

Purpose

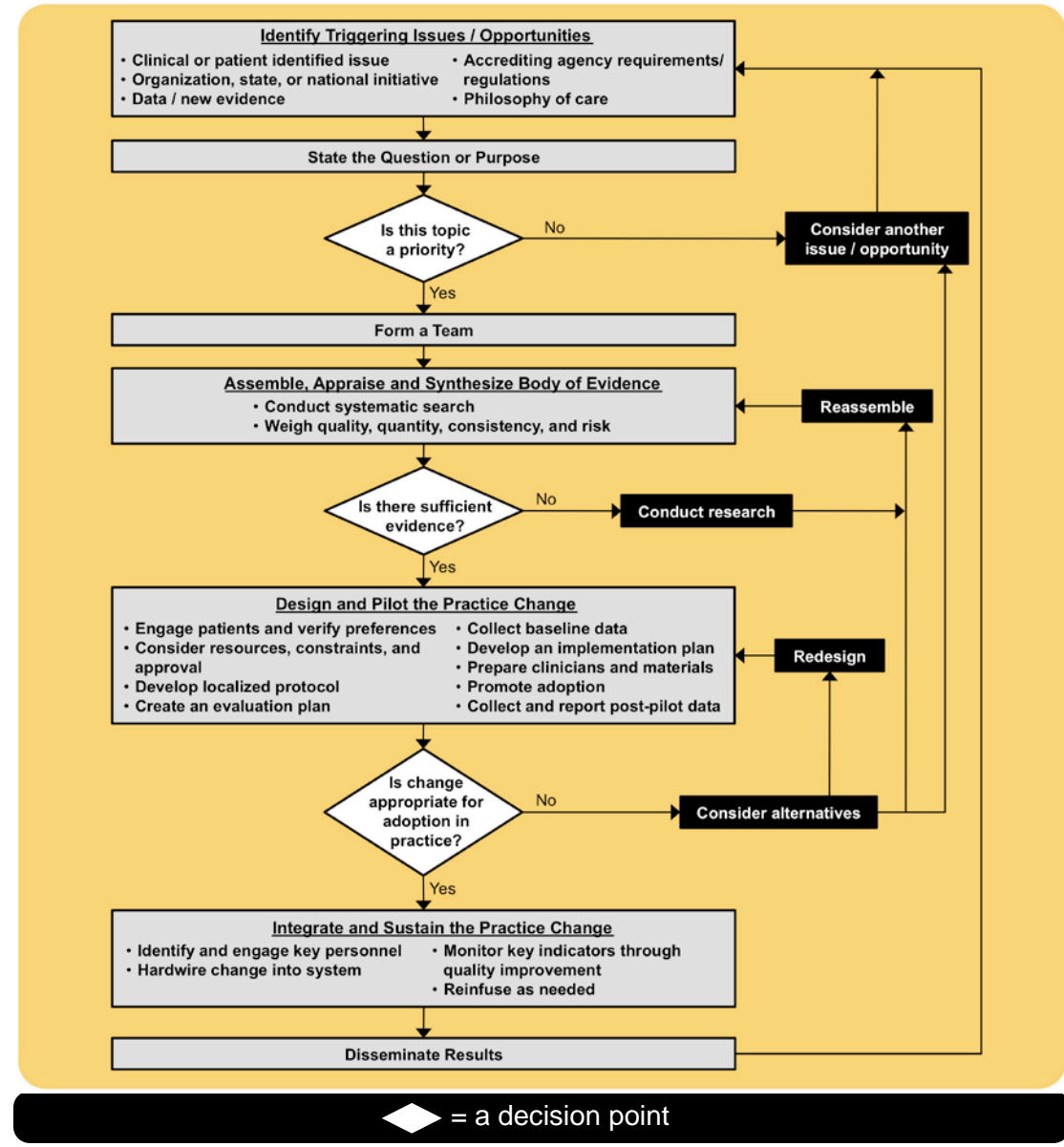
The purpose of this evidence-based practice (EBP) project was to reduce falls and falls with injury on an acute neuroscience inpatient unit. A **Stop! Collaborate and Listen: Fall Prevention Deserves Your Attention** campaign was used to re-infuse existing fall prevention strategies and to implement new fall prevention interventions.

