The nurse who won’t give up on falls

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Innovations in Fall and Fall Injury Prevention and Reduction Strategies Within Hospitals

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My Goals:

*Challenge and inspire* you to enhance your fall and fall injury prevention program’s clinical relevance and impact to improve patients’ function, safety and well-being.

*Affirm our Moral Imperative* to reduce fall risks through individualized fall prevention management that promote patients’ health, independence and quality of life.
Learning outcomes

• Differentiate clinical practice for fallers vs. those at-risk for falls, with emphasis on the ER.
• Discuss essential elements and guidelines for preventable fall and fall injury prevention programs.
• Examine expected fall and fall injury prevention program attributes.
• Identify opportunities to enhance fall and fall injury prevention program infrastructure, capacity and how to sustain improvements.
The Problem of Falls: Chronic (Orphan) Issue in Patient Safety
The Burden of Falls

Every second an older adult falls.

- 36M falls
- 8M injuries
- 3M ED visits
- 950K hospitalizations
- 32K deaths

2018 https://www.cdc.gov/steadi/provider-training/index.html
Fall Risk Screening and Assessment

• Every Older Adult who enters the ED should have a Fall Care Plan Started:
  • Screen – History
  • Assessment
  • Functional Assessment (for those who can, when stable and at appropriate level of care)

• *Navigate Pathway of Care*
ER Admission to Home

- ER clinical staff reviews ER findings
- Continues with Multifactorial Assessment: Fall and Injury Risk
- Initiate Individualized Care Plan
- Monitor Patient Response to Care Plan and modify based on patient’s response and change in conditions
- Patient/Caregiver Education and Partnership
- Patient provided discharge plan for follow-up mitigation strategies with their PCP
- Referrals to appropriate providers (PT, OT, etc.) when applicable based on risks
- Home Safety (STEADI Resources)
- Follow-up phone call: Recurrent Fall
- Patient engages with orders, educational materials and continues to monitor fall risk with PCP throughout the year
ER to Admission: Patient Presents To ER due to a Fall

• Determine Etiology of the Fall (OH, BS, Balance Loss, MI, Slip/Trip, etc.)
• If urgent/emergent, treatment; or
• Triage . . . Screen for Fall Risk Factors (Hx of Previous Falls, Medications, Mental Status, Balance, Continence)
• Prepare for admission – Handoff (see Handoff Tool)
• Signage: Known Faller

- Best Practice Approach in Hospitals:
  - Implementation of safer environment of care for the whole patient cohort (flooring, lighting, observation, threats to mobilizing, signposting, personal aids and possessions, furniture, footwear)
  - Identification of specific, modifiable fall risk factors
  - Implementation of interventions targeting those risk factors so as to prevent falls
  - Interventions to reduce risk of injury to those people who do fall

(Oliver, et al., 2010, p. 685)
National Guidelines Have Shifted

• Reduce individual fall and injury risk factors (Individualized Care)
• Integrate injury risk/history on admission
• Implement universal injury reduction strategies
• Implement population-specific fall injury reduction intervention
• Reduce harm from Falls
• Lead efforts to raise awareness of the need to prevent falls resulting in injury.
• Establish an interdisciplinary fall injury prevention team or evaluate the membership of the team in place.
• Use a standardized, validated tool to identify risk factors for falls, assess fall and injury risk factors.
• Develop an individualized plan of care based on identified fall and injury risks, and implement interventions specific to a patient, population or setting.
• Standardize and apply practices and interventions demonstrated to be effective, including:
  • A standardized hand-off communication process
  • One-to-one education of each patient at the bedside

• Conduct post-fall management, which includes: a post-fall huddle; a system of honest, transparent reporting; trending and analysis of falls, which can inform improvement efforts; and reassess the patient
  • Conduct a post-fall huddle
  • Report, aggregate and analyze the contributing factors on an ongoing basis to inform improvement efforts
Program Evaluation Process

• Process by which individuals work together to improve systems and processes with the intention to improve outcomes.*


How do you measure Program Effectiveness?
Program Effectiveness: Fall Prevention

• **Organizational Level**: Expert interdisciplinary fall team, population-specific fall prevention, leadership, environmental safety, safe patient equipment, post-fall huddles, Unit-based Champions

• **Unit Level**: Education, communication-handoff, universal and population-based fall-prevention approaches, patient engagement, technology integration, individualized fall prevention care planning

• **Patient Level**: Exercise, medication modification, orthostasis management, assistive mobility aides, teach-back, patient teach back
Program Effectiveness: **Protection from Serious Injury**

- **Organizational Level**: Know your population – risk adjust; determine capacity/readiness to protect from injury: available helmets, hip protectors, floor mats, height-adjustable beds; elimination of sharp edges

- **Unit Level**: Education, adherence to interventions, communication-handoff includes risk for injury, intention to protect from harm

- **Patient Level**: Adherence with hip protector use, helmet use; understands purpose of floor mats
Reconsider Overall Falls (Fall Rate) as Outcome

• Shift focus from fall rates to measure **preventable** falls (accidental and anticipated physiological falls).

• Also, measure effectiveness of interventions to **mitigate or eliminate fall risk factors** (remember Oliver article, recommendations 2 and 3): Number (and type) of modifiable fall risk factors modified or eliminated upon DC.
Nationally Adopted Interventions to Reduce Preventable Falls and Fall-related Injuries

- Identify and address each patient’s specific fall and injury risk factors (LeLaurin & Shorr, 2019)
- Integrate new systems and devices (webcams, video tele-sitter technology) that better predict and prevent falls than bed alarms (LeLaurin, et al; Quigley, et al, 2019)
- System-based interventions work: Toileting (i.e. wake em, take em; timed toileting; assist in and out of bed) (Resnick & Boltz, 2019)

May, 2019, Clinics in Geriatric Medicine
Nationally Adopted Interventions to Reduce Preventable Falls and Fall-related Injuries

• Interventions to increase physical activity (motivate and engage patients in activity) increase function and mobility (Resnick & Boltz, 2019)

• Function-focused care – increases physical activity (Resnick & Boltz)

• Frequent medical review minimizes the effects of treatments (ACE units; Acute Care for Elders) (Resnick & Boltz)

May, 2019, Clinics in Geriatric Medicine
The evidence supports opportunities to enhance fall and fall with injury prevention program infrastructure.

What will you do to *Change Practice, Environments*?

That’s Implementation Science

- Focus on risk factors
- Focus on preventing injury
- Learn from falls that occur in your care
Focus on Identifying **Risk Factors** and Activating Interventions to Address Each Risk Factor by Population

Identify high risk or **vulnerable populations** to conduct a multifactorial assessment

- Patients admitted for a fall
- High risk for injury – A,B,C,S
- Known faller

Complete 65 and older, pre-mobility admission assessment

Known faller status to EMR banner
Identifying Risk Factors: Activating Interventions to Address Each Risk Factor

- Medication review
- Urinary catheter or IV discontinuation ASAP
- Mobility aids and assistance with walking
- Scheduled toileting - individualized
- Appropriate footwear – not non-skid socks
- Individualized rounding
- Patient engagement and partnership in identifying risks, consequences of a fall and needed safety interventions
Focus on Preventing Injuries from Falls

• A,B,C,S - select a population at injury risk

Interventions –
• Use floor mats, hip protectors, helmets, gait belts
• Assess and mitigate unsafe environmental hazards: thresholds, sharp edges, hard surfaces, water on floors

Interventions to protect patients from injury are separate and distinct from fall prevention
Focus on Learning From Falls/Fallers

Post-Fall Huddle - Do You Have Confidence that no patient falls again due to the same reason as the first fall?

Or

Falls from Bed/Chair Unassisted

• **Interventions**: Repurpose alarms as position-sensing devices – set a new goal to increase number of Assisted Bed Exists (new idea!)

• Establish criteria for toileting supervision based on clinical criteria: arms length, foot in the door, help staff stay on task
Opportunities to Enhance Fall and Fall with Injury Prevention Program Infrastructure and Capacity

- Select a model
- Set goals
- Conduct baseline assessment
- Identify gap between what is expected and what exists in practice
- Prioritize opportunities for improvement
- Develop a strategic plan
- Develop implementation plan
- Determine feasibility: Continue or terminate
- To continue, develop strategies for sustainability and enculturation
- Celebrate success
Preparation Phase

- Assess effectiveness of current team and change membership and/or leadership to bring fresh ideas
- Reinvent your team if needed
- Select unit-based champions for local accountability (subgroup of falls committees)
- Safe environment checks and opportunity to catch hazards; clutter rounds
- Determine data to be collected and data collection and analysis tools

And much more.........
Always Set Goals

• Reduce preventable falls by 50% in 1 year
  • Accidental
  • Anticipated physiological falls
• Reduce fall-related injuries by 60% in 1 year
• 100% completion of post-fall huddles in 4 months

Remember, goals have a measurable outcome and a timeframe for accomplishment
Accidental Falls Due to Falls from Low Beds

• Structure Goal: Develop a safe bed program (height-adjustable beds, safe exit side, concave mattresses)
• Outcome Goal: Reduce bed-related patient falls due to suboptimal height by 70 % on rehab unit within 1 year
• Set up your Task Force
Anticipated Physiological Falls due to **Postural Hypotension**

- **Structural Goal:** Implement a postural hypotension program (P&P, EMR templates; patient assessment and care management) by **5 months**
- **Outcome Goal:** Reduce falls due to OH on a med/surg unit by **80% in 12 months (7 months of evaluation)**
- **Set up your Task Force**
Decreased Falls Related to Toileting

• Structure Goal: Implement a Safe Assisted Toileting Program (Population-Selection, Scheduled Toileting Program, Sensor Technology, pilot test, P&P development, EMR template, staff education, patient education) by 8 months

