Don’t Fall for That!

A Multidisciplinary Approach to Fall Prevention, Assessment, and Intervention for the Care of Older Adults

Chelsea Rick, DO | Instructor of Medicine, Division of Geriatrics, Vanderbilt University Medical Center

Aug. 24, 2022

www.Qsource.org

Qsource

Objectives

- Impact of Falls in the PALTC setting
- Recognition of modifiable risk factors for Falls
- Using data to drive falls reduction strategies
- Case Study: Resident with an Unwitnessed Fall with Injury
- Using Root Cause Analysis to guide change improvement
- Interventions to address common factors associated with falls

No Financial Disclosures.

What is Considered a Fall

- A **fall** is an unintentional change in position coming to rest on the ground, floor, or onto the next lower surface.
- A fall **may be witnessed or unwitnessed.**
- An **intercepted fall** occurs when the resident would have fallen if they had not caught themselves or had not been intercepted by another person.

What is Not Considered a Fall

- Falls are not a result of an overwhelming external force.
- A change in position due to stroke, seizure, or other major intrinsic event is not considered a fall.
- An anticipated loss of balance during intentional challenging such as therapeutic balance training is NOT considered a fall.

Definitions of Post-Fall Injury

- No injury: No evidence of any injury noted on physical assessment, no complaints of pain or injury, and no change in behavior is noted after the fall
- Injury (except major): Skin tears, abrasions, lacerations, superficial bruises, hematomas, and sprains, or any fall-related injury that causes pain
- Major injury: Bone fractures, joint dislocations, closed head injuries with altered consciousness, and subdural hematoma

Impact of Falls in Post-Acute and Long Term Care

- Falls are considered a *geriatric syndrome*.
- Every year, 1 in every 3 adults ≥ 65 years of age falls.
- 75% of nursing home residents will fall each year.
- Residents may experience 2 to 3 falls annually on average.
- One-third of falls among nursing home residents results in an injury.
- Fall-related injuries are not a common cause of death in older adults; however, *complications* resulting from falls are the **leading cause of death from injury** in adults ≥ 65 years old.

Qsource

Impact of Falls in Post-Acute and Long Term Care

- Falls are associated with functional decline and higher care needs
- Progressive loss of independence with recurrent falls
- Fear of falling contributes to cycle of deconditioning and recurrent falls
  - 60% of fallers reported moderate activity restriction
  - 15% reported severe restriction in activity

Impact of Falls in Post-Acute and LTC (cont.)

- Falls are costly in every way—for staff, administration, and, most importantly, the resident!
- *"Percentage of long-stay residents experiencing one or more falls with major injury"* is a long-stay quality measure used to calculate the quality measures star rating for your facility published by Centers for Medicare and Medicaid Services (CMS) and Nursing Home Compare.
- Falls are a major driver of Emergency Department utilization and hospital admissions– both short-stay and long-stay quality measures.
- Falls and related injuries are a frequent cause of litigation in the long-term care setting.

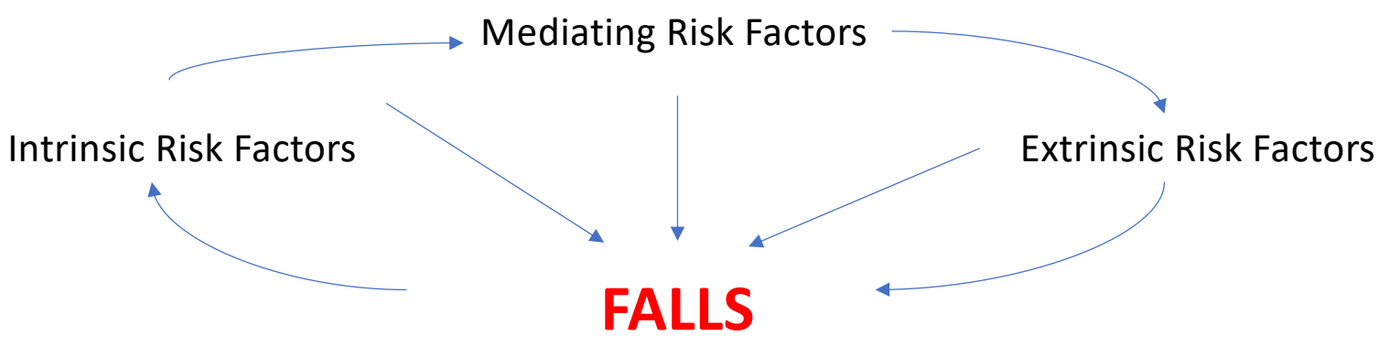
It is possible to significantly reduce the ***frequency*** of falls and ***severity of fall-related injuries*** through prevention and targeted intervention!

