Fall Prevention

1. Introduction ........................................................................................................... FP: 1
2. Purpose/Overall Goal ........................................................................................ FP: 1
3. Course Objectives ............................................................................................. FP: 1
4. Definitions ........................................................................................................... FP: 2
5. Causes of Falls ..................................................................................................... FP: 3
6. Contributing Factors for Falls ........................................................................... FP: 4
7. Universal Fall Precautions ................................................................................ FP: 5
8. Assessment for Fall Risk .................................................................................... FP: 6
10. Timed Up and Go Test ...................................................................................... FP: 8
11. STRATIFY Risk Assessment Tool ................................................................ FP: 9
12. Morse Fall Scale ............................................................................................... FP: 10
13. Individualized Care Plan ................................................................................ FP: 11
14. Patient and Family Education .......................................................................... FP: 12
15. Conclusion ........................................................................................................ FP: 13

© Copyright Clinical Assessments by Prophecy, a Division of Advanced Practice Strategies
Fall Prevention

INTRODUCTION

Preventing patient falls is vital. Falls can lengthen hospital stays and result in poor quality of life, increased costs, admission to a long-term care facility, serious physical injuries, and even death.

Falls are the most common adverse events reported in U.S. hospitals. As many as 15% of hospitalized patients fall at least once during their hospital stay, and inpatient falls lead to injury in up to 33% of cases.

Fall prevention requires cooperation and coordination among caregivers. While some aspects of fall prevention care can be standardized, others must be tailored to each patient’s specific risks. Good fall prevention requires teamwork, operational practices that promote good communication, and individual expertise.

PURPOSE/OVERALL GOAL

This module outlines measures that providers can take to help prevent patient falls. It provides an overview of causes, contributing factors, precautions to take, ways to assess fall risk, and how to involve patients and families in fall prevention strategies.

The goal of this module is to eliminate – or at least greatly reduce – the instances of patient falls and the morbidity and mortality associated with them.

COURSE OBJECTIVES

After completing this module, the learner should be able to:
1. Define the main categories of patient falls
2. Describe factors that contribute to fall risk
3. Define universal fall precautions
4. Demonstrate how to assess fall risk in patients
5. Describe the importance of educating patients and families about fall prevention
DEFINITIONS

A patient fall is any unplanned descent to a lower plane with or without injury to the patient.

- The presence or absence of injury is not a factor in the definition of a fall.
- The distance to the next lower surface is also not a factor in determining whether a fall has occurred.
- All types of falls should be reported so that steps can be taken to avoid them in the future.

There are four main categories of falls: observed, assisted, unobserved, and near falls.

1. Observed Fall
   An observed fall occurs:
   - When a staff member sees a patient experience a loss of balance and land on the floor or on another object such as a bed, chair, or wheelchair
   - When a patient comes to rest on the ground (or lower plane) without intending to do so

2. Assisted Fall
   An assisted fall occurs:
   - When a staff member or a non-staff member lowers the patient to the floor (or lower plane)
   - When a patient lowers himself or herself to the floor (or lower plane) because of feeling dizzy or weak

3. Unobserved Fall
   An unobserved fall is often referred to as being “found down” or “found on the floor” and occurs:
   - When a patient is found on the floor and neither the patient nor anyone else knows how he or she came to be on the floor
   - When a patient reports that he or she has fallen; unless proven otherwise, this is considered a fall

4. Near Fall
   A near fall occurs when a patient experiences an unexpected sudden loss of balance that does not result in a fall or other injury.
   - For example, a patient may slip, stumble, or trip but is able to regain balance control, thereby avoiding a fall to a lower plane.
   - Episodes where the patient loses his or her balance and would have fallen were it not for staff intervention is a near fall.
   - Intercepted falls are near falls.
CAUSES OF FALLS

Understanding the causes of falls is a critical component in preventing them. Inpatient falls can occur because of:

- Physiologic factors
- Unexpected events
- Environmental factors
- Other factors

Physiologic Factors
Most in-hospital falls belong to this category. Physiologic causes include:

- Patient confusion
- Frequent toileting needs
- Cardiac conditions such as arrhythmias
- Neurologic conditions such as Parkinson’s disease or dementia
- Musculoskeletal factors such as arthritis, abnormal gait, or deconditioning
- Vascular conditions such as hypotension
- Visual impairment
- Metabolic abnormalities such as hypoglycemia or hypothyroidism
- Psychiatric conditions such as depression

Unanticipated Events
Unanticipated events include:

- New-onset syncope
- Seizure
- Stroke

Environmental Factors
Environmental factors include:

- Inadequate lighting
- Poorly-fitting shoes
- Loose carpet
- Slippery floors
- Lack of handrails
- Uneven stairs

