

FALL PREVENTION: ROLE OF CAREGIVERS/STAFF OF ALF/ADC

INCIDENCE

- Most falls occur indoors in the older adult's own environment during functional activities.
- Repetitive falling predisposes an older adult to deficits in activities of daily living (ADLs) and is at a higher risk for hospitalization, further disability and death.
- Estimates of falls reveal that 30% of community-dwelling older adults over the age of 65, 40% of older adults over 80, and greater than 60% of institutionalized older adults fall every year (Fleming, Matthews, Brayne, 2008).
- These rates may be an underestimation, as many falls do not result in injury or necessitate medical attention, and many older adults fear institutionalization or a loss of independence thereby under-reporting.
- Despite these statistics, falling is not a normal part of aging.
- The good news is that 2/3 of falls are potentially preventable. Be Aware: despite all precautions, not all falls are preventable. Studies show that falls can be reduced as much as 60%. It's not perfect, but it's a lot better (<https://nihseniorhealth.gov>).

CONSEQUENCES OF FALLS

- Fractures: most commonly—wrist, shoulder, spine (compression), hip.
- Soft tissue injuries requiring immobilization.
- Possibility of head injury.
- Fear of falling, which may predispose an older adult to lose confidence and decrease activity causing further disability secondary to inactivity/deconditioning.

RISK FACTORS

Falls are commonly a result of intrinsic (internal) and extrinsic (external) factors (Berg & Cassells, 1990).

- **Intrinsic Factors** include characteristics of the individual that may affect balance and stability: For example:
 - Normal and pathological changes in vision, hearing, strength, cognition, vestibular/proprioceptive systems, difficulty walking, pain, postural instability, complaint of dizziness, orthostatic hypo-tension, nocturia, urinary tract infections, metabolic disorders, dehydration, anemia, cardiopulmonary disorders, and medications.
 - Intrinsic factors are the leading cause of falls in the older adult.

- **Extrinsic Factors** are environmental challenges or hazards that may affect balance and stability:
 - Loose rugs, slippery floors, poor lighting, obstacles, clutter, uneven surfaces, improper use of assistive device, poor footwear.

PREVENTION

VISUAL DEFICITS

- Many eye conditions such as cataracts, glaucoma, macular degeneration, blindness due to diabetes, and vision issues due to a stroke will all affect an older adult's ability to navigate obstacles and uneven surfaces safely.
- With aging, the eyes take more time to adjust to changes in light and glare increasing the risk of falling especially when entering/exiting a building.
- Changes in depth perception and peripheral vision can decrease your ability to judge the steepness of stairs or curbs or to avoid obstacles in your path.
- Encourage consistent use of eyeglasses if prescribed. Ensure that they are kept clean.
- Encourage regular vision checkups.
- Provide proper lighting throughout room and all common areas. Provide night-lights for nighttime toileting.
- Add contrasting colors as necessary.
- Communicate with the physician/nursing and recommend to occupational therapy for specific low vision training.

HEARING

- Changes in hearing can occur as we age. Sounds help us to orient us to where we are and when we are in danger.
- Changes in the inner ear can cause dizziness and orientation problems such as vertigo.
- Ensure consistent use of hearing aids as prescribed.
- Encourage regular hearing checkups with an ear, nose, and throat (ENT) physician.

BALANCE/PROPRIOCEPTION

- **Proprioception:** the body's ability to know where it is in space without having to look at it. For example, knowing where your feet are while you're walking without looking at them.
- Intact proprioception is particularly important in the lower extremity, the hip, knee, ankle and foot, to prevent falls.
- Diminished proprioception can result in increased risk of falls.



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- Diminished proprioception can be caused by:
 - Anything that causes pain or numbness in your legs and feet.
 - Diabetic neuropathy: decreased sensation in your feet and legs.
 - Neurological conditions: stroke, Parkinson's, multiple sclerosis.
- Failure to exercise regularly results in poor muscle tone, decreased strength, and loss of bone mass and flexibility.
- Watch for changes in strength and balance in the older person that affect transfers, standing ability and walking. Communicate with the physician and/or nursing any changes and recommend physical therapy (PT)/occupational therapy evaluation (OT) as necessary.
- Encourage regular exercise, especially walking. Communicate with PT/OT about specific recommendations.
- Encourage consistent use of the prescribed assistive device. Provide the device if the older adult is not adherent. Check equipment periodically and discuss any safety issues with PT/OT.
- Monitor complaints of foot pain, notify RN appropriately.
- Encourage regular podiatry visits.
- Ensure the consistent use of properly fitted, supportive shoes that have flat, skid-resistant soles. Discourage walking in socks, slippers and shoes without backs.
- If the older adult has a diagnosis of diabetes, Medicare will pay for one pair of custom shoes per calendar year. Report footwear needs to the family, RN, or physical therapist as appropriate.