Challenges with Neuroscience Patients

- Fall risk assessment tools result in the majority of neuroscience patients being at high risk, lessening the value of the assessment
- Fall risk assessments and interventions need to be population specific
- Gaps in knowledge regarding fall prevention strategies
- Equipment and technology gaps hinder implementation of interventions to prevent falls

Process

The Iowa Model Revised: Evidence-Based Practice to Promote Excellence in Health Care¹



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Synthesis of Evidence

- Between 700,000 and 1,000,000 patients fall annually^{2,8}
- The neuroscience patient population has one of the highest fall rates ranging from 8.9-17.1 falls per 1,000 patient days³
- Average cost of a fall is \$4,233 per event⁴
- Average cost of a fall with injury sustained in a healthcare facility is about \$14,000⁹
- Approximately one-third of inpatient falls can be prevented^{2,8}
- Risk factors specific to neuroscience patients:
 - Altered mental status (poor short term memory, impulsiveness)
 - Sensory/communication deficits
 - Gait/movement disorders/paralysis
 - Medications (CNS medications including opioids, psychotropics, anticonvulsants, & benzodiazepines)
 - Altered elimination
 - History of falls
- Literature reviewed to find a fall risk assessment tool specific to neuroscience patients
 - Current institutional Fall Risk Assessment Scale (FRAS), modified from Risk Assessment for Falls Scale II, found to be best available⁵
- Alternatives to restraint, such as weighted blankets, provide deep pressure touch resulting in:
 - A release of serotonin and endorphins impacting mood, sleep, and sensory perception⁷
 - Reduced anxiety due to a calming feeling like being hugged or swaddled⁷

Interventions

Falls Risk Assessment Scale⁵

Subscale	Definition	Scoring
Elimination	Nocturia, frequency, urgency, diarrhea, incontinence, diuresis, etc	0 = No problems 1 = 1 problem 2 = 2 problems 3 = 3 or more problems or new onset of a problem(s)
Mobility/Ambulation	Ambulation level	0 = no assistance needed 1 = with assist of 1 person 2 = with assist of 2 people 3 = patient is on bedrest or unable to ambulate Score patients “no assistance” if able to ambulate independently with assistive device (e.g., cane, walker)
Mental Status	Orientation level and judgment	0 = no disorientation 1 = oriented to person and place 2 = oriented to person only 3 = disoriented or impaired judgment
Sensory/Communication Deficit	Vision, hearing, speech deficit, neuropathy or language barrier	0 = No deficits 1 = corrected deficit(s) (e.g., glasses, hearing aid, etc.) 2 = uncorrected deficit (e.g., glasses not available) 3 = New onset of deficit or communication deficit Patients with new onset of altered sensation (e.g., epidural, spinal cord injury/disease) score a 3 Language barrier may be rated as a 2=Deficit without correction
Medications	CV medications include antihypertensives, diuretics, antiarrhythmics; CNS medications include opioids, psychotropics, anticonvulsants, and benzodiazepines	0 = no CV or CNS meds 1 = CV meds 2 = CNS meds 3 = CV and CNS meds
Last Fall Occurrence	Time since last fall	0 = no known falls 1 = fall > 6 months ago 2 = fall 1-6 months ago 3 = fall within last month 7= fall within current admission
Age	Category for age in years	0 = <20 years 1 = 20-60 years 2 = 61-74 years 3 = >74 years

- There are two levels of fall interventions based on the patient score:
 - Fall Protection:** Intervention initiated on all patients upon admission
 - Fall Prevention:** Risk specific interventions initiated on patients with a score of ≥7 or if nursing judgment indicates the patient is at risk for falling

Reinfused Interventions

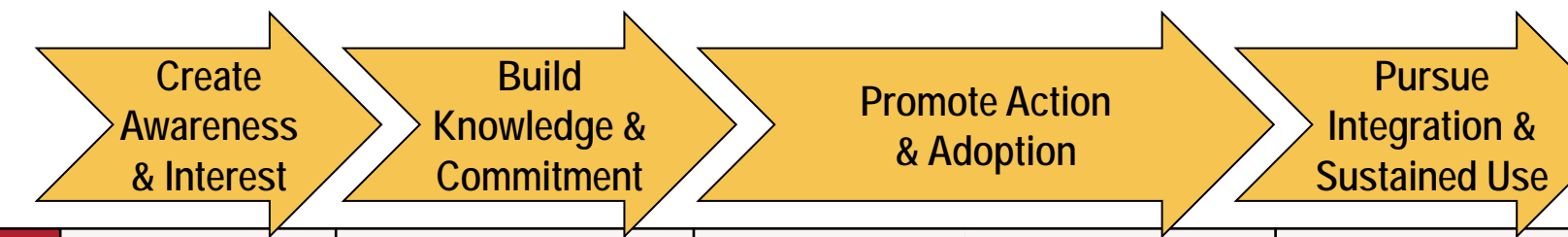
- Retrained on the Fall Risk Assessment Scale and automated audits in the electronic documentation system
- Reinfused the institutional Falls Prevention Program, including interventions specific to each risk factor
- Partnered with biomedical department to enhance usability of equipment
- Retrained on the importance of integrating bed alarm & call light cables
- Increased access to low beds and fall reduction chairs

New Interventions

- Personal alarms for high risk patients when out of bed
- No Pass Zone: All staff answering all call lights all the time
- Proactive rounding
- EBP project evaluating and implementing weighted blankets to provide deep pressure touch

Implementation Strategies

Phased Implementation of EBP⁶



Connecting with Clinicians, Organizational Leaders and Key Stakeholders	<ul style="list-style-type: none">Highlight advantages of falls preventionContinuing education programsSlogans & logosStaff meetingsUnit newsletterUnit in-servicesDistribute key evidence with posters and postings/flyersAnnouncements & text messages	<ul style="list-style-type: none">Education on falls risk assessment and interventionsChange agents (e.g., fall committee, change champions)Make impact observableGap assessment/gap analysisListen to patient and clinician inputLocal adaptation of fall interventions to neuroscience patientsMatch practice change with resources & equipment (bed alarm)Integrate practice change with other EBP (e.g., weighted blankets)	<ul style="list-style-type: none">Reminders or practice prompts (e.g., best practice advisory alert computer charting)Demonstrate workflow or decision algorithm linking risk factors with specific interventionsSkill competenceGive evaluation results to colleaguesIncentives	<ul style="list-style-type: none">Multidisciplinary discussion & troubleshootingFall prevention “elevator speech”Data collection by cliniciansReport progress & updatesChange agents role modelProvide recognition at the point of careEncourage staff to try the practice change (e.g., weighted blankets)	<ul style="list-style-type: none">Shared data demonstrating reduced fallsCelebrate local unit progressPersonalize the messages to staff based on actual improvement dataPeer influenceUpdate practice reminders
Building Organizational System Support	<ul style="list-style-type: none">Senior executives appraised of benefits of technology updates and weighted blanketsPublicize new equipment (e.g., personal alarms, weighted blankets)	<ul style="list-style-type: none">TeamworkBenchmark dataInform organizational leadersReport within organizational infrastructureAction planReport to senior leaders	<ul style="list-style-type: none">Audit key indicatorsActionable and timely data feedbackNon-punitive discussion of resultsUpdates to orientation checklistDocumentationStanding ordersPatient remindersPatient decision aides	<ul style="list-style-type: none">Rounding by unit & organizational leadershipReport into quality improvement programReport to senior leadersAction planLink to patient/family needs & organizational priorities	<ul style="list-style-type: none">Audit and feedbackReport to senior leadersReport into quality improvement programProject responsibility in unit or organizational committeeIncorporated into strategic planTrend resultsPresent in educational programs

Conclusions and Next Steps

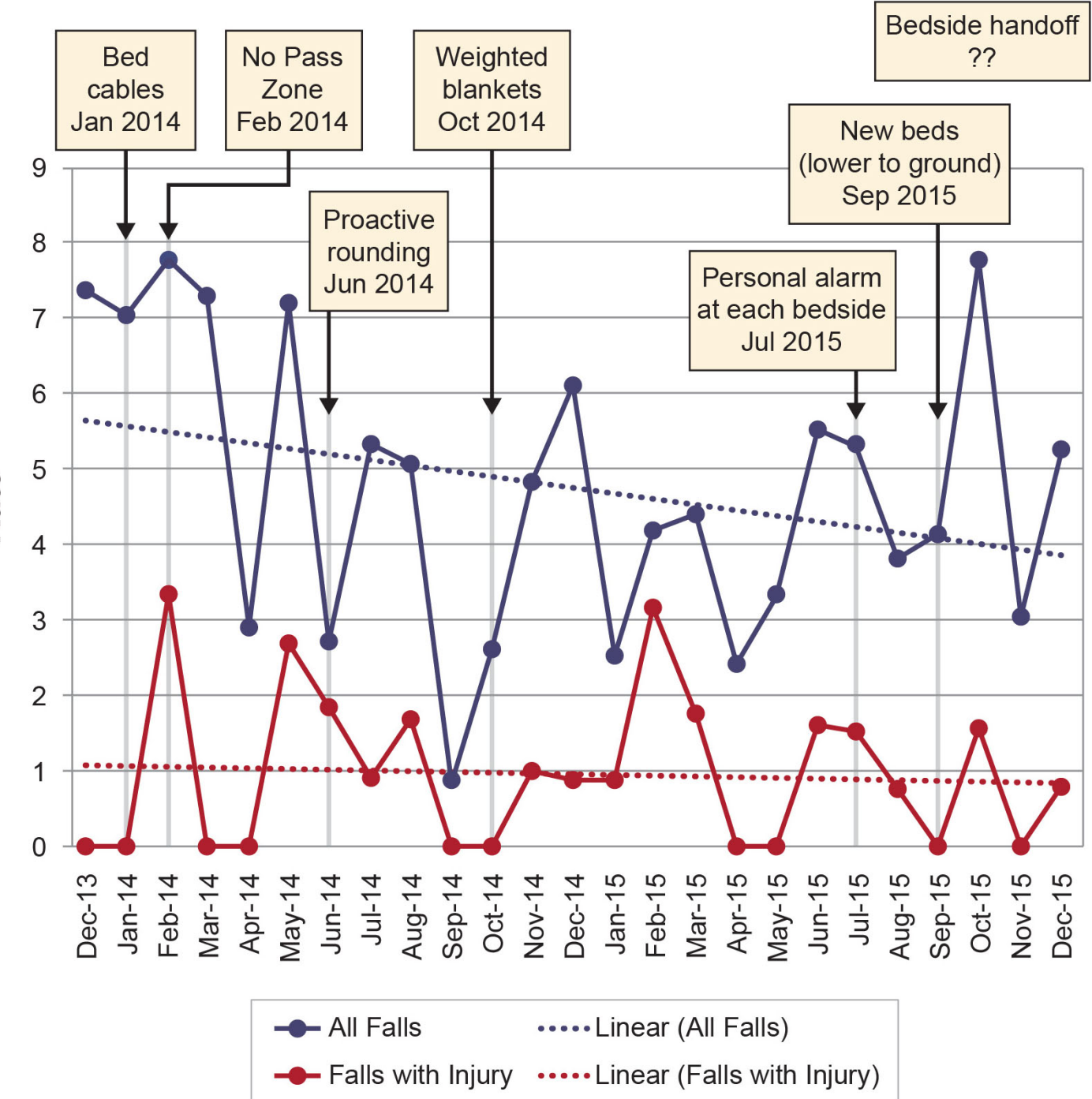
- The **Stop! Collaborate and Listen: Fall Prevention Deserves Your Attention** campaign was an effective method of capturing the attention of busy clinicians and resulted in reduction in falls and falls with injury
- The Iowa Model of EBP provided a useful framework for EBP projects
- Successful practice changes and injury reduction occur when a phased multi-faceted approach to implementation is utilized
- Continued efforts aimed at staff awareness and implementation of fall prevention interventions and injury reduction interventions will be ongoing with new nurse hires and product updates
- Ongoing work includes: monitoring evidence for a falls risk assessment tool specific to neuroscience patients, video monitoring technology and integrating bed alarm system with RN phones, adding fall injury risk column to nursing assignment sheet, and partnering with vendors to develop a low bed that is self-propelled

References:

- UIHC (nd.) Iowa Model Revised: Evidence-Based Practice to Promote Excellence in Health Care. Retrieved from <https://www.uihealthcare.org/otherservices.aspx?id=1617>, on January 19, 2016. *Used/Reprinted with permission from the University of Iowa Hospitals and Clinics. Copyright 2015. For permission to use or reproduce the model, please contact the University of Iowa Hospitals and Clinics at (319)384-9098.*
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Evaluation

6JCP Falls Rate per 1000 Patient Days with Linear Trend



• **17% fall rate reduction**

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