Preventing Patient Falls and Fall Related Injuries
State of the Science

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Goal and Objectives

Goal: To provide hospital healthcare and quality teams with tools and strategies to reduce preventable falls incidence, injury from falls and outline key components of measuring your success.

During this session you will be provided with an overview of current body of knowledge about reducing falls and fall injuries in hospitals. As a result, you will be able to:

• Outline a new framework for Fall Program Redesign.
• Advance use of Falls Typology to evaluate your program.
• Differentiate falls risk screening from assessment within nursing process.
New 2007 JCAHO Standard: Fall Prevention Program

• Establish a Fall Prevention Program
• Evaluation
• Interventions
• Educate Staff
• Educate Patients and Families
• Program Evaluation
Advancing Science in Patient Safety

4 Challenges of Patient Safety
• **Visibility**: magnitude is hidden
• **Ambiguity**: clear cause and effect is often inconclusive
• **Complexity**: practically everything can have an effect on pt safety
• **Autonomy**: reluctance to supersede orders


Challenges to improve the conduct and reporting of patient safety interventions are keys to evaluation
• Describe the theory: theory or logic why patient safety practice works
• Describe the patient safety practices in detail
• Detail implementation process
• **Assess outcomes and the influence of context** (external factors, organizational characteristics, teamwork and leadership, management tools)

Patient Falls and Injuries

State of the Science
Overview of current body of knowledge about reducing falls and fall injuries in hospitals
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.

• Multifaceted and individualized fall prevention programs used inside and outside hospital setting.
• Thorough review of the strategies revealed they lack strong empirical evidence.
Compelling Need

In the hospital setting, approximately 3%-20% of inpatients fall at least once during their stay. This translates into 4-12 falls per 1000 bed days of care.


In April, 2011, CMS reported that falls with harm were the top adverse event in hospitals.

In VA, Falls is the #1 RCA event.

VA has no national repository for falls data: rates, ranges, age and comorbidity adjusted data.

At present, the largest and only comparative databased is ANA’s NDNQI.
Hospital Falls:

- 80% - 90% are unwitnessed
- 50%-70% occur from bed, bedside chair or transferring between the two; whereas in mental health units, falls occur while walking
- Falls result in increased LOS, higher rates of DC to institutional care, and greater amounts of healthcare resource use
Falls Rates  (Oliver, et al., 2010)

- **Acute Hospitals:**
  - Range 1.3-8.9 falls per 1000 OBDs (single observational studies in hospitals)
  - Range 3-5 falls per 1000 OBDs (multihospital studies)

- **Mental Health Units**
  - Range 2 – 4 falls per 1000 OBDs
  - Psychogeriatric units 17-67 falls per 1000 OBDs

- Rates are the best way of facilitating comparisons between hospitals of different sizes
- Represent well over 1000 falls each year in a large acute hospital
- Perhaps as many as 1 million falls in hospitals per year
Injuries from Falls

- 30% to 51% of falls result with some injury
- Proportion of falls resulting in any fracture range 1%-3%
- Hip Fractures are 1.1%-2%
- Proximal femoral fractures due to falls in hospitals result in poorer health outcomes than those that occur in the community
- Even soft tissue injuries or minor fractures cause significant functional impairment, pain and distress
- Minor or no injuries from falls can mark beginning of negative cycle – FOF, Debility
NQF’s Safe Practices (2010)

- Falls occur frequently in hospitalized patients and LTC residents and are the leading cause of injury-related death for individuals over 65 yoa (CDC, 2006)
- Patients in LTC and hospitals fall 3 times more than the community dwelling persons age 65 and older
- All ages of patients are admitted to oncology, critical care, and infectious disease units are at risk for falls
- In 2009, The Joint Commission reported falls at the 6th most commonly reported sentinel event
- Death occurs in 15% of elderly who fall in the hospital and 33% do not survive beyond one year of fall
Conclusion

• No conclusive medical evidence that multifactorial prevention programs in the acute hospital settings are effective.
• No studies demonstrating statistically significant evidence that any of the individual measures used in the hospital that are often considered to be effective in reducing fall risks are effective, with the exception of addressing delirium.

• Most current recommendations are based on expert opinion.
• Most current recommendations do not increase harm or fall risk, and thus may be safely continued.
• Outside the hospital, multimodal fall prevention programs that include exercise programs, nutrition, and vision care, along with home evaluations for high risk patients, have been shown to be effective.
• Need further investigations, esp. RCTs, in hospitals.
Where is the evidence?

