“Falls & Fall Reduction”

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Half to three-quarters of nursing home residents fall each year.¹ Each year, a typical nursing home with 100 beds reports 100 to 200 falls. Many falls are unreported.²

About 10% to 20% of nursing home falls cause serious injuries; 2% to 6% cause fractures.³ Falls result in disability, functional decline and reduced quality of life. Fear of falling can cause further loss of function, depression, feelings of helplessness, and social isolation.³

Common Causes of Falls

- Impaired strength, balance, gait, vision & cognition
- Environmental hazards - wet floors, poor lighting, incorrect bed height, and improperly fitted or maintained wheelchairs.³,⁴
- Medications – Psychoactive medications, e.g., sedatives & anxiolytics
- Poor foot care/ poorly fitting or improper shoes
- Improper use of walking aids

Fall Prevention

- Use a multifactorial approach to address multiple etiologic factors
- Engage the interdisciplinary team

Interventions include:

- Education – staff & resident
- Fall risk assessment – initial & reassessment after a fall
  - Sensory impairment: recent eye exam, glasses, hearing evaluation, check ears for cerumen, hearing aids, etc.
  - PT/OT gait & balance evaluation
  - Toileting problems/ develop toileting program
  - Reassessment – review the circumstances of a fall; were there any witnesses to corroborate?
    - Screen for acute infection, dehydration, any other illness
  - Screen for alcohol/substance abuse
  - Review nursing home documentation/ tools: MDS, fall risk assessment tool, post-fall evaluation tool
- Medication management - potential risks/ benefits
  - Minimize use of tranquilizers, sedatives, sleeping pills and antidepressants or antipsychotics, as appropriate⁵
  - Consider Vitamin D supplementation ⁶,⁷
- Proven or suspected deficiency
- Abnormal gait/balance or otherwise at risk for falls
- 800 IU to 2000 IU of vitamin D daily; goal to maintain vitamin D levels at least 30 ng/mL
- Instruct patient and staff to mitigate postural hypotension if on diuretics and/or antihypertensives

- Environmental factors - grab bars/ handrails, adding raised toilet seats, lowering bed position
  - Ensure that patient is wearing supportive footwear that fit, with thin rubber soles. Encourage patient to pick up his/her feet when walking – don’t shuffle.
  - Check for & remove environmental hazards – clutter, inadequate lighting, glare, non-skid rugs, etc.
  - Does patient need a mobility aid?
  - If patient has a mobility aid ordered, are they using it (correctly)? Is it in good working order? Was it custom-ordered, or donated? Is it properly sized?
  - Bed alarms
  - Hip pads (to prevent/reduce fractures)

- Exercise to improve balance, strength & physical function
- Routine use of restraints does not lower, and may increase falls & fall-related injuries

References


Useful Links

**CDC Falls in Nursing Homes**

**AGS/BGS Clinical Practice Guideline: Prevention of Falls in Older Persons** (special sections to address nursing home residents & cognitive impairment)
[http://www.medcats.com/FALLS/frameset.htm](http://www.medcats.com/FALLS/frameset.htm)

**AMDA Clinical Corner: Falls and Fall Risk** (articles, guideline, tools & resources)

**Health In Aging: Falls Prevention**

**Updated Beers List (American Geriatric Society 2012)**
Falls in the Elderly  (Fuller, George. American Fam Physician. 2000 Apr 1;61(7):2159-2168)
JAGS Algorithm:

1. Older person encounters health care provider

2. Screen for fall(s) or risk for falling (See questions in sidebar)

3. Answers positive to any of the screening questions?

4. Does the person report a single fall in the past 12 months?


4. No → 8.

6. Evaluate gait and balance

7. Do abnormalities in gait or unsteadiness identified?


7. No → 8.

8. Any indication for additional intervention?

8. Yes

8. No

9. Initiate multifactorial/multicomponent intervention to address identified risk(s) and prevent falls:

1. Minimize medications
2. Provide individually tailored exercise program
3. Treat vision impairment (including cataract)
4. Manage postural hypotension
5. Manage heart rate and rhythm abnormalities
6. Supplement vitamin D
7. Manage foot and footwear problems
8. Modify the home environment
9. Provide education and information

Sidebar: Screening for Fall(s) Questions

1. Two or more falls in prior 12 months?
2. Presents with acute fall?
3. Difficulty with walking or balance?