• Outcome Goal: Within 1 year, 50% decrease in toileting-related falls

• Set up your Task Force
Wireless Motion Sensor

- Will alarm to notify staff if the patient enters the toileting area unattended or can be positioned to be used when a patient is getting off the toilet without assistance
  - Cordless solution
  - Mounts to wall or can be set on a shelf
  - Replaces traditional toilet seat sensors
  - Aligned to Nurse Call Systems when paired with Curbell’s BC600 monitor
  - Eliminate False Alarms
Injury Prevention: Bedside Mats/Fall Cushions

- Bedside Fall Cushions
- Floor Sensor Cushions
- Floor Sensor Mat
- Tri-Fold Bedside Mat
- Roll-On Bedside Mat
- Soft Fall bedside Mat
- New Innovative Floor Mat – HD Nursing
  - SenseAi
Implement the Post-Fall Huddle

• Structure Goal: Post-fall huddle processes implemented in P&P, via clinical education program, debrief for preventability, and QI
• Outcome Goal: Within 4 months, 100% of falls will have a post-fall huddle completed
• Set up your Task Force
Ready To Pilot Test

• Have others that have some knowledge about the change review and comment on its feasibility.
• Test the change on the members of the team that helped develop it before introducing the change to others.
• Conduct the test in one unit/shift or with one group of patients.
• Conduct the test over a short time period.
• Test the change on a small group of volunteers.
Get Ready for Action: PDSA CYCLE

- ACT
- PLAN
- STUDY
- DO
Model for Improvement - PDSA

Sequential building of knowledge under a wide range of conditions

DATA

Hunches
Theories
Ideas

Very Small Scale Test

Follow-up Tests

Wide-Scale Tests of Change

Implementation of Change

Spread

Changes That Result in Improvement

APSD

APSD

APSD

APSD
A Model for Improvement

What are we trying to accomplish?

How will we know that a change is an improvement?

What change can we make that will result in improvement?
Was the Change an Improvement?

Measure Structure/Process

Measure Specific Outcome
Aim: Implement Post-Fall Huddle on Med Surg Unit/Service

Cycle 1: Nurse convenes a huddle with near fall

Cycle 2: Repeat cycle 1 for actual fall

Cycle 3: Have PT and Hospitalist attend post-fall huddle

Cycle 4: Expand post-fall huddle to other RNs on the unit and/or night shift

Cycle 5: Expand team to other members

Cycle 6: Expand huddle to all staff on the unit
Overall Aim: Decrease Preventable Falls Rate by 50% in 12 months
Tips for Measurements

• Seek usefulness, not perfection
• Use sampling. Ex: 10 charts per week
• Don’t wait for the information system
• Report percentages & rates, not absolute numbers
• Take outcome measures at least 1x/month
• Take process measures at least 2x/month
• Plot data over time, run charts
Examples of Process Measures

Percentage of:

- Patients at risk for falls and fall-related injuries with interventions in place
- Patients ≥65 with OH assessed before ambulation
- Observation, chart review

Process measures answer the question: “Are we doing the things we think will lead to improvement in outcome?”
Outcome Measures

- Major Injury Rate
- Preventable Fall Rate by Type of Fall
- Balancing Measures
Rethink Zero...

• Are you still trying to get to zero fall rates?
• Rethink this.....
• Always remember the other side of the equation
Redesign Your Fall Injury Prevention Committee: Action Oriented Toward Goals

• Plan agenda based on strategic plan
• **Think quarterly workflow, analysis and support**
• Meeting month 1 and month 2: Work on the task forces
• Meeting month 3 of the quarter: Task force chairs report on progress; evaluate strategic plan
Manage Change

• Help the Implementation Team succeed
• Be Mission focused
• Monitor Structures and Processes
• Reduce Barriers and Increase Facilitators
• Celebrate Successes
How to Sustain Improvements

- Leader
- Fall Committee Liaison
- Champion Cheer Leader
- Unit-Peer Leaders

- Role Model
- Educator/CNS
- Change Agent
- Develop Story Book of Innovation and Success
Re-Engineer Your Committee

• Think Quarterly
  • First and Second Month – Work of Task Forces
  • Third Month – Report of Task Forces, Review Strategic Plan
• Change from Reporting Falls to Reporting Improvements in Patient Safety
• Celebrate Success!
Continue to Learn

• Turn failures into opportunities
• Conduct tests of change
• Engage the bedside experts in small scale testing of emerging evidence-based practices
• Refine your tools
• Spread best practices
• Keep your eye on the evidence – Not all evidence is worthy of change
• Embrace Innovation
Keep Thinking *Out of the Box!*

- Leadership: Culture of safety
- Fall rounds
- Signage
- Frequency of fall risk screening
- Measurements of effectiveness
My Oreo and My Jethro
Thank You and Please Share More!

• Thank you for attending, be a Champion for Change, and keep me posted – I am here for you!

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