• Multifaceted and individualized programs have been created to prevent falls in the elderly.
• Many of these interventions are based on expert opinion and statistical trends.
• Our review of the literature revealed that the risk of fall is only slightly greater in the hospital environment than in the home.
• There is no medical evidence that evidence-based guidelines are effective in fall prevention.

Limits to Science

• Research methodology Issues: design and conduct of studies
• Lack of control for effectiveness analysis
• Over generalizing fall as the outcome (fall vs. non-fall)
• Interventions based on category of risk (not specific risk factors)
• Fall prevention is usually a complex intervention
• Falls are rare outcome (affects sample size and power)
Inconclusive Evidence

• 2010 Cochrane Review on hospital fall prevention interventions: Inconclusive, provided no recommendations regarding fall prevention interventions in the hospital setting (Cameron, I., et al., 2010. Intervention for preventing falls in older people in nursing facilities and hospitals. Cochrane Database for Systematic Reviews 1, Art. No.: CD005465.)
Hospitals (Oliver, et al., 2010)

- Recommended appropriate approach to fall and injury prevention based on systematic reviews, recent research, and clinical and ethical decisions
- Patient-specific factors: intrinsic risk factors, the physical environment, and riskiness of a person’s own behavior
- Recent fall (fallers); muscle weakness; behavioral disturbance, agitation, or confusion; urinary incontinence or frequency; prescription “culprit” drugs; postural hypotension or syncope.
- Risk increases with advanced age, w/ the highest rates seen in the “oldest old”, older than 85 yoa
Ability to Predict Falls

• Risk screening vs. Risk assessment
• Type of Fall
• In-depth tool validity analysis by Oliver, et al., 2010, suggested need for Comprehensive Fall Risk Assessment to identify modifiable and nonmodifiable risk factors
Hospital Environments

- Majority of hospital beds in developed nations are occupied by older people, many of whom are admitted because of mobility problems, falls or injury from falls (Oliver, et al., 2007)
- Unfamiliar environment
- Poor lighting
- Trip and slip hazards
- Suboptimal chair and bed heights
- Availability of mobility equipment
- Staff availability and attitude
Empiric Evidence for Fall and Injury Prevention in Hospitals

• **Multifactorial components with multiprofessional input** mostly seen in successful trials (note * no two trials bundle the same interventions)
  – Post fall review, patient education, staff education, footwear advice, toileting

• A couple of trials included medication review and prevention and detection of delirium

• Patients themselves favored multifactorial approach reviewed by a health professional
Multi-Professional Involvement is Essential

- No hospitals trials that focused solely on changing nursing practice succeeded in reducing falls or injuries, as is also the case in care home settings
Single Interventions in Hospitals

- **Exercise or Additional PT** (RCTs insufficiently powered to detect effect in reducing falls)
- Increased observation or assistance – intuitive sense but anectodal
- **Patient Education** – multi-media education with trained health professional follow-up has promise to be beneficial in preventing falls
- **Specialist Support to Manage Dementia** – only 1 trial, no difference
- **Cal / Vit D**: effect determined after discharge
- **Hip Protectors** (no trials in acute care; adherence issues in hospitals)
- Flooring to reduce impact: promising
- **Medication Review and Adjustment**: requires specialist pharmacist
- **Prevention and Management of Delirium**
- Reducing sedative and hypnotic medications
Single Interventions without Empiric Evidence

- Continence management or promotion
- Education and training for staff or relatives
- Correction of visual impairment
- Recognition or management of dizziness, syncope, pre-syncope, or postural hypotension
- Attention to footwear
- Environmental modifications (including flooring materials) to prevent falls or injuries
What are the challenges for LTAC/Rehab facilities?
• Reducing the risk of falling can positively affect residents’ quality of life to a considerable extent

• Mean Fall rate 1.7 falls per person-year (range 0.6-3.6), considerably higher than community-based fall rate (mean 0.65; range, 0.3-1.6)

• In a facility with 100 beds, a fall can be expected about qod.
Epidemiology: Around the World

• More than three-fourths of all falls occur in rooms or bathrooms of residents
• Sit-to-stand or stand-to-sit transfers were associated with higher percentage of falls (42%) than walking (35%)
• Nearly 25% of falls required MD or hospitalization
• Falls in LTC result in more serious complications: 10-25% resulting in fractures or lacerations; most serious – hip fractures
• Other injuries (fx pelvis, UE, Spine or skull) result in considerable suffering
Risk factors