COMPLAINTS OF DIZZINESS/LIGHTHEADEDNESS

- Report complaints of dizziness, lightheadedness, unsteady gait to RN.
 - Orthostatic hypo-tension: decreased ability to adapt to changes in blood pressure from supine (lying down) to sit, and sit to stand, resulting in a drop in blood pressure and blood supply to the brain with complaints of lightheadedness. To avoid falls and decrease dizziness, encourage the older adult to sit on the edge of the bed for one minute before standing and move feet/ankles up and down.

MEDICATION MANAGEMENT

- Age related changes including slowing of bodily organ functions affect how medications work and make the older adult more prone to adverse reactions.

- The use of four or more medications daily doubles the risk of falls.
- Commonly used medications can increase the risk of falling by causing dizziness and drowsiness. Report changes in presentation to the physician/nursing.
- Communicate with the physician/nursing refusals to take prescribed medications.

COGNITIVE DECLINE

- Provide toileting schedule with assistance as required.
- Wandering: Provide safe pathways for repetitive walking.
- Provide repeated reminders of safe sit to stand transfer technique.
- Provide repeated reminders of proper, consistent use of assistive device during ambulation.
- Know the signs and symptoms of urinary tract infections (dysuria, malaise, nausea, frequency and urgency, nocturia with possible confusion and delirium). Report any changes in cognition to the RN immediately.

HOME SAFETY MODIFICATIONS:

- Lighting: Ensure that all common areas and individuals room are well lit, use night lights for toileting at night, avoid glare.
- Carpets/Rugs: Avoid throw rugs (especially with the use of a rolling walker), provide a skid resistant surface in showers.
- Clear pathways in room and common areas for flow of walking traffic.
- Cabinets/Shelves: Keep frequently used items at waist level.
- Bathroom: Use approved grab bars for support rather than towel bars /sink, use shower chair, use elevated toilet seat if too low, ensure that floor and feet are dry after showering, use skid-resistant strips and pad in the shower.
- Footwear: Consistent use of properly fitted, supportive, flat-soled, skid-resistant soles. Discourage walking in socks, slippers and shoes without backs.
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REFERENCES

Barney, K. (2009). Falls in the elderly. Functional, home and community falls hazards for older adults: an occupational therapy perspective. *Aging Successfully*, 19(1), 18-20.

Berg, R. L., Cassells, J. S., Institute of Medicine (U.S.). Committee on Health Promotion and Disability Prevention for the Second Fifty, & ebrary, I. (1990;1992;). *The second fifty years: Promoting health and preventing disability*. Washington, D.C: National Academy Press.

EMRO, ebrary, I., World Health Organization. Regional Office for the Eastern Mediterranean, & WHO Commission on Social Determinants of Health. (2008). *Building the knowledge base on the social determinants of health: Review of seven countries in the Eastern Mediterranean region*. Nasr City, Cairo, Egypt: World Health Organization, Regional Office for the Eastern Mediterranean.

Fleming, J., Matthews, F. E., Brayne, C., Cambridge City over-75s Cohort (CC75C) study collaboration, & the Cambridge City over-75s Cohort (CC75C) study collaboration. (2008). Falls in advanced old age: Recalled falls and prospective follow-up of over-90-year-olds in the Cambridge city over-75s cohort study. *BMC Geriatrics*, 8(1), 6-6. doi:10.1186/1471-2318-8-6

Hornbrook, M. C., Stevens, V. J., Wingfield, D. J., & Hollis, J. F. (1994). Preventing falls among community-dwelling older persons: Results from a randomized trial. *The Gerontologist*, 34(1), 16-16. doi:10.1093/geront/34.1.16

Mackenzie, L., Clemson, L., & Roberts, C. (2013). Occupational therapists partnering with general practitioners to prevent falls: Seizing opportunities in primary health care. *Australian Occupational Therapy Journal*, 60(1), 66-70. doi:10.1111/1440-1630.12030

Meyer, C., Hill, S., Dow, B., Synnot, A., & Hill, K. (2015). Translating falls prevention knowledge to community-dwelling older PLWD: A mixed-method systematic review. *The Gerontologist*, 55(4), 560-574. doi:10.1093/geront/gnt127

National institute on Aging (2017). Falls and Older Adults. Retrieved from <https://nihseniorhealth.gov>.

Society, A. G., Society, G., Of, A. A., & On Falls Prevention, Orthopaedic Surgeons Panel. (2001). Guideline for the prevention of falls in older persons. *Journal of the American Geriatrics Society*, 49(5), 664-672. doi:10.1046/j.1532-5415.2001.49115.x

Van Oss, T., Rivers, M., Marci, C., Heighton, B., & Reid, B. (2012). Bathroom safety: environmental modifications to enhance bathing and aging in place in the elderly. *OT Practice*, 17(16), 14-19.

Yoshida, S. (2007). A global report on falls prevention epidemiology of falls. World Health Organization, 1-40.



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