Recognition of Risk Factors for Falls

- The strongest predictor of a future fall is a **history of falls**.
- Record **"Recent Fall" in the problem list** of a patient with a fall within the last 6 months!
- Most falls in the post-acute and long-term care setting are **anticipated physiologic** falls.
- **Document risk factors** for falling in the resident's record and tailor care planning and interventions to mitigate fall risk.
- **Communicate risk** status during change of shift report; inform all staff who will encounter patient for need for frequent rounding.

Recognition of Risk Factors for Falls

Falls are often the result of a
complex interaction of intrinsic, extrinsic, and mediating factors.



Qsource

Intrinsic Risk Factors for Falls

- Age > 80 years
- Acute illness
- Exacerbation of chronic illness
- Low Vision
- Arthritis
- Balance deficit
- Cognitive impairment
- Impulsivity, Limited insight
- Diabetes
- Dehydration
- Depression
- Electrolyte imbalance
- Fall history
- Fear of falling
- Gait Instability
- Medication effects or side effects
- Poor sleep quality
- Muscle weakness
- Peripheral neuropathy
- Parkinson's disease
- Foot disorders

(cont.)

Intrinsic Risk Factors for Falls (cont.)

- History of stroke, TIAs
- Vitamin D deficiency
- Anemia
- Female sex
- Chronic pain
- Urinary incontinence or urgency
- Hearing loss
- Orthostatic hypotension, Postural control
- Low BMI

Extrinsic Risk Factors for Falls

- Recent hospitalization
- Environmental Factors
  - Slippery surfaces
  - High-gloss surfaces with glare
  - Poor lighting
  - Cords, clutter
  - Bed linens hanging off bed
  - Unlocked beds, wheelchairs
  - Out of reach access to needed items like phone, remote, glasses, water
- Inappropriate Footwear
- Multifocal Lens
- Improper use of assistive devices
- High patient to staff ratios
- Unfamiliar staff to persons living with dementia

A Systematic Approach to Fall Prevention

Universal Precautions

- Familiarize resident with the environment, have resident demonstrate call light use, make sure call light is within reach, keep patient areas free of clutter

Risk Factor Assessment

- Perform standardized Fall Risk Factor Assessment (MORSE, STRATIFY, etc.) The overall risk score is less important than identifying the contributing factors which lead to increased risk (i.e. mental status, history of falls)

Tailor Prevention Strategies

- Tailor prevention strategies to the specific findings of the assessment. Use care conferences to ensure risk factors are sufficiently addressed and strategies documented.

We ALL have a role in mitigating fall risk among residents!

- Nurse: **fall risk assessment on admission**, patient education, communication of concerns to provider, ensuring adequate hydration/nutrition, encouraging mobilization of the patient, delivery of person-centered care
- CNA: **prompted toileting**, safe turnover in bed, ensuring level of assistance necessary for transfers, **placing needed items within resident reach**
- Housekeeping: keeping surfaces clean and dry, removing debris from room, **notifying staff of environmental hazards**
- Provider: comprehensive geriatric assessment including fall history, functional assessment, geriatric review of systems, and **medication review to reduce potentially inappropriate medications**

We ALL have a role in mitigating fall risk among residents! (cont.)

