Session 3: Best Practice Approach: Fall Risk and Injury Reduction – Focus on Clinical Practice and Patient Engagement

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Overview

1. Profile changing epidemiology of the aging hospital population.

2. Review latest breakthrough and nationally adopted techniques in fall-related injuries in the aging population.

3. Implement population-specific fall and injury prevention practices across settings of care.
Preventing Falls: Call for Action

- Transform healthcare for frailty associated with old age.
- Prevent falls identified as an effective strategy.
- BUT, major area for improvement in routine practice.

2003: IOM: Priority areas for national action: transforming health care quality

- 30% to 51% of falls result with some injury.
- 80% - 90% are unwitnessed.
- 50%-70% occur from bed, bedside chair (suboptimal 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)
• Chapter 19: Preventing In-Facility Falls
• Includes Hip Protectors!
Head Injuries

- The CDC reports falls as the leading cause of TBI for adults aged 75 years and older (CDC, 2015a).

- Of all the TBI-related ED visits in the United States during 2006 to 2010, the 65-years-and-older age group accounted for 81.8% of the TBI-related ED visits (CDC, 2015b). This age group also has the highest rates of TBI-related hospitalization and death.
Population Profile

- Groups at risk for the development of TBI include men, who are twice as likely to sustain a TBI, adults aged 75 years or older, and African Americans who have the highest death rate from TBI (CDC, NCIPC, 2007).

- Older adult residents who experienced head injuries from a fall were more likely to live in assisted living (47.9%; $p < .04$) and to be walking at the time of their fall (69.0% versus 36.1%) compared with older adult fallers without a head injury (Gray-Miceli, Ratcliffe, & Thomasson, 2013).
Hip Fractures

- The CDC estimates that more than 95% of hip fractures are caused by falling, often sideways, on the hip (CDC, 2015c).
- Annually, at least 258,000 hospital admissions for hip fracture among those 65 years and older occur nationwide (CDC, 2015c).
Population Profile

- Women, especially White women, carry the greatest risk for hip fracture compared with men (National Hospital Discharge Survey), African American, or Asian women (Ellis & Trent, 2001).

Survival and Functional Outcomes after Hip Fx among NH Residents

- Outcomes after hip fractures among long term care nursing home resident.

- Data Sources: Medicare Claims Data; Retrospective cohort study, n=60,111 medicare beneficiaries residing in NHs who were hospitalized with hip fracture between July 1, 2005-June 30, 2009.

Outcomes:

- Of 60,111 patients, 21,766 (36.2%) died by 180 days after fracture.
- Among patients not totally dependent in locomotion at baseline, 53.5% died or developed new total dependence within 180 days.
- Function declined substantially after fracture across all ADL domains assessed.
In adjusted analyses:

The greatest decreases in survival after fx occurred with:

- Age older than 90 years of age
- Non-operative fx management
- And advanced comorbidities

(All analyses with statistically significant hazard ratios)
Protect from Injury

Protecting Patients from Harm: Our Moral Imperative
## 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 Falls</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 / Wheelchair</td>
<td>0</td>
</tr>
<tr>
<td>IV Therapy / Heparin Lock</td>
<td>Yes</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>0</td>
</tr>
<tr>
<td>Gait (Transferring) <em>If the patient is in a w/c, this is scored based on the gait the patient uses to transfer</em></td>
<td>Impaired</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Weak</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Normal/ 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>
OTHER RISK FACTORS

Other risks (choose 1 or more)

- History of falling (if 'yes' response to Morse Fall Scale Q1)

Answer both questions

1. Obtain additional fall history:
   - contributing factors to falls
   - frequency of falls in the last three months
   - any other pertinent history

   Fall History:
   *

2. Did patient/resident have a history of injury with prior falls?
   - No
   - Yes - Injury with Fracture
   - Yes - Injury without Fracture
   - Unknown history of injury or injuries

Secondary Diagnosis (if 'yes' response to Morse Fall Scale Q2)

Neither of the above (no history of falling and no secondary diagnosis)
Screening to Assessment

• History of Falls
  ◦ Screen: yes or no
  ◦ Assessment: based on positive or negative screen response

• Assessment must be comprehensive

• Required for rest of nursing process
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.
Prevent serious injurious falls

Promote a culture of safety

Promote the safe use of technology
You can protect patients from injurious falls

5 Essentials to Protect from FRI

- Programmatic shift
- Change in assessment structures: Add risk for FRI and Hx of FRI
- Change in interventions: Environmental redesign
- Assess to protective interventions
- Organizational support
What to Put in Place

Injury Risk Assessment

Injury Prevention Interventions

Interventions specific to Injury Risk

Resources:
http://www.visn8.va.gov/patientsafetycenter/fallsTeam/default.asp
Creating Safe Environment

- Reduce Blunt Force Trauma
- Try to eliminate sharp edges
- Decrease impact from falls
- Ensure Safe Bathrooms! Why?
Why Not This?
Make Toilets Safer
Shower Rooms

- Grab Bars
- Liquid soap vs. bar soap
- Plenty of towels available
- Grit on floors vs. floor mats
- Shower chairs in working order/wheels lock? Right size?
- Does water drain off quickly?
Rubberized Flooring
Eliminate Sharp Edges

- KidCo
- KidSafe

Search:
- Furniture
  - Corner Cushions
Understanding the “rate of splat” and its impact on injury
Falls from High Bed: Head First
Simulating a Fall
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
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
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
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
Emerging Technology and Aging

- Helmets
- Remote Patient Monitoring
  - Mobility and Wandering – Location Tracking
  - Fall Detection
- Real-time Surveillance
  - Wireless
  - Camera Systems
- Ambulatory Aides
  - Laser Light
Patient Engagement: Health Literacy

- 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)

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

- 1 in 3 patients have inadequate health literacy skills.