• Risk factors: All residents are High Risk (unless immobile or in coma)
• Well-established risk factors:
  – muscular weakness, balance and gait deficits, poor vision, delirium, cognitive and functional impairment, orthostatic hypotension, urinary urge incontinence, and nocturia.
  – Comorbidities (dementia, depression, stroke, PD) may lead to attention deficits, executive dysfunction, or visual field loss – result in higher propensity to fall.
  – Side effects and interactions of drugs
    ▪ Risk of fractures lowest in residents with the most limited physical function
    ▪ Risk for fracture greatest in the immediate period after admission (1 mo)
Acute Rehab Units


• Determine the relationship between admission dx and admission score on Functional Independence Measure (FIM) to the likelihood that a patient will fall.

• To measure the effectiveness of a multifactorial program to reduce falls.
Methods

• The QIT put in place a multifactorial program to reduce the incidence of falls on an inpatient rehabilitation unit.

• The authors reviewed the records of all patients admitted to the rehabilitation unit between January 2006 and December 2009 to determine if the program resulted in a reduced rate of falls.
Findings

- FIM score is inversely related to the rate of falls.
- Patients with adm dX of stroke, brain injury, amputation, neurologic disorders (Parkinson's disease, multiple sclerosis, Guillain-Barre, myopathy, peripheral neuropathy), and spinal cord injury are at higher risk for fall than patients whose admission diagnosis related to orthopedic, cardiac, pulmonary disorders, prolonged stay on medical or surgical units, or trauma without spinal cord injury or head injury.
- There was a significant reduction in the rate of falls from 14.9% to 7.3% of patients admitted to the IRF.
- Patients with low FIM scores, disorders of the central and peripheral nervous system, and amputations are at high risk of fall. Compliance with recommended guidelines can reduce the rate of fall and improve patient safety.
What are we doing? Why?

- Risk Screening vs. Assessment
  - Over reliance on screening tools
- Differential Diagnosis
- Individualized Care Planning
- Identify fallers from non-fallers
- Identify those with injury hx or at risk for injury
- Protecting Patients
- Implementing:
  - Bed Alarms
  - Sitters
  - Intentional / Purposeful Rounding
What are we doing?

• Is your fall and injury prevention plan of care different for a Lt vs. Rt CVA patient?
• Is your fall and injury prevention plan of care interdisciplinary?
• Is your fall and injury prevention plan of care interventions specific to each risk factor?
Most effective, fall prevention interventions should be targeted at both point of care and strategic levels

In nursing homes, focus on modifiable individual and institutional risk factors
• Assessment performed within 1st days of admission and after a fall (Becker & Rapp)

In hospitals, 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)
VA’s Patient Safety Center Studies

• Basic universal fall precautions for all pts
• Assessment for risk for falling
• Culture of safety
• Hospital protocol for fall prevention
• Enhanced communication of risk for injury from a fall
• Customized interventions for those at risk for fall-related injury
• Adjusting bed height, use of floor mats and hip protectors

(Mills, Neily, Quigley, 2005; Neily, Howard, Quigley, Mills, 2005; Applegarth, et al., 2009; Bowers, et al., 2008; Bulat, et al., 2008)
Clinical Judgment

- Evidence-based Practice
  - Vs
- Results of Scientific Inquiry
Outline a framework for Fall Program Redesign
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)
Advance use of Falls Typology to build your business for *Return on Investment*
Types of Falls

• Until You Know Types of Falls occurring, you cannot know the effectiveness of your program.

• Types of falls are:
  – Accidental
  – Anticipated Physiological
  – Unanticipated Physiological  
    (Morse, J. 1997. Preventing patient falls. Sage publication.)
  – Intentional Falls

• Failure to Link Assessment with Intervention
Moving from Screening for Risk to Assessment

• Let’s work this out, starting with **Fall history**.

