Falls Prevention Strategies and Best Practices

Pat Quigley, PhD, MPH, ARNP, CRRN, FAAN, FAANP
Associate Director,
VISN 8 Patient Safety Center of Inquiry

Hosted by FHA HEN

Wednesday, Sept. 24, 2014
9:00 – 10:30 a.m. ET
Agenda for Today’s Call

- Current data for FHA HEN - Phyllis Byles, FHA
- Polling Questions
- Presentation - Dr. Pat Quigley
- Timelines for HEN initiatives/efforts
- Goals going forward 2015
- Questions/Pearls from participants
Current Status

• Falls - For Florida
  – 77 hospitals participating - 100% reporting
  – 60 hospitals have achieved 40% improvement
  – While we have done well, we still and WILL ALWAYS have to sustain our successes!
  – Those who have not achieved improvement will still need to apply EBP and hard wire for success.
Polling Question #1

• Who are our participants today?
  – Large/community acute care facilities
  – Rural hospitals /CAH (25 beds or less)
  – Rehabilitation facilities
  – Psychiatric facilities
  – Other
Polling Question #2

• Have you met your target goal for decreasing falls in your facility?
  – Yes
  – No
Polling Question #3

• Have you decreased falls with injury?
  – Yes
  – No
Pat Quigley, PhD, MPH, ARNP, CRRN, FAAN, FAANP

Patricia Quigley, PhD, MPH, ARNP, CRRN, FAAN, FAANP, Associate Director, VISN 8 Patient Safety Center of Inquiry, is both a Clinical Nurse Specialist and a Nurse Practitioner in Rehabilitation. As Associate Chief of Nursing for Research, she is also a funded researcher with the Research Center of Excellence: Maximizing Rehabilitation Outcomes, jointly funding by HSR&D and RR&D. Her contributions to patient safety, nursing and rehabilitation are evident at a national level – with emphasis on clinical practice innovations designed to promote elders’ independence and safety. She is nationally known for her program of research in patient safety, particularly in fall prevention. The falls program research agenda continues to drive research efforts across health services and rehabilitation researchers.
Fall and Fall-Injury Prevention: Best Practices

Pat Quigley, PhD, MPH, ARNP, CRRN, FAAN, FAANP
Associate Director, VISN 8 Patient Safety Center
Associate Chief for Nursing Service/Research

E-Mail: patricia.quigley@va.gov
Objectives

- Illustrate Relationship of Complementary Perspectives of Evidence-based Practice
- Translate Actionable Elements of a Fall Prevention Program
- Segment Vulnerable High Risk Populations to Prevent Injury
- Organize 2 strategies to implement and evaluate Evidence-based Practices to Prevent Falls and Reduce Severity of Injury
Integration of Complementary Perspectives

Knowledge → Innovation Diffusion

Knowledge Transfer → Outcome

Knowledge Transfer → Evidence-based Practice
Three Perspectives

Evidence-based Practice (Sackett)
“...the conscientious use of current best evidence in making decisions about the care of individual patients or the delivery of health services.”

Innovation Diffusion (Rogers)
The process of communicating new ideas through certain channels over time among members of a social system

Knowledge Transfer (Dixon)
Sharing of common knowledge, that is the knowledge that employees learn from doing the organization’s tasks.
Overview

1. Differentiate Prevention vs. Protection
2. Brief description of our Patient Safety Research Center
3. State of Science related to patient falls
4. Why we have not “cracked the code” for preventing patient falls
5. New and Emerging Research on patient falls
Prevention

- The act of preventing, forstalling, or hindering
Protection

- Shield from exposure, injury or destruction (death)
- Mitigate or make less severe the exposure, injury or destruction
Limits to Science

- Failure to Differentiate Type of Fall
  - Accidental
  - Anticipated Physiological
  - Unanticipated Physiological (Morse 1997)
  - Intentional Falls
- Failure to Link Assessment with Intervention
Where are we?

BEST PRACTICES:

LEVEL OF EVIDENCE
What is Known: Tried and True

The BEST (most effective) fall prevention programs are multifactorial and interdisciplinary (AHRQ I-II, USPSTF A): LTC
Ambulatory Care – AGS Guidelines, 2010
Source of Policy for JCAHO Fall Program Guidance 2007
Ambulatory Care

- AGS, BGS Clinical Practice Guidelines 2010:
  - Assessment
  - Interventions
  - Evidence Grades
  - Bibliography

- www.americangeriatrics.org/health_care_professionals/clinical_practice/clinical_guidelines_recommendations/2010
AGS Guidelines 2010

1. Obtain relevant medical history, physical examination, cognitive and functional assessment
2. Determine multifactorial fall risk:
   a. History of falls
   b. Medications
   c. Gait, balance, and mobility
   d. Visual acuity
   e. Other neurological impairments
   f. Muscle strength
   g. Heart rate and rhythm
   h. Postural hypotension
   i. Feet and footwear
   j. Environmental hazards

Interventions

Initiate multifactorial/multicomponent intervention to address identified risk(s) and prevent falls:

1. Minimize medications
2. Provide individually tailored exercise program
3. Treat vision impairment (including cataract)
4. Manage postural hypotension
5. Manage heart rate and rhythm abnormalities
6. Supplement vitamin D
7. Manage foot and footwear problems
8. Modify the home environment
9. Provide education and information
Must Reads:

• Clinics in Geriatric Medicine, Nov. 2010.

