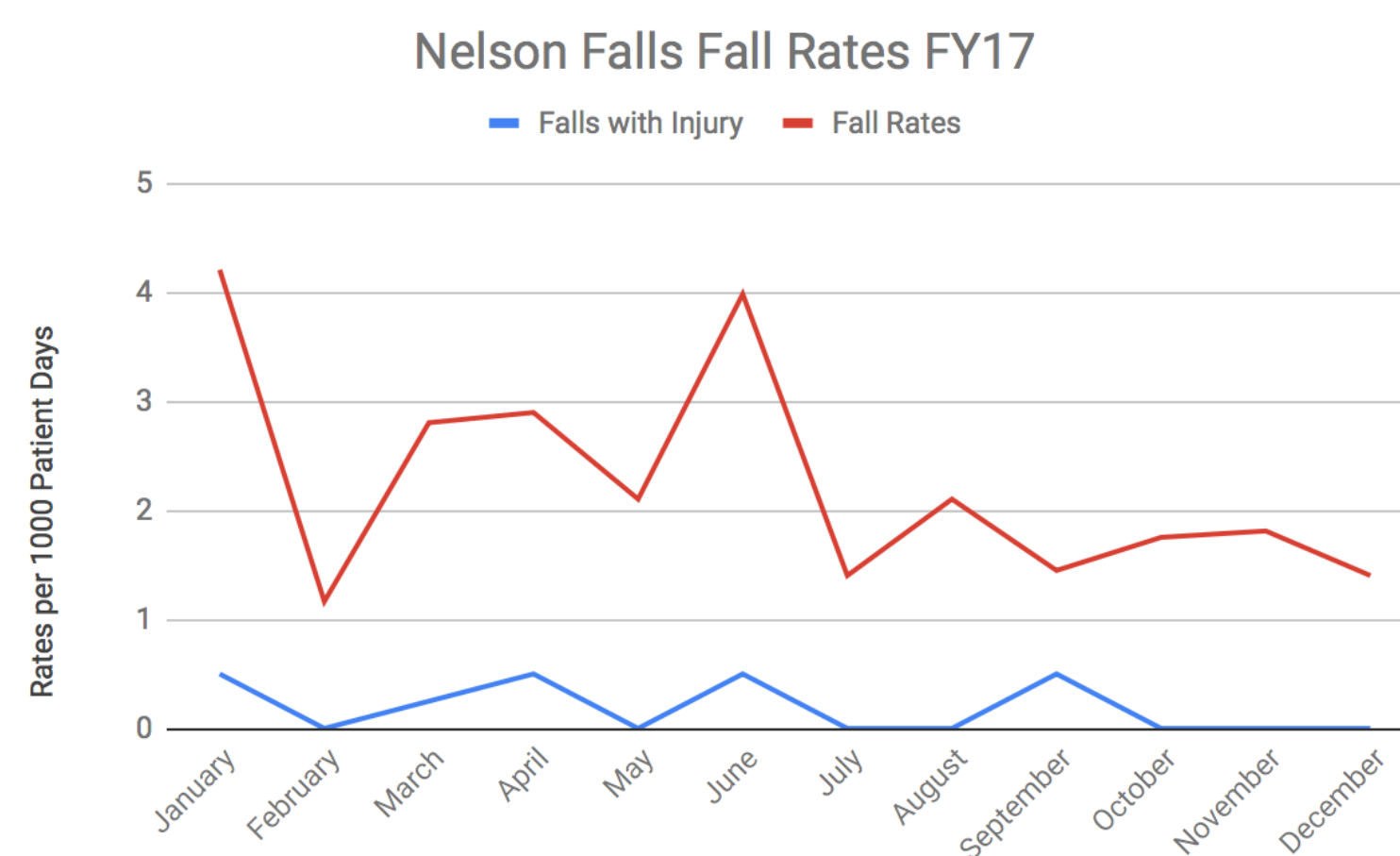
Inclusion Criteria:

Patients needed to have either delirium, dementia, alcohol withdrawal, restlessness, agitation, or shown to benefit from increase in fall preventions.

