Reducing the Risk of Resident Falls in Senior Care

2016
Every 20 minutes, an older adult dies from a fall in the United States, and many more are injured.

Objectives

At the conclusion of this program, you should be able to:

- Identify four risk factors associated with resident falls
- Identify four resident fall prevention interventions
- Describe effective documentation of a resident’s fall
Fast facts: Physiological changes in normal aging

Aging ≠ chronological age

Aging changes might be affected by:

- Gender
- Genetics
- Underlying medical conditions
- Lifestyle (e.g., exercise, social engagement, nutrition, habits)
Fast facts: Physiological changes in normal aging

- Bladder: decreased capacity/delayed sensation to urinate (incontinence, urgency)
- Bones/muscles: decreased mass and tone
- Joints: degenerative changes
- Cardiovascular: heart rate slows, blood vessels become less elastic, reduction in cardiac reserve
- Gastrointestinal: altered motility
- Hepatic: altered metabolism of medications
- Pulmonary: impaired gas exchange

- Vision: reduced color and night vision
- Hearing: reduced acuity, hearing loss
- Neurological: parts of brain shrink, which may affect cognitive function (e.g., memory loss and complex processing functions); blood vessels become tighter and thinner; spinal cord changes lead to reduced reflexes
- Renal: declined renal blood flow
- Skin: loss of tone and elasticity

CDC and CMS nursing home resident data snapshot

- 85% ≥ 65 years; 42% ≥ 85 years
- Alzheimer’s/ dementia: 50%
- Pain (mild to severe): 35%
- Depression: 49%
- Diabetes: 32%

- Incontinence: 35%
- 4–5 activities of daily living (ADL) impairments: 60%
- Severe impairment with five ADLs (bathing, dressing, walking, toileting, transferring) and cognitive impairment: 15%

2014 (% of total resident population)

<table>
<thead>
<tr>
<th>Falls</th>
<th>16</th>
</tr>
</thead>
<tbody>
<tr>
<td>1+ falls</td>
<td>11</td>
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<tr>
<td>falls with injury</td>
<td>5</td>
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</tbody>
</table>

The impact of a fall

<table>
<thead>
<tr>
<th>Mrs. L</th>
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<td>Died 16 days later</td>
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Fall definition (CMS)

“Unintentionally coming to rest on the ground, floor, or other lower level but not as a result of an overwhelming external force.”

Falls include:

- Intercepted falls (resident lost balance but did not fall because of staff, family, or resident intervention)
- Fall without injury
- Resident found on the floor/ground (assumed to be a fall unless additional information proves otherwise)
- Reported fall by observer, family, or resident

Multifactorial fall cycle

Resident fall risk factors

Fall: root cause analysis (RCA)

Medications

Resident fall-reduction plan

Environmental hazards
Resident fall risk factors

Fall: RCA

Medications

Fall history
- Impaired cognition
- Impaired vision and hearing
- Impaired gait and balance
- ADL impairments
- Chronic pain
- Vitamin D deficiency
- Low BMI
- Comorbidities

Resident fall-reduction plan

Environmental hazards
Multifactorial fall cycle

Resident fall risk factors

Examples of comorbidities:
- Anemia
- Arthritis
- Cardiac arrhythmias
- Dehydration
- Depression
- Diabetes
- Orthostatic hypotension
- Incontinence
- Vertigo

Fall: RCA

Medications

Residents fall-reduction plan

Environmental hazards
Multifactorial fall cycle

Higher risk for falls and injury:
- Fall history: ≥1 fall
- Serious injury (e.g., fracture or brain injury)
- Signs of osteoporosis
- Bleeding (use of anticoagulants, regular-dose aspirin, or other NSAIDs; or bleeding disorders)
Multifactorial fall cycle

- Medications
  - Polypharmacy
  - Psychoactives
  - Antipsychotics
  - Anticoagulants
  - Narcotics
  - Others

- Resident fall risk factors
- Environmental hazards
- Fall: RCA
- Resident fall-reduction plan
Multifactorial fall cycle

- Environmental hazards
  - High bed height
  - Spills
  - Clutter
  - Poor lighting
  - Assistive devices
  - Unsafe footwear
  - Mobile furniture
  - Lack of or inadequate use of eyeglasses/lenses