• Clinical Nursing Research, An International Journal. 21(1) Feb. 2012: Special Issue: Falls in the Older Adult.


- 30% to 51% of falls result with some injury
- 80% - 90% are unwitnessed
- 50%-70% occur from bed, bedside chair (suboptimal chair height), or transferring between the two; whereas in mental health units, falls occur while walking
- Risk Factors: Recent fall, muscle weakness, behavioral disturbance, agitation, confusion, urinary incontinence and frequency; prescription of “culprit drugs”; postural hypotension or syncope
Most effective, fall prevention interventions should be targeted at both point of care and strategic levels

• 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)
Who is not at risk for falls and harm?

- Risk Screening
- Risk Assessment
- Differential Diagnosis
- Range of Severity
Accident Theory
Differentiate Screening from Assessment

- **Screening**
  - Disease Detection
  - Who should undergo diagnostic testing for confirmation - Cut off point to be negative or positive

- **Assessment**
  - Data for differential Diagnosis
### Morse Fall Scale

(Morse, 1997, *Preventing patient falls.*

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Scale</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>History of Fall</td>
<td>Yes</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>0</td>
</tr>
<tr>
<td>Secondary Diagnosis</td>
<td>Yes</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>0</td>
</tr>
<tr>
<td>Ambulatory Aid</td>
<td>Furniture</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Crutches / Cane /</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>None / Bed Rest / Wheel Chair / Nurse</td>
<td>0</td>
</tr>
<tr>
<td>IV / Heparin Lock</td>
<td>Yes</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>0</td>
</tr>
<tr>
<td>Gait / Transferring</td>
<td>Impaired</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Weak</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>/ Bed Rest / Immobile</td>
<td>0</td>
</tr>
<tr>
<td>Mental Status</td>
<td>Forgets Limitations</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Oriented to Own Ability</td>
<td>0</td>
</tr>
</tbody>
</table>
In-Patient Settings: Prevent Falls and Protect from Injury

• What is Risk Assessment?
• Universal Fall Precautions
• Segment Populations by Risk
• Patient Centered Care: Health Literacy Actions
• Intervene on Modifiable Intrinsic Risk Factors
• Intervene on Modifiable Extrinsic Risk Factors
• Multi-disciplinary Care Planning
• Rapid Response Team (Nursing or Multidisciplinary)
• Special Emphasis Populations (Cognitively Impaired, >75 yoa, Radiation Treatment, Newly Disabled, who else?)
• Risk for Injury
Interventions

1. Basic preventive and universal falls precautions for all patients
2. Assessment of all patients for risk of falling and sustaining injuries from a fall in the hospital
3. Cultural infrastructure
4. Hospital protocols for those identified at risk of falling
5. Enhanced communication of risk of injury from a fall
6. Customized interventions for those identified at risk of injury from a fall
Protect from Injury

Protecting Patients from Harm –
Our Moral Imperative
Moderate to Serious Injury

- Those that limit function, independence, survival
- Age
- Bones (fractures)
- Bleeds (hemorrhagic injury)
- Surgery (post operative)
# Fall Prevention and Injury Reduction Matrix

(Assumes Universal Falls Prevention Implemented)

<table>
<thead>
<tr>
<th>RISK OF FALL</th>
<th>+ RISK FALL/-- RISK INJURY</th>
<th>--RISK FALL/--RISK INJURY</th>
<th>--RISK FALL/+RISK OF INJURY</th>
<th>+ RISK FALL/+ RISK INJURY</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>Implement fall reduction interventions</td>
<td>Assess, intervene and communicate if <em>injury risk</em> changes</td>
<td>Implement injury prevention interventions</td>
<td>Implement fall reduction interventions</td>
</tr>
<tr>
<td>-</td>
<td>Assess, intervene and communicate if <em>fall risk</em> or <em>injury risk</em> changes</td>
<td></td>
<td>Assess, intervene and communicate if <em>fall risk</em> changes</td>
<td></td>
</tr>
</tbody>
</table>

- RISK OF INJURY FROM A FALL +
Universal Injury Prevention

- Educates patients / families / staff
  - Remember 60% of falls happen at home, 30% in the community, and 10% as inpts.
  - Take opportunity to teach
- Remove sources of potential laceration
  - Sharp edges (furniture)
- Reduce potential trauma impact
  - Use protective barriers (hip protectors, floor mats)
- Use multifactorial approach: COMBINE Interventions
- Hourly Patient Rounds (comfort, safety, pain)
- Examine Environment (safe exit side)
Why Not This?
Make Toilet Safer
Eliminate Sharp Edges