• Is a screening question on adult scales: Morse Fall Scale, Hendrich I, Schmid, and Johns Hopkins Hospital; pediatric scales: Cummings, Humpty Dumpty, and CHAMPS

• What happens when you ask the question?
  – Time interval for hx of fall(s)?
  – What happens with **Yes** response
  – What happens with **No** response from a patient over 85 yoa?
Morse Fall Scale  (Morse, 1997, *Preventing patient falls.*)

<table>
<thead>
<tr>
<th>Morse Fall Scale</th>
<th>Risk Factor</th>
<th>Scale</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>History of Falls</strong></td>
<td>Yes</td>
<td></td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td><strong>Secondary Diagnosis</strong></td>
<td>Yes</td>
<td></td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td><strong>Ambulatory Aid</strong></td>
<td>Furniture</td>
<td></td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Crutches / Cane</td>
<td></td>
<td>15</td>
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<td></td>
<td>None / Bed Rest</td>
<td></td>
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<tr>
<td></td>
<td>Wheel Chair / Nurse</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>IV / Heparin Lock</strong></td>
<td>Yes</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td><strong>Gait / Transferring</strong></td>
<td>Impaired</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Weak</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>/ Bed Rest / Immobile</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td><strong>Mental Status</strong></td>
<td>Forgets Limitations</td>
<td></td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Oriented to Own Ability</td>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>
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
Practice Example 2

Let’s try another known fall risk factor:

**Dizziness vs Vertigo (Hendrich II; MFS Secondary Dx)**

– Screen: yes or no
– Assessment: based on positive response
– If yes, how do you differentiate which problem: **Dizziness OR Vertigo** – They are Different!!!
Assessment To Interventions

- Interventions should NOT be based on Level of Risk (low, moderate or high)
- Interventions need to be specific to the assessed fall risk factor
  - Examples:
    - Orthostasis vs Vertigo
    - Balance or Gait
- Your interventions MUST be different for the known faller (a patient admitted because of a fall or who falls in your care)
- What about risk for injury if the patient falls?
Functional Assessment Tools

http://www.patientsafety.gov/SafetyTopics/fallstoolkit/

• Chair Sit to Stand Test
• 8 ft Timed Up and Go Test
• Gait Speed Test
• Other assessment
• See Balance Manual
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)
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)

FALL RISK ASSESSMENT
OTHER RISK FACTORS
History of Falling
2. Did patient/resident have a history of injury with prior falls?
   - No
   - Yes - Injury with Fracture

   Location of fracture
   - Hip
   - Wrist
   - Rib
   - Other: *

   - 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)

**FALL RISK ASSESSMENT**

**OTHER RISK FACTORS**
   - History of Falling

Health Factors: HISTORY OF FALLS WITH FRACTURE [Historical]

* Indicates a Required Field
2. Did patient/resident have a history of injury with prior falls?

- No
- Yes - Injury with Fracture
- Yes - Injury without Fracture

Describe type of injury (ies)

- 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)

FALL PREVENTION INTERVENTIONS

History of Falling

<No encounter information entered>

* Indicates a Required Field
Secondary Diagnosis (if 'yes' response to Morse Fall Scale Q2)

answer both questions

1. Is patient/resident on multiple medications to manage multiple co-morbidities?
   - No
   - Yes

2. Is patient/resident currently on any medications that increase a patient/resident's risk for falling or a risk for injury with falls?
   - Diuretics
   - Sedatives
   - Opioids
   - Analgesics
   - Hypnotics
   - Antihypertensives
   - Anticoagulants
   - Psychotropics
   - Antidepressants
   - Other
   - None of the above
# Reminder Dialog Template: VANOD FALL RISK

- [ ] Psychotropics
- [ ] Antidepressants
- [ ] Other
- [ ] None of the above

**Active Inpatient Medications (including Supplies):**

<table>
<thead>
<tr>
<th>Inpatient Medications</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.</strong> ALBUTEROL 0.083% INHALED SOLN, INHL 1 PILLOW IN NEB Q6H VIA NEBULIZER</td>
<td>ACTIVE</td>
</tr>
<tr>
<td><strong>2.</strong> AMPICILLIN INJ AMPICILLIN 1 GM in NS 50 ML INFUSE OVER 30 MIN. INDICATION: TOTAL NUMBER OF DOSES: IV PIGGYBACK Q6H</td>
<td>ACTIVE</td>
</tr>
<tr>
<td><strong>3.</strong> ASCORBIC ACID TAB 500MG PO QID</td>
<td>ACTIVE</td>
</tr>
<tr>
<td><strong>4.</strong> BACLOFEN TAB 20MG PO QID</td>
<td>ACTIVE</td>
</tr>
<tr>
<td><strong>5.</strong> DEXTROSE 5% AND 1/2NS 20MEQ KCL INJ, SOLN in D5 1/2NS WITH 20 KCL 1000 ML 75 ml/hr IV</td>
<td>ACTIVE</td>
</tr>
<tr>
<td><strong>6.</strong> DIGOXIN INJ, SOLN 0.5MG/2ML IVP QD Hold if HR is &lt;55</td>
<td>ACTIVE</td>
</tr>
</tbody>
</table>