Other Factors

- Medications that are thought to increase fall risk include benzodiazepines, sleep aids, neuroleptics, antidepressants, anticonvulsants, antipsychotic medication, antiarrhythmics, NSAIDs, and antihypertensives
- The use of more than four medications is associated with increased fall risk.
- A recent study of older men found that those who reported a stressful life event were 33% more likely to fall and 68% more likely to fall more than once.
CONTRIBUTING FACTORS FOR FALLS

An analysis of falls by The Joint Commission reveals certain contributing factors that you should be aware of:

- Inadequate patient assessment
- Communication failures
- Lack of adherence to protocols and safety practices
- Inadequate staff orientation, supervision, staffing levels, or skill mix
- Deficiencies in the physical environment
- Lack of leadership
UNIVERSAL FALL PRECAUTIONS

Universal fall precautions are the cornerstone of any healthcare fall prevention program.
- They are called “universal” because they apply to all patients, regardless of fall risk.
- Their focus is on keeping each patient’s environment safe and comfortable.

Implementing universal fall precautions requires:
- Training of all staff who interact with patients, regardless of whether they are clinicians
- Embedding fall prevention into a facility’s culture of care

The Institute for Clinical Systems Improvement suggests the following general guidelines:
- Familiarize the patient with the environment.
- Have the patient demonstrate call light use.
- Maintain call light within reach.
- Keep the patient’s personal possessions within patient safe reach (such as phone, water, eyeglasses, hearing aid, dentures).
- Have sturdy handrails in patient bathrooms, room, and hallway.
- Place the hospital bed in low position when a patient is resting in bed.
- Keep hospital bed brakes locked.
- Provide wheelchair assistance as appropriate.
- Keep wheelchair wheels locked when stationary.
- Keep nonslip, comfortable, well-fitting footwear on the patient.
- Use night lights or supplemental lighting.
- Keep floor surfaces clean and dry; clean up all spills promptly.
- Keep patient care areas uncluttered.
- Discontinue the use of IVs and catheters as soon as possible.
ASSESSMENT FOR FALL RISK

Assessment for fall risk should occur:
- Upon admission to the healthcare facility
- Upon transfer from one unit to another
- With a significant change in a patient’s condition
- After a fall
- At regular intervals for patients with longer lengths of stay (this can vary by unit and patient)
- Any time new medications are added to the patient’s plan of care, especially narcotic analgesics

Patients should be assessed for the following individual risk factors:
- Impaired mobility:
  - Unsteady or altered gait
  - Balance impairment
  - Inability to ambulate without assistance
  - Weakness
  - Deformity of feet
- Altered mental status:
  - Memory or cognitive impairment
  - Confusion
  - Noncompliance with instructions
- Medication effects:
  - Sedation
  - Lightheadedness
  - Bowel/bladder changes
  - Impaired balance
  - Orthostatic hypotension
- Visual impairment:
  - Blindness
  - Cataracts
  - Uncorrected blurred vision
  - Loss of visual field
- Sensory impairment:
  - Auditory impairment
  - Tactile impairment
- Impaired elimination:
  - Incontinence
  - Urgency
  - Frequency
  - Diarrhea

Also assess for environmental or medical device concerns:
- Assess the environment for items that may increase the risk for falls.
- Assess the use of medical devices such as IV poles, pumps, chest tubes, catheters, and bedside commodes.
TOOLS TO ASSESS RISK

Risk factor assessment tools evaluate various dimensions of fall risk, including:

- Fall history
- Mobility
- Medications
- Mental status
- Continence

Such tools are just one aspect of fall prevention and are meant to complement clinical judgment, not replace it.

Examples of tools to assess fall risk are:

- The Timed Get Up and Go Test
- St. Thomas Risk Assessment Tool in Falling Elderly Patients (STRATIFY)
- The Morse Fall Scale

These tools are explained in detail in the following sections.
TIMED GET UP AND GO TEST

The Timed Get Up and Go Test is a measurement of functional mobility. For this test, the person is asked to:

- Stand up from a standard chair
- Walk about 10 feet
- Turn around
- Walk back to the chair
- Sit down again

For the test:

- Individuals use their usual footwear and can use any assistive walking device they normally use, such as a cane.
- Individuals are seated with their back to the chair and their arms resting on the arm rests, with any walking aid they may use in hand.
- Timing, using either a wristwatch with a second hand or a stop watch, begins when they start to rise from the chair and ends when they once again are seated in the chair.

The normal time required to finish the test is between 7 and 10 seconds. Individuals who cannot complete the test in that time are likely to have some mobility problems, especially if they take more than 20 seconds.
## STRATIFY RISK ASSESSMENT TOOL

The following is the St. Thomas Risk Assessment Tool in Falling Elderly Patients (STRATIFY).