Exclusion Criteria:

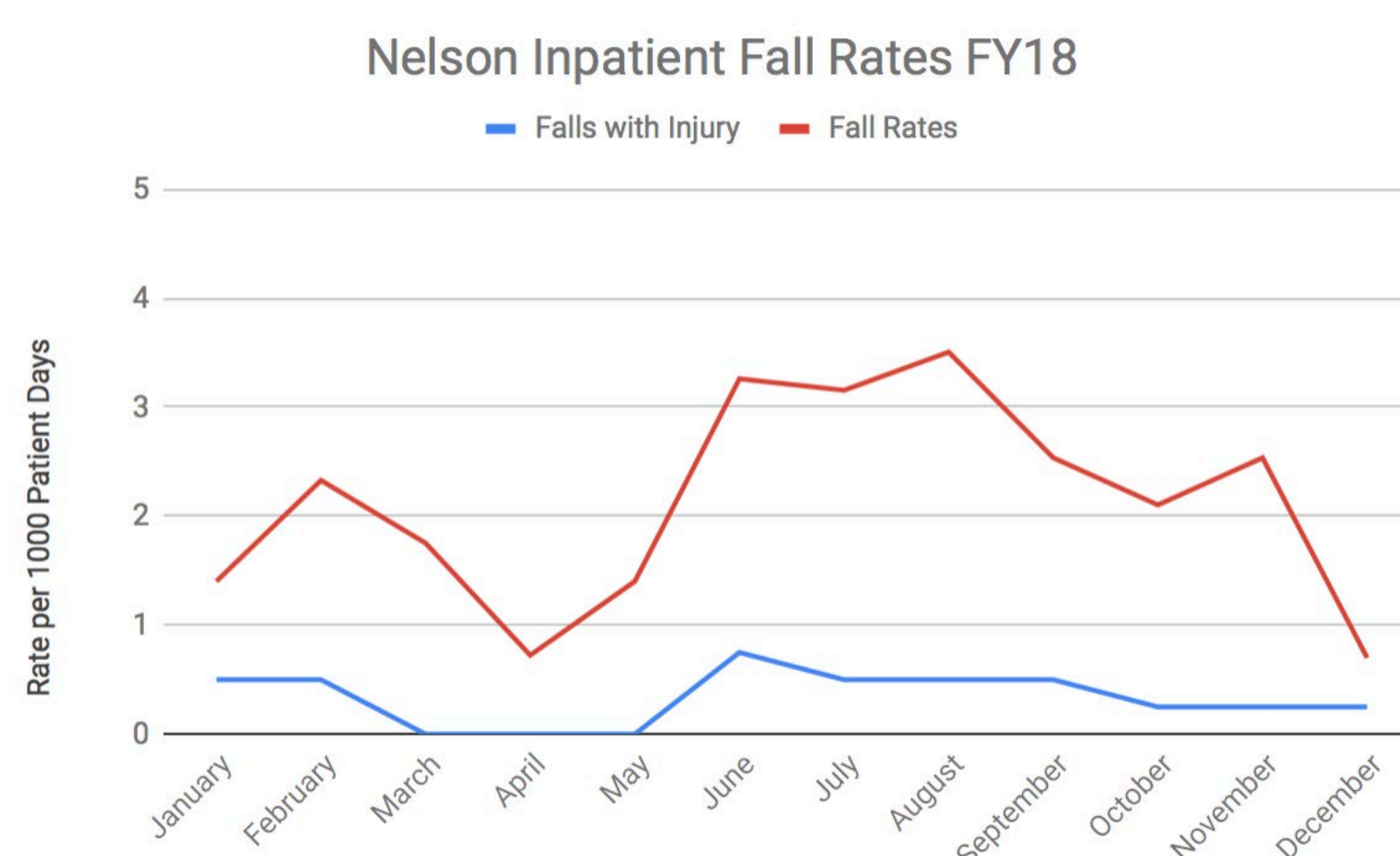
Suicidal patients, patients who cannot be