- KidCo
- KidSafe

Search:
- Furniture
- Corner Cushion
Age: > 85 years old

- Education: Teach Back Strategies
- Assistive Devices within reach
- Hip Protectors
- Floor Mats
- Height Adjustable Beds (low when resting only, raise up bed for transfer)
- Safe Exit Side
- Medication Review
Bones

- Hip Protectors
- Low Beds
- Floor Mats
- Evaluation of Osteoporosis
Bleeds

- Evaluate Use of Anticoagulation: Risk for DVT/Embolic Stroke or Fall-related Hemorrhage
- Patient Education
- TBI and Anticoagulation: Helmets
- Wheelchair Users: Anti-tippers
Surgical Patients

- Pre-op Education:
  - Call, Don’t Fall
  - Call Lights
- Post-op Education
- Pain Medication:
  - Offer elimination prior to pain medication
- Increase Frequency of Rounds
Safety Huddles

- Post Fall Analysis
  - What was different this time?
  - When
  - How
  - Why
  - Prevention: Protective Action Steps to Redesign the Plan of Care
Health Literacy

How many patients understand what we tell them or give them to read? According to the research, about 52%

Health Literacy Definition: The degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions.

(Ratzan and Parker, 2000)

IOM Report: Health Literacy: A Prescription to End Confusion 2004
healthliteracy@ama-assn.org
“Teach Back”

“Teach Back” Testing: what are the trends in patients’ difficulty to understand what is taught?

Ask the patient to describe or repeat back in his or her own words what has just been told or taught. Use return demonstration.
Biomechanics of Fall-Related Injuries

Understanding the “rate of splat” and its impact on injury
Summary of Results

Feet First Fall from Bed

No Floor Mat fall over top of bedrails: ~40% chance of severe head injury

No Floor Mat, low bed (No Bedrails): ~25% chance of severe head injury

Low bed with a Floor Mat: ~ 1% chance of severe head injury
Bedside Mats – Fall Cushions

- CARE Pad
  bedside fall cushion
- NOA Floor Mat
- Posey Floor Cushion
- Tri-fold bedside mat
- Roll-on bedside mat
- Soft Fall bedside mat
Technology Resource Guide: Bedside Floor Mats

- Bedside floor mats protect patients from injuries associated with bed-related falls.
- Targeted for VA providers, this web-based guidebook will include: searchable inventory, evaluation of selected features, and cost.
Hip Protectors – Examples

- Safehip
- KPH
- CuraMedica
- HipGuard
- HIPS
Hip Protectors
Hip Protector Toolkit

- This web-based toolkit will include:
  - prescribing guidelines
  - standardized CPRS orders
  - selection of brands and models
  - sizing guidelines
  - protocol for replacement
  - policy template
  - laundering procedure
  - stocking procedure
  - monitoring tools
  - patient education materials
  - provider education materials
Assistive technology for safe mobility-Bed & Chair Monitors

AirPro Alarm
Locator Alarm
Bed & Chair Alarm
Chair Sentry
Economy Pad Alarm
Floor Mat Monitor
Keep Safe
QualCare Alarm
Safe-T Mate Alarmed Seatbelt
Wheelchair-Related Falls

- Current Fall-Risk Assessment tools not effective
- Features of Wheelchairs contribute to risk
- Most common site of injury is NOT hip, but rather fractures of extremities
- Head injury/mortality
What to do when you fall...

VISN 8
Patient Safety Center
Tampa, FL
Testing on a *Small Scale*

- Remember to actually try out new ideas before implementing them.
- Break-down New Changes into a series of small tests - that you will study and modify if needed.
- **No** important change will “fit” your system perfectly.
- You want to “work out the bugs” in the new change before you implement it.
I Fall A lot! Why?
Pat And Her Mom

Getting ready to dance
Questions?
Timeline for HEN

• How Many Days to December 8?

  76 days to meet the goal!

  40% reduction in patient harm

  20% reduction in readmissions
HRET and FHA Strategy

• Intent of CMS for HEN is not known at this time
• HRET and FHA intends to continue the quality initiatives
• Much effort needs to be rewarded and we do not want to lose momentum
• Ongoing planning is occurring and FHA intends to continue to support caregivers in our hospitals to sustain improvement critical to our industry
• Our future will be based on quality and safety in our delivery environment-no matter where that occurs
FHA Pearls of Wisdom

• Collaboration has been the key to our success
• Improvement Leader Fellowship has provided immediate and lasting knowledge and training that will useful going forward
• Sharing of EBP and multiple resources has contributed to providers and front line staff moving forward with confidence and more urgency.
Questions and Open Discussion