- Resident fall risk factors
- Medications
- Resident fall reduction plan
- Fall: RCA
# Environmental hazards checklist

<table>
<thead>
<tr>
<th>Unit</th>
<th>Date:</th>
<th>Room Number:</th>
<th>Notes:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Signature:</strong></td>
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<td></td>
</tr>
<tr>
<td>1. Paths</td>
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</tr>
<tr>
<td>Remove unused equipment (canes/walkers).</td>
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<tr>
<td>Instruct SW to ask family to remove unused items.</td>
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<tr>
<td>If bedside commode is unused, ask staff to remove it.</td>
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<tr>
<td>With resident's permission, rearrange room to clear paths.</td>
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<tr>
<td>Instruct staff to keep paths clear.</td>
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<tr>
<td>Instruct staff to keep overbed table across bed.</td>
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<tr>
<td>Remove unused items from bathroom and store elsewhere.</td>
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<tr>
<td>2. Furniture</td>
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<tr>
<td>Instruct nursing staff and housekeepers to keep bed in locked position except during care or cleaning.</td>
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<tr>
<td>Replace unstable bed with a stable one.</td>
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<tr>
<td>Push bed to wall (check local and state fire codes).</td>
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<tr>
<td>Remove all cardboard, lightweight, or unstable furniture.</td>
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<tr>
<td>Instruct SW to ask family to remove or replace unstable items.</td>
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<tr>
<td>3. Easy Access</td>
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<tr>
<td>Arrange room so that items are within resident's reach.</td>
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<tr>
<td>Instruct staff to keep items within arm's length of patient.</td>
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<tr>
<td>Instruct staff to place cane, walker, or w/c within safe reach.</td>
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<tr>
<td>4. Floor</td>
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<tr>
<td>Instruct staff to wipe up all spills quickly.</td>
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<tr>
<td>5. Foot Care and Footwear</td>
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<tr>
<td>Ask nurse for podiatry consult.</td>
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<tr>
<td>Instruct staff and resident to use specific shoes/slippers.</td>
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<tr>
<td>Instruct staff and resident to use nonskid socks.</td>
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<td></td>
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<tr>
<td>Instruct SW to ask family to provide safe footwear.</td>
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</tbody>
</table>

Multifactorial fall cycle

- Assess multifactorial risks
- Individualize and standardize plan based on assessment
- Implement plan
- Reassess

Resident fall-risk factors

Medications

Environmental hazards

Resident fall-reduction plan

Fall: RCA
Fall prevention: standardized interventions checklist

Be aware of the care areas trigger (CAT) logic for falls, including wandering, fall history, balance problems during transitions, use of antianxiety and antidepressant medications, and use of trunk restraints.

Use a risk assessment tool to identify and assess multifactorial resident fall risks and develop a fall prevention plan.

Reassess your fall prevention plan quarterly and when residents have:

- Changes in mental status or medications
- Recent falls (conditions related to)
- Changes in medical conditions
- Readmissions

Fall prevention: standardized interventions checklist

Maintain a safe environment:

- Place bed in a low position.
- Provide adequate lighting and minimize glare.
- Avoid clutter in common pathways.
- Avoid or lock mobile furnishings.
- Encourage residents to wear well-fitting, appropriate footwear.
- Have a “quick response” for spills, wet floors, and uneven surfaces.
- Keep wheelchairs in a locked position.

Put up fall signage in appropriate areas (e.g., green leaf or other signage).

Perform regular preventive maintenance on assistive devices (e.g., wheelchairs and walkers).

Use bed alarms, lifts, floor mats, and protective devices based on each resident’s needs and circumstances.
Fall prevention: standardized interventions checklist

Educate residents and families about fall prevention:

• Reinforce education with routine verbal cues.
• Document the education in the medical record.
• Written information is good, but direct staff communication with the resident and family is better.

Show residents how to walk and transfer out of bed safely.

Provide exercise (e.g., balance, gait, and strength) and activity programs.

Offer individualized interventions, such as:

• Instruction on safe use of wheelchairs, canes, and walkers.
• Rehab evaluations.
Other Things You Can Do to Prevent Falls

- Exercise regularly. Exercise makes you stronger and improves your balance and coordination.

- Have your doctor or pharmacist look at all the medicines you take, even over-the-counter medicines. Some medicines can make you sleepy or dizzy.

- Have your vision checked at least once a year by an eye doctor. Poor vision can increase your risk of falling.

- Get up slowly after you sit or lie down.

- Wear shoes both inside and outside the house. Avoid going barefoot or wearing slippers.

- Improve the lighting in your home. Put in brighter light bulbs. Florescent bulbs are bright and cost less to use.

- It’s safest to have uniform lighting in a room. Add lighting to dark areas. Hang lightweight curtains or shades to reduce glare.

- Paint a contrasting color on the top edge of all steps so you can see the stairs better. For example, use a light color paint on dark wood.

Fall prevention: Standardized interventions checklist

- Schedule frequent resident rounds
- Orient residents to the surroundings.
- Communicate risk factors at the time of shift changes.
- Respond to calls for assistance promptly.
- Avoid restraints.
- Conduct proactive fall risk-related medication assessment.

Offer individualized interventions. For example:

- When feasible, relocate high-risk residents near nurses’ stations.
- Make scheduled offerings of bathroom trips.
- Evaluate/consider modifications related to comorbidities and individualized fall risk factors.
Standardized reminders for staff about fall prevention

**HEAR ME**

<table>
<thead>
<tr>
<th>Hazards in the environment</th>
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<tbody>
<tr>
<td>Educate residents/families</td>
</tr>
<tr>
<td>Anticipate residents’ needs</td>
</tr>
<tr>
<td>Round frequently</td>
</tr>
<tr>
<td>Materials and equipment</td>
</tr>
<tr>
<td>Exercises and ambulation</td>
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Break the fall cycle

**Mrs. M** 85 years old.

Admitted 2 days ago.

Daughter tells the CNA that “Mom fell at home four times in the past 6 months, usually at night when going to the bathroom. She broke her wrist in the first fall. Mom doesn’t want to wet the bed, but is so afraid of falling again. She is so frail and unsteady on her feet.”

Mrs. M did not have green leaf signage (denoting high risk of falling) next to her name.
What approach should the CNA take?

1. Assure Mrs. M’s daughter that the facility is taking precautions to prevent falls and ensure safety.

2. Place a green leaf designation next to Mrs. M’s name.

3. Discuss the daughter’s concerns with the team leader.

4. Do nothing because all new admissions are at high risk for falls until a formal resident assessment instrument (RAI) review is completed.
Culture of safety: interdisciplinary team

- Resident fall risk factors
- Fall risks
- Fall plan
- Resident fall-reduction plan
- Medications
- Environmental hazards
- Fall: RCA
- EVAL
- CAA

CAA: care area assessment; IDT: interdisciplinary team; EVAL: evaluation
High risk for fall screen

1. History of falls
2. Impairments
3. Abnormal blood pressure
4. Impaired gait and mobility
5. Medications (changes in type or dose)
6. RAI
Problem, cause, contributing risk factors, team evaluation, plan

Provider: underlying conditions

Nurse/CNA: incontinence, ADL impairments

Pharmacy: medications related to falls

Physical therapist (PT), occupational therapist (OT), dietitian: interventions

Fall plan interventions, environment of care (EOC) review
PT/OT ADL recommendations:
- Improve lower body strength through exercise
- Use progressive resistance exercises

Pharmacy/physician:
- Analyze and adjust medications for residents with fall risk

Nutrition:
- Provide a diet high in calcium and vitamin D (use a supplement if vitamin D is low)

Nursing:
- Perform rounds every hour to check the four Ps
- Engage volunteer visit program
- Place bed near bathroom
- Ensure eyeglasses are within reach
- If resident has UTI, increase fluids
- If resident is high risk, use protective devices per protocol
The impact of documentation

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**Response**

Before moving, assess vital signs, pain, swelling, bruising, and changes in functional and neurological status to rule out significant injury.

Be alert for fractures and traumatic brain injuries.

Provide emotional support for the resident.

Notify the team leader, physician, and family.

Conduct safety huddle/incident report/RCA.

**Chart documentation**

Document assessments, interventions, and notifications; make factual note of what happened, where the fall occurred, factors at time of the fall, and environmental condition.

Note resident’s pre- and postfall mental and physical status.

Include resident’s description of what happened.
Contributing factors

- What? (sequence of events)
- Where? (location, environment description)
- Why? (contributing factors; review risk factors)
- How? (factors to prevent future falls)

Risk strategies

- Revise fall plan based on contributing factors
- Provide emotional support for resident and family
- Address resident’s fear of falling again
- Study aggregate findings: quality patterns/trends
- Develop lessons learned based on patterns
Lessons learned from RCAs

Why falls occur

- Newly admitted or readmitted residents are at higher risk for falls
- Certain medications increase the risk of falls
- Fall plan: one-on-one toileting assistance was not executed
- Slow response to resident’s call light
- Environmental hazards

Risk-reduction strategies

- Conduct standard fall interventions on admission with more frequent rounding; prioritize fall assessment and team evaluation when resident has fallen within past 6 months
- Develop medication triggers for pharmacy/doctor review
- Implement handoff checklist
- Engage volunteer visitation program
- Create staff communication backup plans to expedite response times
- Use EOC checklist tool
- Document factually
Key points: fall prevention program

1. Screen for fall and injury risk and CAT triggers for falls (#11)
   - Standard fall precautions on new admissions
   - Fall history on admission: promptly schedule IDT
   - Complete comprehensive risk assessment: functional and cognitive limitations, comorbidity, and medication analysis

2. IDT care area assessment
   - Assess multifactorial risk indications for falls: vision/hearing impairments, postural hypotension, foot pain, fear of falling, polypharmacy, vitamin D deficiency, and comorbidities
   - Individual cause and effect: basis for care plan interventions

3. Criteria for fall risk reevaluation by IDT
   - Change in resident’s mental condition, medical condition, or medication types or dosages
   - Readmission
   - Following a fall
   - Quarterly
Key points: fall prevention program

4. Provide education about fall risks and prevention
   - Teach safe use of assistive devices, safety strategies for walking and transfers, and proper use of the call light
   - Reinforce education with verbal or written reminders

5. Standardize fall prevention interventions
   - Use HEAR ME reminder, provide adequate lighting, put bed in low position, place call light within reach, ensure safe footwear, avoid restraints, encourage proper use of eyeglasses, exercise/activity
   - Four Ps: potty, pain, position, placement
   - Fall signage denoting high risk for falls
   - Standardized team hand off checklist

6. Customize interventions for high-risk residents
   - Environmental adaptations
   - Supervision/increase rounds
   - Protective devices
   - Rehab referral
   - Scheduled toileting
Key points: fall prevention program

After a fall
- Nurse evaluation before resident is moved
- Assess vital signs, pain, mobility, bruising, swelling, and functional and neurological status
- Be alert for fractures, brain injuries, and bleeding
- Notify physician and family

Documentation
- What, where, why, and how
- Environmental status pertinent to location of fall
- Mental and physical status pre- and postfall
- Resident’s explanation about how and why fall occurred
- Assessments, interventions, and notification

RCA (quality data) by IDT postfall
- Engage in a safety huddle; create an incident report; perform RCA
- RCA analysis
- Changes in care plan that reflect intervention to reduce fall risk factors
Successful fall program

- Culture of safety
- Communication across the team
- Collaborative team (staff/resident/family)

- Celebrate success; collect quality data
- Clinical/environmental assessments and interventions
- Critique fall root causes; update plan
Resources


Resources

RISK RESOURCES
Falls and Fall Risk in Senior Care

Agency for Healthcare Research and Quality

Canadian Patient Safety Institute
- Falls (Acute Care, Long-Term Care, and Community Settings) — www.patientsafetyinstitute.ca/en/Topic/Pages/Falls.aspx

Centers for Disease Control and Prevention
- Falls in Nursing Homes — www.cdc.gov/homeandrecreationalsafety/falls/nursing.html

Home Health Quality Improvement
- Best Practice Intervention Packages for Fall Prevention — www.homehealthquality.org/Education/Best-Practices.aspx

Institute for Healthcare Improvement
- Transforming Care at the Bedside How-To Guide: Reducing Patient Injuries from Falls — www.ihi.org/resources/Pages/Tools/TCAHHowToGuideReducingPatientInjuriesfromFalls.aspx

Managed Health Care Connect
- Strategies for Reducing Falls in Long-Term Care — www.managedhealthcareconnect.com/article/strategies-for-reducing-falls-long-term-care

More resources on falls and fall risk are available on MedPro’s website at www.medpro.com/rm-resource-lists