<table>
<thead>
<tr>
<th>QUESTION</th>
<th>YES/NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Did the patient present to the facility with a fall or has he or she fallen since admission (recent history of fall)?</td>
<td>Yes = 1</td>
</tr>
<tr>
<td>2. Is the patient agitated?</td>
<td>Yes = 1</td>
</tr>
<tr>
<td>3. Is the patient visually impaired to the extent that everyday function is affected?</td>
<td>Yes = 1</td>
</tr>
<tr>
<td>4. Is the patient in need of especially frequent toileting?</td>
<td>Yes = 1</td>
</tr>
<tr>
<td>5. Does the patient have a combined transfer and mobility score of 3 or higher?</td>
<td>Yes = 1</td>
</tr>
</tbody>
</table>

*To calculate transfer score:* Choose one of the following options which best describes the patient’s level of capability when transferring from a bed to a chair:
- 0 = Unable
- 1 = Needs major help
- 2 = Needs minor help
- 3 = Independent

*To calculate mobility score:* Choose one of the following options which best describes the patient’s level of mobility:
- 0 = Immobile
- 1 = Independent with the aid of a wheelchair
- 2 = Uses walking aid or help of one person
- 3 = Independent

*Add these two scores together for the combined score.*

Add the total score from questions 1 through 5. Risk is assessed as follows:
- 0 = Low risk
- 1 = Moderate risk
- 2 or above = High risk
# MORSE FALL SCALE

The following is the Morse Fall Scale.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>ITEM SCORE</th>
<th>PATIENT SCORE</th>
</tr>
</thead>
</table>
| 1. History of falling (immediate or previous) | No = 0  
Yes = 25 | ____ |
| 2. Secondary diagnosis (2 or more medical diagnoses in chart) | No = 0  
Yes = 15 | ____ |
| 3. Ambulatory aid | None/bedrest/nurse assist = 0  
Crutches/cane/walker = 15  
Furniture = 30 | ____ |
| 4. Intravenous therapy/heparin lock | No = 0  
Yes = 25 | ____ |
| 5. Gait | Normal/bedrest/wheelchair = 0  
Weak* = 10  
Impaired† = 20 | ____ |
| 6. Mental status | Oriented to own ability = 0  
Overestimates/forgets limitations = 15 | ____ |

*Weak gait: Short steps (may shuffle), stooped but able to lift head while walking, may seek support from furniture while walking, but with light touch (for reassurance).
†Impaired gait: Short steps with shuffle; may have difficulty arising from chair; head down; significantly impaired balance, requiring furniture, support person, or walking aid to walk.

Add the total score from items 1 through 6. Risk is assessed as follows:
- 0 = No risk for falls
- Under 25 = Low risk
- 25-45 = Moderate risk
- Over 45 = High risk
INDIVIDUALIZED CARE PLAN

Knowing which patients have risk factors for falls is important but not enough. This information must then be used to develop an individualized care plan to help prevent falls.

Care planning should match each patient's identified risks. It includes:
- Planning for any risks found on the risk factor assessment tool
- Planning around a patient's personal risks that may not have been captured by the assessment tool

The purpose of care planning is to identify specific practices that will be implemented to make it less likely that a patient will fall. A carefully written care plan:
- Helps ensure continuity of care by all staff members
- Can keep a patient safe and comfortable
- Can be used to educate the patient and family prior to discharge

The care plan is an active document. It needs to incorporate the patient's response to the interventions as well as any changes in his or her condition. There are multiple risk factors for falls, and different patients may have different combinations of risk factors. In addition, risk factors can change over time.

The Joint Commission (TJC) recommends good communication practices to identify specific areas of risk and patient-specific interventions to mitigate that risk. For example, the process may include:
- Using white boards to communicate fall risks to staff on all shifts
- Incorporating alerts, tasks, records, and prompts into the electronic medical record
- Initiating a bedside shift report with the patient that includes falls risk concerns

TJC also recommends one-to-one education of each patient at the bedside by trained health professionals using educational materials to cover:
- Fall risk and causes
- Preventive strategies
- Goal setting
- Information review
PATIENT AND FAMILY EDUCATION

To help prevent falls, take these steps to educate the patient and family:

- Provide fall prevention literature
- Explain universal and individual fall precautions
- Explain safety interventions used
- Ensure understanding of and compliance with instructions
- Document education in the patient’s medical record

For discharge planning, consider the following:

- Suggest nutrition counseling if appropriate
- Suggest exercise such as tai chi, yoga, and physical therapy if appropriate
- Encourage reporting to the physician any weakness, dizziness, medications, and “almost falls”
- Suggest an assessment and modification of the home environment
- Provide instructions following a fall in the home
CONCLUSION

Preventing falls is not easy, but it is vital to good patient care. In addition to taking appropriate universal fall precautions, you should use assessment tools to identify risk factors and also assess each patient’s individual risk that might not have been captured with the tool.

In addition, reporting and analyzing incidents of falls can help strengthen your facility’s falls prevention initiatives.

REFERENCES: