

Nurse-Driven Delirium Care Optimizes Outcomes in the Hospitalized Elderly

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Background

Delirium Definition

- **Acute confusional state with decline in cognitive functioning**
- **Fluctuating mental status, inattention, disorganized thinking**
- **Results from multiple factors**
 - Medication side effects
 - Dehydration
 - Acute illness
 - Infection
 - Acute neurologic event (i.e., stroke)

Background

Predictor of Outcome

- **Delirium independent predictor poor outcomes with increased risk for**
 - **Mortality**
 - **Dementia**
 - **Institutionalization**
 - **Length of stay**
 - **Healthcare related costs**
 - **\$164 billion in the U.S** (Inouye et al., 2013)

Background Significance

- **Delirium is most frequent complication in hospitalized elderly**
 - **Up to 50% affected**
 - **40% cases classified as preventable complication** (Inouye et al., 2013)

Background Significance

- **Significant public health relevance**
 - **Delirium ranks top 3 conditions in need of quality care improvement in the elderly (Arora et al., 2007)**
 - **National Quality Measures Clearinghouse of the Agency for Healthcare Research and Quality (AHRQ) states delirium in elderly *quality of care and safety marker***

Background Significance

- **Despite clinical relevance and significant economic impact, less 50% delirium in elderly recognized by clinicians** (Kales et al., 2003)
- **Bedside nurses fail to recognize in 30% cases even when using validated delirium detection instrument** (Inouye et al., 2001; Rice et al., 2011)

Background

Risk Factors

- **Age is primary variable associated with delirium**
 - **For every year over age 65 increased risk for delirium**
(Huai et al., 2014)
- **Gender data conflicting results** (Elie et al., 1998; Ahmed et al., 2014)
- **Significantly associated** (Huai et al., 2014; Fortini et al., 2013)
 - **Illness severity (APACHE score)**
 - **Increase length of stay**
 - **Co-morbid conditions**
 - **Hypertension**
 - **Cognitive impairment**
 - **Kidney failure**
 - **Diabetes**

Background Risk Factors

- **Physical and chemical restraints** (McCusker et al, 2001)
- **Poly-pharmacy, especially benzodiazepines**
- **Laboratory values (i.e., low albumin)** (Ahmed et al., 2014)
- **Delirium previous hospitalization**
- **Impaired hearing/vision**
- **Limitations with activity** (Moerman et al., 2012)
- **History of falls**

***Risk delirium increases with each predisposing factor**

Background

Delirium Assessment

- **Accurate delirium assessment non-existent in acute (non-critical) care setting by physicians or nurses**
- **Clinicians rely upon neurologic assessment with focus on *orientation* to diagnose delirium**
 - **Lacks sensitivity and specificity in detecting delirium**
- ***Prevention* is most effective strategy to improve outcomes**
- **Routine *cognitive specific* assessment improves early delirium recognition leading to faster more effective interventions** (Inouye et al., 1999)

Background

Delirium Assessment

- **Recognition best accomplished by routine, brief cognitive screening and astute clinical observation** (Inouye et al., 1999)
- **Nurses who spend most time with patients, best suited recognize subtle changes patient's behavior that assist with early detection**
- **Utilizing the bedside nurse as driver-of-change in the hospitalized elderly is unprecedented**
 - **Delirium programs across country utilize specific delirium interprofessional teams with specialized expertise in elder care**
 - **Nursing staff included as ancillary “assistance” to overall program** (Inouye et al., 2013)

- **A brief, evidence-based, delirium specific assessment is conducted on acute-care patients ≥ 70 years every 12-hours by the bedside nurse**
 - **A delirium screening tool was included in the electronic medical record as part of the nursing assessment**
 - **Delirium assessment results positive \rightarrow nurse initiates the Delirium Acute-Care Nursing Interventions Protocol and leads coordination of interprofessional delirium interventions**