*Indicates a Required Field*
7) INSULIN HUMAN REGULAR INJ SLIDING SCALE SC ACTIVE
   QID-(AC&HS) IF BG <70 = FOLLOW HYPOGLYCEMIA
   PROTOCOL; BG 71-200 = NONE; BG 201-250 = 2 UNITS;
   BG 251-300 = 4 UNITS; BG 301-350 = 6 UNITS; BG
   351-400 = 8 UNITS; BG >400 = 10 UNITS & CALL HO
8) LACTATED RINGER'S INJ,SOLN in LACTATED RINGERS 1000 ACTIVE
   ML 100 ml/hr start IV in time for OR IV
9) METOPROLOL TARTRATE TAB 75MG PO BID Give 1 tab of ACTIVE
   50mg and 1 tab of 25mg
10) NITROGLYCERIN OINT, TOP 1 INCH TOP Q6H ACTIVE
11) OFLOXACIN SOLN, OPH 1 DROP OS QID ACTIVE
12) WARFARIN TAB 10MG PO QD-WARFARIN ACTIVE

Computer is the source for the following medication list:

FLUNISOLIDE 25MCG 200D NASAL INH SPRAY Sig: SPRAY 1 WHIFF IN EACH NOSTRIL TWICE A DAY FOR NASAL ALLERGY SYMPTOMS.
ERLOTINIB 150MG TAB Sig: TAKE ONE TABLET BY MOUTH ONCE DAILY FOR LUNG CANCER;
   TAKE ONE HOUR BEFORE OR TWO HOURS AFTER MEALS.
LORATADINE 10MG TAB Sig: TAKE ONE TABLET BY MOUTH ONCE DAILY FOR ALLERGY SYMPTOMS.

* Indicates a Required Field
hydroxyzine pamoate 25mg cap sig: take one capsule by mouth at bedtime 1-2 hours before going to sleep
calcipotriene 0.005% top cream sig: apply small amount topically twice a day mix with clobetasol ointment before application (1:1 mixture)
clobetasol propionate 0.05% oint sig: apply small amount topically twice a day mix 1:1 with dovoneex ointment
clobetasol propionate 0.05% top soln sig: apply small amount to scalp or hair twice a day apply to plaques on scalp
desonide 0.05% oint sig: apply small amount topically twice a day - apply to affected area on face
ondansetron hcl 8mg tab sig: take one tablet by mouth twice a day for nausea and vomiting.
prochlorperazine maleate 5mg tab sig: take one tablet by mouth four times a day - for nausea and vomiting.
absorbex top oint sig: apply moderate amount topically once daily for dry skin. apply to all skin daily to help with dry skin

non-va meds - none found
OTHER RISK FACTORS
- History of falling (if 'yes' response to Morse Fall Scale Q1)
- Secondary Diagnosis (if 'yes' response to Morse Fall Scale Q2)
- Neither of the above (no history of falling and no secondary diagnosis)

FALL PREVENTION INTERVENTIONS
- Institute Universal Fall Precautions on All Patients/Residents
  Patient/Resident Education:
  - Orient to surroundings
  - Purpose and use of call light
  - Use of non-slip slippers or gripper socks
  - Request assistance for daily activities (such as getting out of bed, toileting, transfers)
  - Purpose and use of assistive devices and mobility aids if needed

FALL RISK ASSESSMENT
OTHER RISK FACTORS
<No encounter information entered>
**Fall Risk Assessment Template**

**History of Falling (if 'yes' response to Morse Fall Scale Question #1)**
- Reinforce need for assisted/supervised transfers (Education)
- Use hip protectors to prevent hip fractures
- Refer to rehabilitation therapy for further evaluation (Acute Care/Long Term Care)
- Implement any recommendations of rehabilitation therapy
- Refer to nursing restorative therapy for further evaluation (Long Term Care)

**Secondary Diagnosis (if 'yes' response to Morse Fall Scale Question #2)**
- Patient/Resident uses Ambulatory Aids (positive response to Morse Fall Scale Question #3)
- IV / Heplock / Saline Lock (if 'yes' response to Morse Fall Scale Question #4)

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**Health Factors:** Other intervention - Hx of Falling (Historical)

*Indicates a Required Field*
Secondary Diagnosis (if 'yes' response to Morse Fall Scale Question #2)

- Reinforce MD instructions for prevention of complications related to medical diagnoses/problems
- Review medications with patient/resident and family/support person and take into account risks specific to the patient/resident
- Instruct patient/resident in medication time/dose, side effects and interactions with food or other medications and supplements
- Evaluate for orthostasis

Complete surveillance rounds

- Every 15 minutes
- Every 30 minutes
- Every 1 hour
- Every 2 hours
- Other:

FALL RISK ASSESSMENT

<No encounter information entered>

* Indicates a Required Field
Reminder Dialog Template: VANOD Fall Risk

- Patient/Resident uses Ambulatory Aids (positive response to Morse Fall Scale Question #3)
  - choose at least one
    - Make certain ambulatory devices are in good repair
    - Assess patient/resident's proper use of devices and educate regarding safe use
    - Refer to rehabilitation therapy to assess for proper device
  - Determine if patient/resident is safe to have access to his/her ambulatory aids at all times
  - Other: Comment: *

- IV / Heplock / Saline Lock (if 'yes' response to Morse Fall Scale Question #4)
- Gait and/or Transferring Problems (positive response to Morse Fall Scale Question #5)
- Patient/Resident forgets limitations (Mental Status Assessment) - (positive response to Morse Fall Scale Question #6)
- Other Fall Prevention Interventions (based on clinical judgment)

REFERRAL ORDERS FOR INTERVENTIONS

FALL RISK ASSESSMENT

Health Factors: Determine pt access to ambulatory aid [Historical]. Other intervention - Ambulatory Aids [Historical]

* Indicates a Required Field
**Reminder Dialog Template: VANOD Fall Risk**

- IV / Heplock / Saline Lock (if 'yes' response to Morse Fall Scale Question #4)
  - choose at least one
    - Provide patient/resident/family/support member education: tubing as tripping hazard; effects of IV Medications
    - Other: Comment: *

- Gait and/or Transferring Problems (positive response to Morse Fall Scale Question #5)
- Patient/Resident forgets limitations (Mental Status Assessment) - (positive response to Morse Fall Scale Question #6)
- Other Fall Prevention Interventions (based on clinical judgment)

**REFERRAL ORDERS FOR INTERVENTIONS**

- Order for rehabilitation therapy (Acute Care/Long Term Care)
- Order for nursing restorative therapy (Long Term Care)

*** PROGRESS NOTE EVALUATION SURVEY ****
Please click on the link below to complete a brief survey regarding the use of this note. Your feedback is VITAL to the testing and evaluation of this note.

**FALL RISK ASSESSMENT**

Health Factors: **Other intervention - IV (Historical)**

* Indicates a Required Field
REFERRAL ORDERS FOR INTERVENTIONS

- Order for rehabilitation therapy (Acute Care/Long Term Care)
- Order for nursing restorative therapy (Long Term Care)

*** PROGRESS NOTE EVALUATION SURVEY ****
Please click on the link below to complete a brief survey regarding the use of this note. Your feedback is VITAL to the testing and evaluation of this note.

VANO Fall Risk Note Evaluation Survey

Health Factors: Other intervention - Clinical Judgment (Historical)

* Indicates a Required Field
Cost of Falls

Wu. et al (2010): Epidemiology: Cost Effectiveness of a National Fall Prevention Program

- Falls among 65 and older represent major public health and economic burden for US healthcare system
- Incidence is high: 1/3 of community dwelling and as many as 3/4 of nursing home residents fall each year.
- Of those who fall, 20%-30% suffer consequences such as hip fractures/head trauma, reduced mobility and independence, increased risk of early nursing home admission, and premature death
- Updated to 2010 dollars, 1 fall without serious injury incurred additional annual cost of about $3500 compared to those with no fall
- Those who had 2 or more falls without serious injuries, costs increased by about $16,500
- One or more falls involving at last 1 serious injury were costliest: increasing healthcare costs by $27,000.
- By 2020, more than 4 mil older Americans projected to incur a fall with injury annually, total cost about $47 bil (adjusted to 2010 dollars)
Tiger had reached that age when you just never know.