- Physical Therapy: evaluate needs for assistive devices, note changes in functional status, plan for **rehabilitation/exercise regimen**, **address balance/gait impairment**
- Social Worker/Case Manager: **communicate with family/caregivers to understand level of social support**, lead care plan conferences, facilitate communication with community services and supports
- Facilities Engineer: **address environmental hazards**, install safety modifications, proper call light function
- Administration: **supporting staffing needs** to ensure safe resident: staff ratios, building design- reduction of environmental risk factors

Create a culture that prioritizes fall prevention in service to our residents!

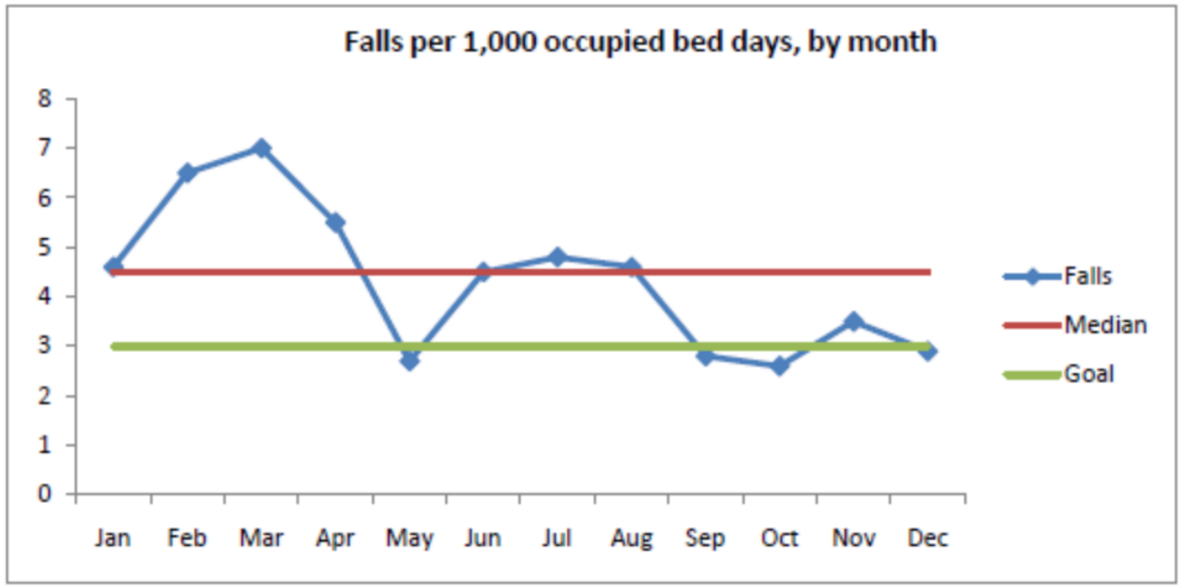
A Multidisciplinary Approach to Fall Prevention

- Establishing and utilizing a systematic approach to resident safety helps facilities comply with CMS regulations.
- Consider having a separate Falls Committee to serve as an **implementation team** and include direct care **"champions"** from various disciplines to lead training and education efforts on best practices system-wide.
- Obtain buy-in from key stakeholders (direct care workforce, administrators, patient/family) to enhance the culture of continuous improvement.
- Integrate fall prevention into ongoing workflow: Purposeful rounding!
- Committee should conduct environmental surveillance, **define target goal, and audit outcome measures**.

Falls among residents represent a unique opportunity for the interdisciplinary team to utilize individual and systems-level data to pursue a **culture of safety and continuous improvement**.

Using Data to Drive Quality Improvement

- Use *systems-level* baseline data to determine your **median fall rate** and monitor success of ongoing prevention processes.
- Further delineate data trends to analyze when falls are occurring and under what circumstances to provide ideas for *small, cyclical tests of change* to reduce fall rate.
- Monitor for effectiveness and modify interventions when necessary.



Qsource

Using Data to Drive Quality Improvement (cont.)

- Use *individual-level* data from incident reports to target the highest-risk residents and tailor interventions accordingly.
- Use "close calls" as learning opportunities.
- Communicate and document modifications to fall prevention plan in care conferences after each subsequent fall.

Case Study of Mrs. B

- Mrs. B is a 87 year old female admitted to your facility.
- She has had Alzheimer's disease for approximately 5 years and has been cared for by her husband and daughter at home. Over the past several months, her family has found it increasingly difficult to care for her at home due to worsening agitation and insomnia.
- She was recently hospitalized for a fall at home and found to have a UTI (completed treatment).
- Past Medical History: diabetes mellitus with peripheral neuropathy, history of TIAs, hypertension, osteoarthritis, depression, urinary incontinence, macular degeneration, and a history of falls

Case Study of Mrs. B (cont.)

- Past Surgical History: left knee replacement, hysterectomy
- Social History: retired teacher, married to Mr. B, mother to 2 children, Christian faith, non-smoker
- Medications: metoprolol succinate 25mg daily, losartan 25mg daily, aspirin 81mg, linagliptin 5mg daily, citalopram 20mg daily, gabapentin 300mg nightly, seroquel 25mg nightly

Case Study of Mrs. B (cont.)

What are you **initially worried** about with this resident?

What **intrinsic or extrinsic risk factors** are you noticing?

Case Study of Mrs. B (cont.)

What prevention strategies could be considered for this resident?

Environmental and equipment

- reduce clutter, keep clear pathways.
- provide adequate lighting at night.
- add labels/pictures to help her locate the bathroom and her room.
- provide frequent reassurance and orientation to facility.
- consider hip protectors

Case Study of Mrs. B (cont.)

Gait and mobility

- screen resident's ability to transfer and ambulate safely to determine level of staff assistance needed and if further evaluation is necessary.
- order an evaluation by OT/PT.

Medications

- ask provider to review all medications, their possible interactions and side effects.
- ask consultant pharmacist to review medications.
- implement sleep hygiene measures immediately (no caffeine after 4 pm, limit daytime napping, provide comfort measures at bedtime, offer food or snack, begin an individualized toileting program at night)
- allow her to be up at night with supervision.

Case Study of Mrs. B (cont.)

Anxiety, agitation and unsafe behavior

- implement general behavior management strategies.
- move closer to nurses station.
- use adequate night light.
- leave door open at night for regular checking by staff who walk past.
- provide frequent reminders about call bell.
- conduct trial use of a change in position/pressure alarm or a room sensor.
- use a low bed and mat.
- provide comfort measures; reassure frequently.
- learn about her culture, likes and dislikes and religious preference.
- know at least three things that bring her comfort.
- develop a toileting schedule and include an evaluation of bathroom safety and possible beside commode use.

Case Study of Mrs. B (cont.)

Pain management

- evaluate resident's pain level using appropriate pain scale for residents with dementia.
- give a trial analgesic if appropriate.

Case Study of Mrs. B (cont.)

- Mrs. B has been at your facility for 3 days and has slept only 3 hours per night. She is extremely restless and anxious and often cries out for her husband. She constantly wants to get up from her chair or bed.

- Later one night, Mrs. B was **found on the floor between her bed and the bathroom door**. Her undergarments were soiled and she continued to cry out for her husband. She had two obvious skin tears to the forearm noticed upon walking into the room and bruising to lower extremities. She appeared to be in physical pain.

Case Study of Mrs. B (cont.)

What immediate interventions would you institute for this resident?

Complete assessment of the resident's condition including head-to-toe examination:

- musculoskeletal injuries.
- head and neck injuries.
- skin changes.
- mental status changes.
- changes in level of consciousness.

Case Study of Mrs. B (cont.)

What immediate interventions would you institute for this resident?

Obtain and monitor the following:

- Documentation of neurologic checks since the resident was found on the floor, unwitnessed.
- Postural/ Orthostatic vital signs (may do lying to sitting only if limited due to injury) since the resident is on cardiovascular medications for hypertension and has a history of frequent falls.
- Blood glucose level since the resident has a diagnosis of diabetes.

Case Study of Mrs. B (cont.)

- Upon further examination, Mrs. B was noted to have physical exam findings consistent with a **left hip fracture** and was sent to the hospital via EMS for evaluation after family was notified.

Falls with Major Injury warrant a formalized Root Cause Analysis in addition to standardized incident documentation/ post-falls assessment!

Because falls can be more complex than they first appear, mapping out the sequence of events prior to and after an event can help uncover root causes and associated performance gaps.

Using Root Cause Analysis after Fall

- Root cause analysis (RCA) is a powerful systems analysis tool that informs performance improvement and drives purposeful change to prevent harm.
- Beyond offering a tool for mitigating harm, RCA helps fulfill federal quality assurance and performance improvement (QAPI) requirements.
- Using a systems thinking approach to the RCA process acknowledges the importance of organizational culture as well as a culture of safety over individual blame, which enhances resiliency and the effectiveness in preventing adverse incidents from occurring.
- Identification of root causes is not the ultimate outcome—creating sustainable performance improvement to address such root causes is the goal.
- Staff must address root causes through purposeful change and organizational development.

Steps in Root Cause Analysis

1. Obtain initial understanding of the event
   - Create flow diagrams, sequence of event
2. Gather resources, conduct interviews, review literature, ask triage questions
   - Identify information gaps in the flow diagram to guide this step
3. Collate final understanding of the event
   - Create cause and effect diagram
4. Formulate Root Cause Statements/ Contributing Factors
   - Have an action plan for each identified statement including an identified person accountable for the action and a time frame for completion

Example Interventions for Mrs. B upon return to facility from hospital

Potential Risk Factor	Action to be Taken	Responsible Team Member
Behavioral disturbances/ impulsivity	Identify resident's comfort preferences and include in staff hand-off to reduce agitation and improve ability for unfamiliar staff to redirect behaviors. Purposeful rounding addressing toileting, pain, comfort needs, position at least every hour.	Nursing staff
Urinary Urgency	Recent UTI, functional incontinence. Implement prompted toileting schedule every 2 hours.	CNA

Example Interventions for Mrs. B upon return to facility from hospital (cont.)

Potential Risk Factor	Action to be Taken	Responsible Team Member
Unsteady gait	PT/OT to assess patient for most appropriate assistive device. Dementia likely too advanced to continue use of rollator. Will complete skilled therapy services and upon completion, will implement restorative nursing exercise plan for maintenance.	PT/OT

Example Interventions for Mrs. B upon return to facility from hospital (cont.)

Potential Risk Factor	Action to be Taken	Responsible Team Member
Footwear	Check footwear for secure fit, nonslip sole, no trailing laces. Ask relatives to supply safer replacement or supply new slippers from ward stock. Slipper socks in bed.	Nurse, Family
Unable to use call bell to report needs	Consider alternatives for patients unable to recall use of call bell, e.g., use brass bell, move bed in sight or earshot of nurses' station (patient likely to call husband's name).	DON
Bed height	Ensure bed is at the lowest possible height unless this would reduce mobility or independence. Consider use of special low bed.	All team members.

Summary

- It is possible to significantly reduce the **frequency** of falls and ***severity of fall-related injuries*** through prevention and targeted intervention!
- Falls are often the result of a **complex interaction of intrinsic, extrinsic, and mediating factors**.
- Because falls can be more complex than they first appear, mapping out the sequence of events prior to and after an event can help **uncover** root causes and associated **performance gaps**.
- Multidisciplinary interventions guided by Post-Fall Assessments or formal RCA processes can be addressed during care planning to reduce recurrence of falls.

Connect With Us

Chelsea Rick, DO

Instructor of Medicine
Division of Geriatrics
Vanderbilt University Medical Center

Email: chelsea.rick@vumc.org

(662) 871-1519

Facebook
www.facebook.com/QsourceLiveWell

Twitter
www.twitter.com/Qsource

LinkedIn
www.linkedin.com/in/qsource-healthcare-consultants