Delirium Acute-Care Nursing Interventions

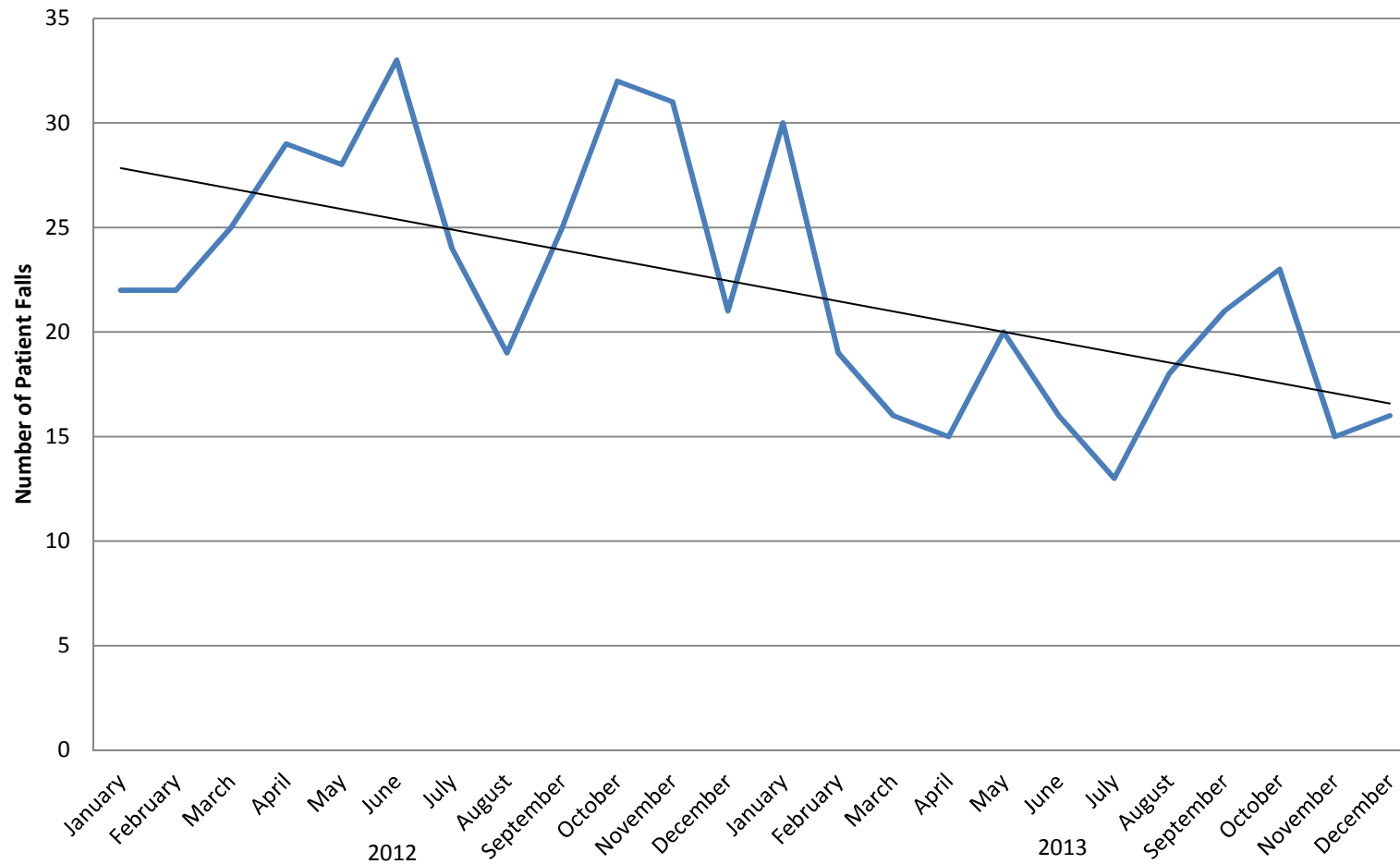
- **Based on the Hospital Elder Life Program**
 - **Cognitive impairment**
 - **Sleep deprivation**
 - **Immobility**
 - **Visual impairment**
 - **Hearing impairment**
 - **Dehydration**

Delirium Acute-Care Nursing Interventions

- **Central to the initiative is *early recognition* of warning signs**
 - **Facilitates timely diagnosis and management**
 - **Targeted interventions with rapid resolution**
- **Nurses as largest, consistent care providers best suited to influence the continuum of delirium care from recognition to resolution**
 - **Active vigilance is the key to success**

Outcomes Falls

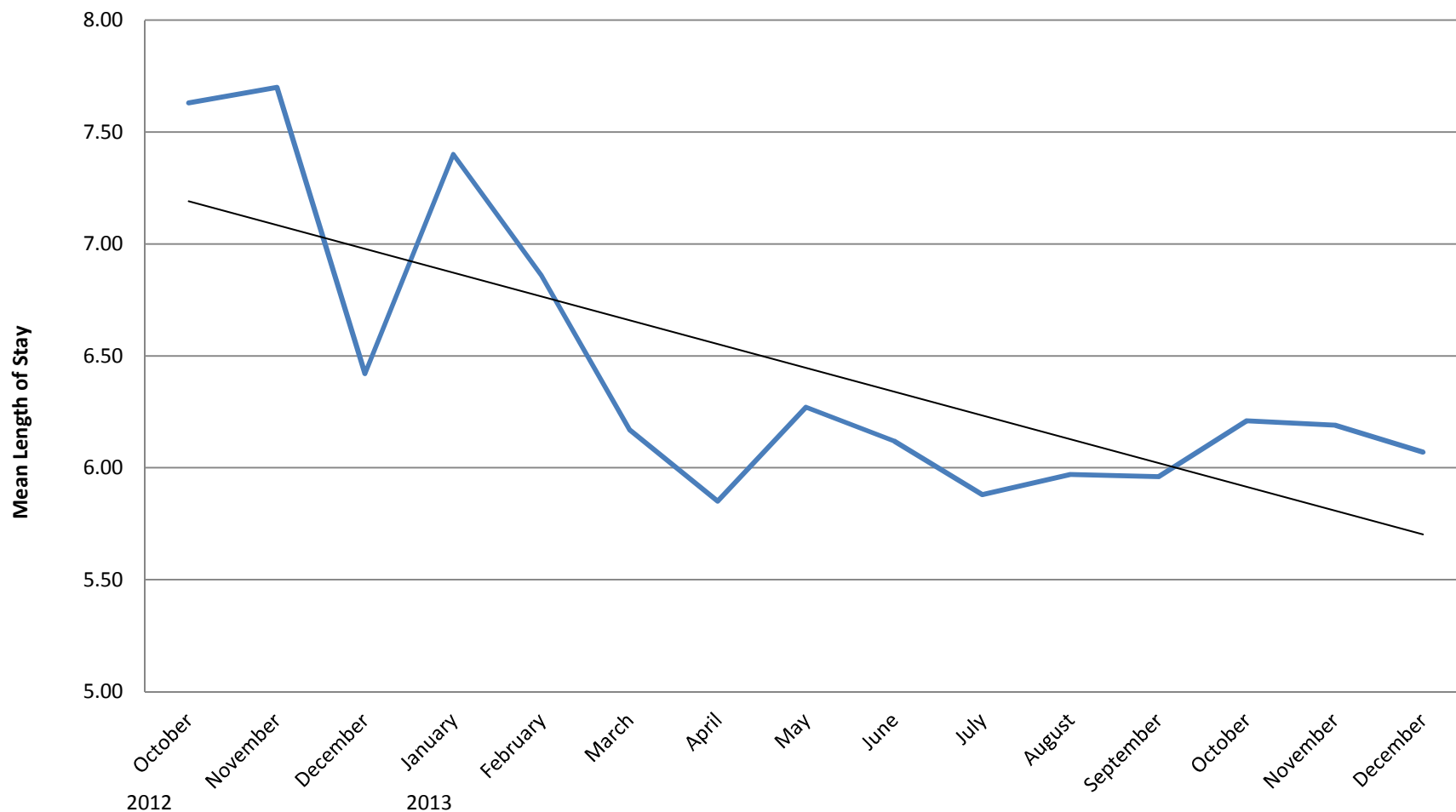
Fall reduction of 28.6% (25.9 to 18.5) in delirium screened patients compared to pre-intervention falls data