4 Results



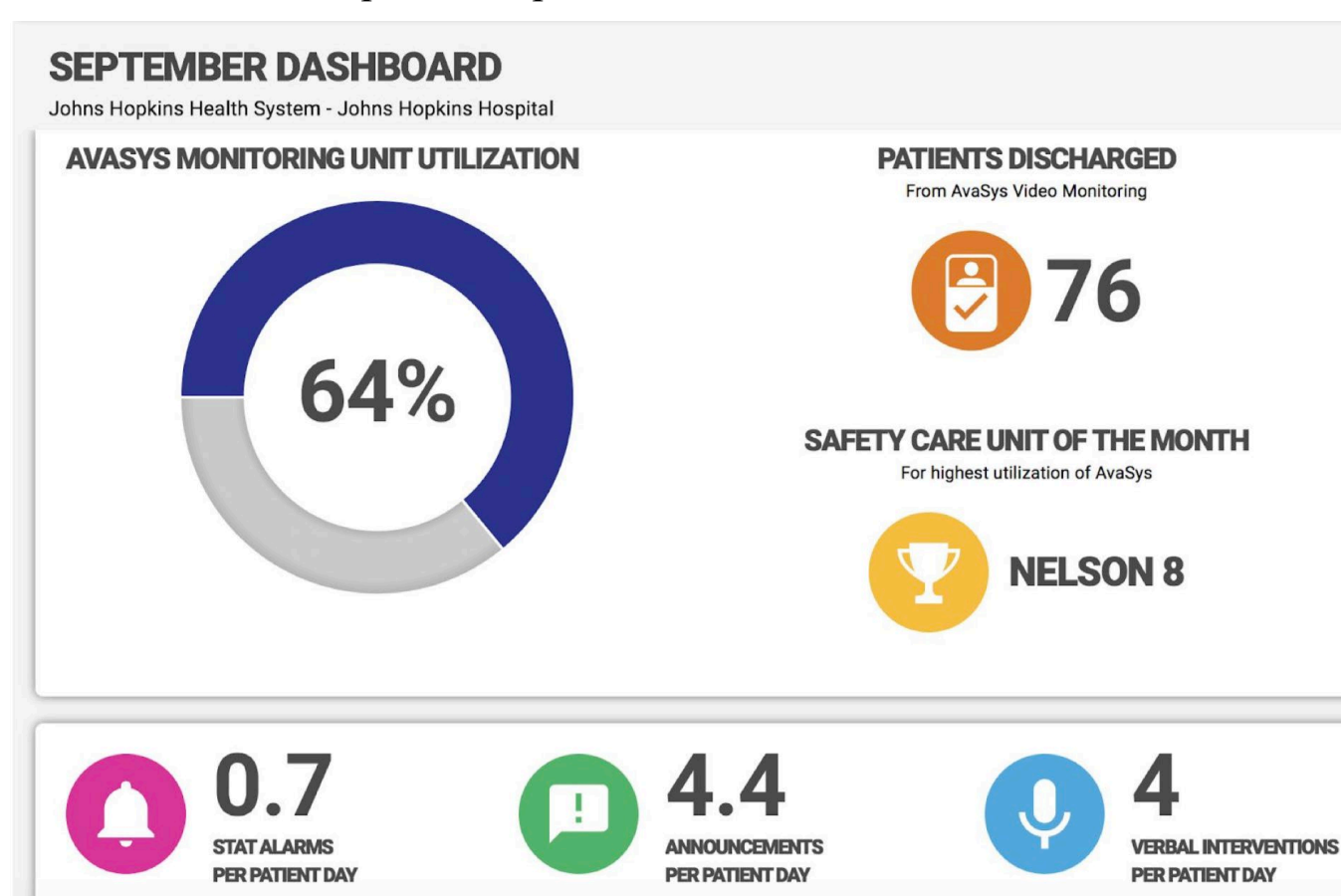
Data for falls and injuries were captured from the General Medicine Nelson Units 3, 6, 7, and 8 from January '17 to December '17. The graph intends to show the baseline fall and injures average rates for these units. The average fall rate was 2.26 and injury rate was 0.19.

Source: Johns Hopkins Hospital



Data for falls and injuries were captured from the General Medicine Nelson Units 3, 6, 7, and 8 from January '18 to December '18. The graph intends to show the effect of the telesitter intervention in a subset of patients. The P value of (0.05) was used to show statistical significance, however, it should be noted the pilot program went live in June 2018. The average fall rate was 2.11 and average injury rate was 0.33.

Source: Johns Hopkins Hospital



This dashboard shows the utilization data captured from the AvaSys telesitters for the month of September 2018.

Source: Johns Hopkins Hospital

5 Conclusions

The use of telesitters showed a statistically significant improvement in fall rates compared to FY17 and FY18 data with a overall 7% reduction. However, there was no significance in fall injury rates. Since inpatient falls continue to be a leading cause of adverse events, hospitals may benefit from incorporating the the use of telesitters into their EBP plans, in conjunction with other approved methodologies. Increased surveillance can be a positive direction into reducing fall rates by improving patient outcomes, as well as increasing patient and nursing satisfaction.

6 Future Directions

The implementation of the AvaSys Telesitters has decreased falls rates due to increase video monitoring. A secondary outcome was achieved since more patients were able to be monitored compared to traditional supervision with ancillary staff. The success of the pilot program within the Nelson units will lay the foundation for widespread use of Telesitters throughout the department of medicine at Johns Hopkins Hospital. However, more data is required to verify the reduction in fall and injury rates, and determine if there are financial benefits with continued utilization for FY18 and FY19.

7 References

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