IOM Report: Health Literacy: A Prescription to End Confusion 2004
healthliteracy@ama-assn.org
Partnering

• **Patients**
  ◦ Need support and education to make good choices
  ◦ Benefit from easy to use directives
  ◦ Need to be accountable
  ◦ Need practical examples to put principles into place

• **Family**
  ◦ Partners in Care – Advocates, Information Gatherers
  ◦ Messengers
  ◦ Provide ongoing assessment in the home
  ◦ Teach clinicians about their safe practices
Autonomy

- What does this mean to you?
- What happens after a fall?
“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. Return demonstration is a similar technique used by diabetic educators, physical therapists, and others. When the health professional hears the patient’s description in her/his own words, further teaching can be accomplished to correct misunderstandings. Never ask whether patients understand; they always say “yes”.
“I want to be sure I explained everything clearly. Can you please explain it back to me so I can be sure I did?”

“I want to make sure I explained this clearly. When you get back home in a few days, what will you tell your [friend or family member] about [key point just discussed]?”

We covered a lot today about preventing falls, and I want to make sure that I explained things clearly. So let’s review what we discussed. What are three strategies that will help you prevent falls?”

“I want to be sure that I did a good job of teaching you today about risk for falls. Could you please tell me in your own words what you are doing to prevent falls? How you will prevent falls in the future?”
When “Teach Back” Is Especially Important:

- New medications
- A new diagnosis
- Instructions for calling for help to BR
- Instructions for self care
  - e.g. ask, “How can you stay safe from falling in the hospital?”
- Patients are cautioned on how to prevent falls in the hospital
  - e.g. young male patients who suddenly have high doses of pain meds but want to toilet themselves. Ask, “How will you best prevent yourself from falling when you are given this powerful drug for pain that is known to cause falls?”
Ask Me 3

- Ask Me 3 materials are available at:
  http://www.npsf.org/askme3/
Ask Me 3 – Adapted for Falls

How many patients understand what we teach them?

- **Teach patients with this format:**
  - Their main problem putting them at fall risk.
  - What they need to do to keep from falling in hospital.
  - Why is it important for them to do this?

- **Check the family’s understanding:**
  - What is the patient’s main problem?
  - What can the patient do to stay safe from falling in the hospital?
  - Why is it important for the patient to do this?
Teaching: After a Fall

- Reframe patient education curricula to include "what happens after a fall".
- What can we learn from this event?
- How can we work together to prevent this again?
Best Practice
Patient Education Brochure
“Anticoagulation: Preventing Injurious Falls”

- Risk for falls
- Practical strategies to prevent injuries
- Actions to take if one falls
- Fall prevention strategies
What to do When you Fall...
Evaluation of Learning

- Design patient education program evaluation as a knowledge and skills checklist for cognitive and psychomotor domains of learning.
- Include Health Literacy Assessment to check ability to comprehend and use health information.
Communication With Patients/Staff About Fall Reduction/Injury Prevention

Label or signal patients: known fallers and those at risk of fall or injury

- Use signage/other visual indicators (bracelets, colored socks, special blankets, etc.).

Ensure Safe Handoffs

- Verbalize and repeat-back risk of fall and risk of harm from fall at change of shift.
- Verbalize and repeat-back risk of fall and risk of harm from fall between departments.
Session 4

- Population-based Approach to Injury Reduction

- But first, Stretch Break!
Moderate to Serious Injury

- Those that limit function, independence, survival
- Age
- Bones (fractures)
- Anticoagulation (hemorrhagic injury)
- Surgery (post operative)
Universal Injury Prevention

- Educates patients / families / staff
  - Remember 60% of falls happen at home, 30% in the community, and 10% as inpatients
  - 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)
Moderate to Serious Injury: A, B, C, S

- Those that limit function, independence, survival
- Age
- Bones (fractures)
- Bleeds / AntiCoagulation (hemorrhagic injury)
- Surgery (post operative)
<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>
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<tbody>
<tr>
<td>+</td>
<td>Implement fall reduction interventions</td>
<td>Assess, intervene and communicate if <em>injury risk</em> changes</td>
<td>Assess, intervene and communicate if <em>fall risk or injury risk</em> changes</td>
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**Fall Prevention and Injury Reduction Matrix**
(Assumes Universal Falls Prevention Implemented)
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
- Height Adjustable Beds (low when resting only, raise up bed for transfer)
- Floor Mats
- Evaluation of Osteoporosis
Bleeds/Anticoagulation

- 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
Detection Methods

- Rounding
- Purposeful Rounding
- Camera Surveillance
- Alarms
Camera Surveillance

- Care View
- AvaSys
Toolkits and Best Practice Recommendations for Fall Prevention

**AHRQ Falls Prevention Toolkit**

**VA NCPS Falls Toolkit**

**ICSI Prevention of Falls Protocol**

**IHI Reducing Patient Injuries from Falls How-to Guide**
From Reducing Falls to Protecting from Fall Related Injury

Integrate Injury Risk /History on Admission

Implement Universal Injury Reduction Strategies

Implement Population-Specific Fall Injury Reduction Interventions
Pat And Her Mom

Getting ready to dance