Outcomes

Length of Stay

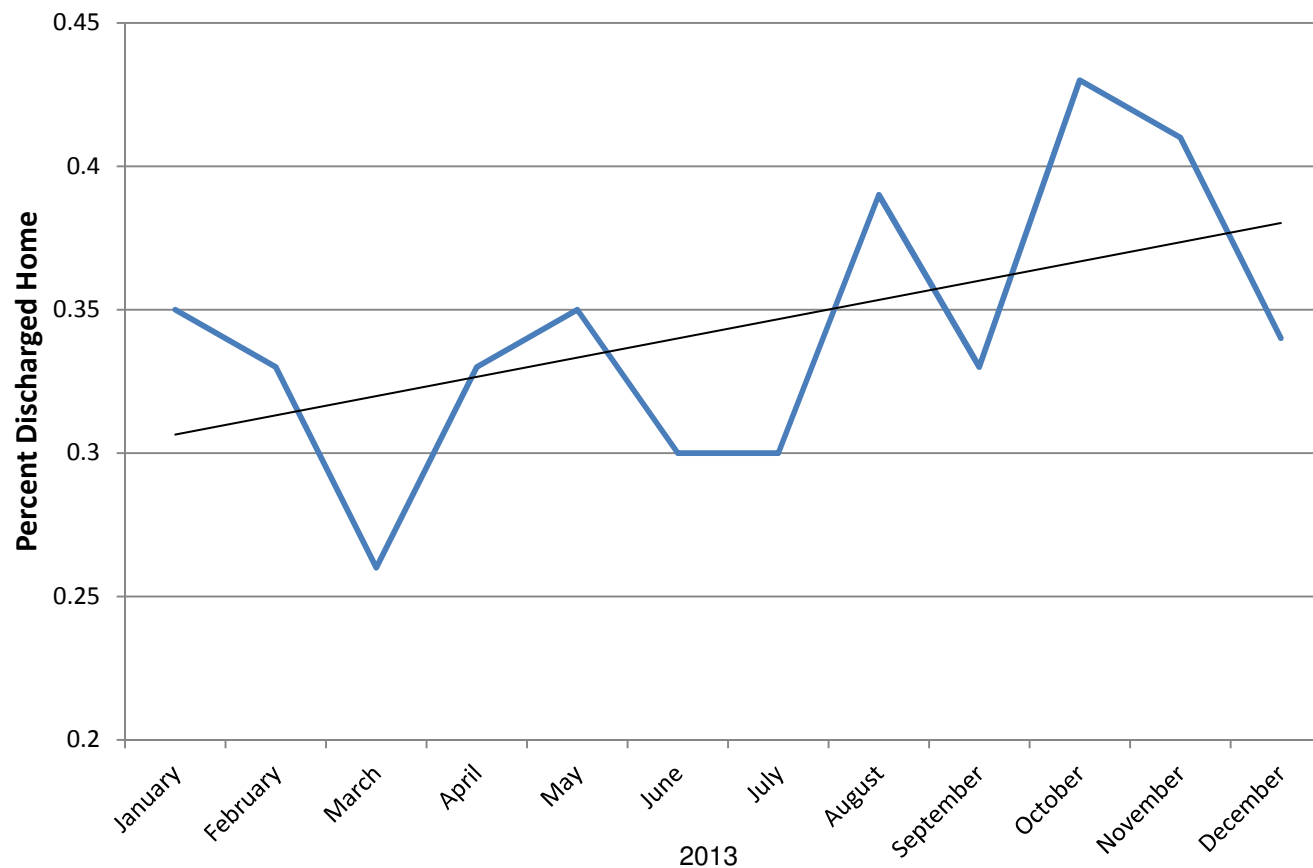
14.5% reduction in the mean length of stay (1.05 days) for positive delirium screened patients



Outcomes

Discharge Location

Steady increase (34% average increase 2013) in number patient's screened delirium positive who were discharged home rather than new institution (i.e., skilled facility)



Conclusions

- **A focus on *active vigilance* for early identification of at-risk delirium patients, significantly affects quality and safety measures**
- **A *proactive approach* to address amendable risk factors and timely, but consistent strategies yields improved outcomes**
- **Our nurse-driven Delirium Initiative has demonstrated that nursing is well positioned to lead and resolve complex patient care issues**

Implications for Practice

- **Nurses can should lead and not following in quality and safe care for patients**
- **By leading initiative to bring innovation and evidence-based practice to the bedside, we are demonstrating the impact of nursing**
- **Institute of Medicine’s directive for nurses to practice to the full extent of their training and to act as a “critical factor in determining the quality of care in hospitals and the nature of patient outcomes” (IOM, 2011, p. 92)**

I don't think there is any other quality so essential to success of any kind as the quality of perseverance. It overcomes almost everything, even nature.

John D. Rockefeller



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