Engaging patients and caregivers in their safety through the use of a visual cue to decrease patient falls: A pilot study

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Introduction

Falls are a leading cause of injury-related morbidity and mortality among older adults

- Numerous fall prevention interventions exist within hospital systems
- Falls continue to occur at a rate of 3 to 5 per 1,000 patient days

Background and Significance

Inpatient falls are a potentially preventable hospital-acquired condition that leads to negative health consequences and increased costs

- 1.9% to 3% of all hospitalized patients in the U.S. experience a fall
- Up to 50% of inpatient falls result in injury
- Falls are the most common cause of traumatic brain injury and hip fractures

Centers for Medicare and Medicaid Services will not reimburse for the cost of care related to an inpatient fall

- Increase cost of hospitalization by $13,300
- Extend length of stay by 6 days

Research demonstrates that fall prevention programs should engage frontline staff and patients, but current practices lack key aspects:

- Do not include the patient and caregiver in the fall prevention care plan
- Are not tailored to patient-specific risk factors
- Do not make patient aware of their fall risk

One neuroscience unit at an academic medical center has historically experienced a high number of falls

- Unique risk factors, such as cognitive deficits, impaired memory, and visual impairments

Objective

To create and evaluate an innovative approach to fall prevention on a neuroscience unit:

- Use a visual reminder
- Engage patients by tailoring it to their specific needs

Methodology

Quality improvement project to assess the impact of a visual cue to prevent falls on a pilot unit

- 29-bed adult inpatient neuroscience unit
- Sign placed at each patient's bedside
- Large font with a clear message tailored to patients with neurological disorders
- Data collected on falls and compliance with staff utilization of the sign
- Weekly audits completed using data collection tool

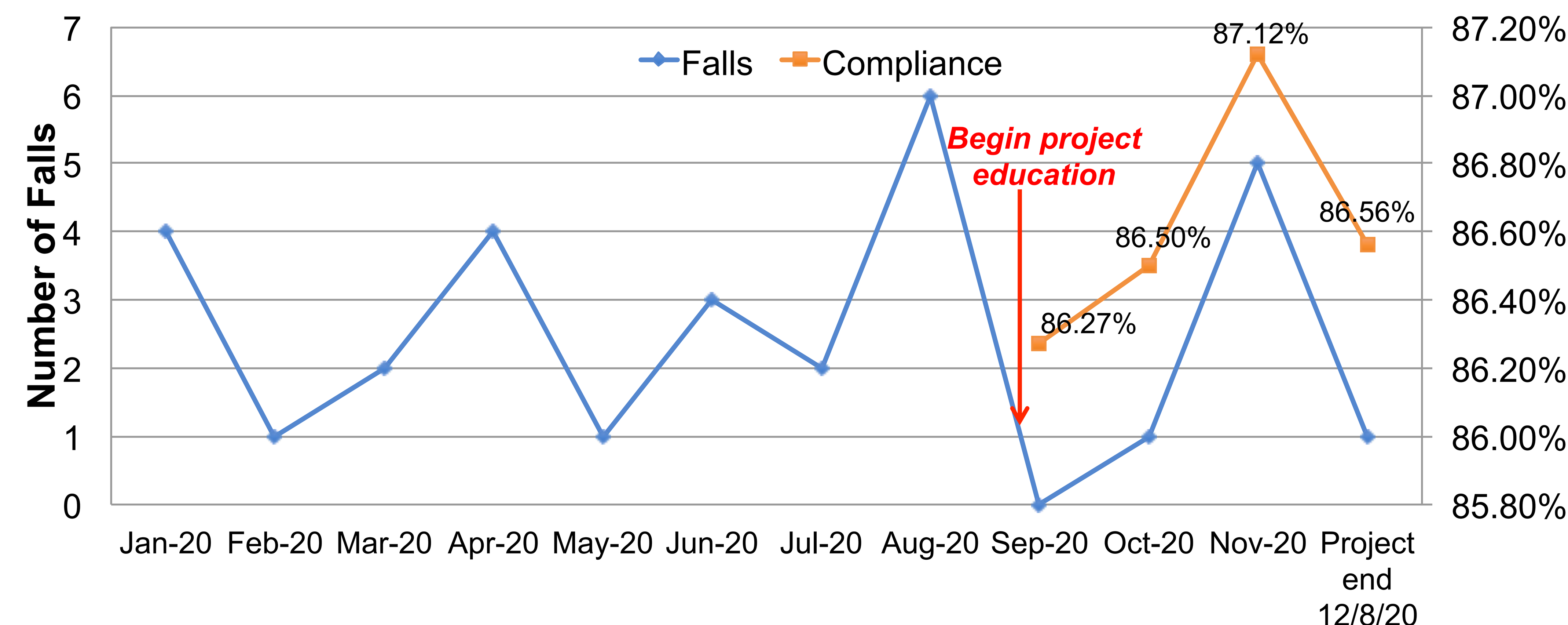
Carried out in 2 phases:

1. **Educational Phase:** 3 week period of staff education
2. **Implementation Phase:** 12 week period with bedside sign in place while collecting data on outcomes

Please use the call bell and wait for assistance when you want to get up.

Do not get out of bed until help comes.

Results



Compliance outcomes

- Total of 320 individual audits completed
- 86.56% overall staff compliance with placement of signs

Falls outcomes

- 3 month pre-implementation period (Jun-Aug 2020): 11 falls
- 3 month post-implementation period (Sept-Dec 8, 2020): 7 falls
- Same period in 2019: 8 falls
- Decrease in the number of falls post-implementation compared to pre-implementation
- A Mann-Whitney test completed to evaluate impact of the bedside sign post implementation when compared to 12 week pre-intervention period
- There was no statistically significant reduction in number of falls on the pilot unit after the implementation of a visual cue, $U = 52$, $z = -1.17$, $p = .241$, $\alpha = .05$

Discussion and Implications

Overall, number of falls decreased in 12-week period post-implementation compared to 12-week pre-intervention period

- First 6 weeks: 1 fall
- Last 6 weeks: 6 falls, 1 with minor injury

Positive engagement of staff, patients, and caregivers

- Staff verbalized that they are more cognizant of fall prevention due to sign
- Patients stated that falls are main topic on the unit
- Some family members pointed out sign to patients

Evaluation of non-compliance with signs:

- Multiple broken/chipped signs
- Sign fell on floor
- Bedside table too cluttered
- Sign moved with patient
- Some patients refused
- Did not speak English

Additional projects can further evaluate this concept

- **Main recommendation**: test for longer duration, in multiple languages with option to hang sign on wall
- Consider with other hospital-acquired condition risk reduction behavior
- Low cost for materials with large benefit

Conclusions

- A visual cue is a simple method to increase patient engagement and satisfaction in their plan of care
- Widely accepted and feasible with high compliance
- Observed to increase staff awareness of fall risk reduction and improve overall patient safety

References

Refer to attached sheet

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