





Being Safe at Home

FOX Rehabilitation

Dana Wentlejewski, MS, OTR/L

Regional Director

LSVT BIG Certified



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Objectives:

1. Discuss concerns for growing fall risk and provide solutions to minimize risk
2. Provide proactive methods for assessment and healthy aging
3. Discuss importance of home safety assessments
4. Provide initial areas of focus of home modifications to safely age in place

Fall Risk



Power in Numbers

- **1 in 4 people 65 and older fall each year**
- Over 3 million people are treated in the emergency departments annually for fall-related injuries. (Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS) [online]. Accessed August 5, 2016)
- In 2015, total medical costs for falls totaled more than \$50 billion. (Florence CS, Bergen G, Atherly A, Burns ER, Stevens JA, Drake C. Medical Costs of Fatal and Nonfatal Falls in Older Adults. Journal of the American Geriatrics Society, 2018 March, DOI:10.1111/jgs.15304)



Risk Factors for Falls

- **Extrinsic (External):**

- Home safety
- Medications
- Improper use of assistive device

- **Intrinsic (Internal):**

- Advanced age
- Previous falls
- Muscle weakness
- Gait and balance problems
- Poor vision
- Postural hypotension
- Chronic Conditions: arthritis, stroke, incontinence, diabetes, Parkinson's, dementia
- Fear of falling

*****Multi-disciplinary team approach with health care providers can help to identify and manage patients at risk for falling***

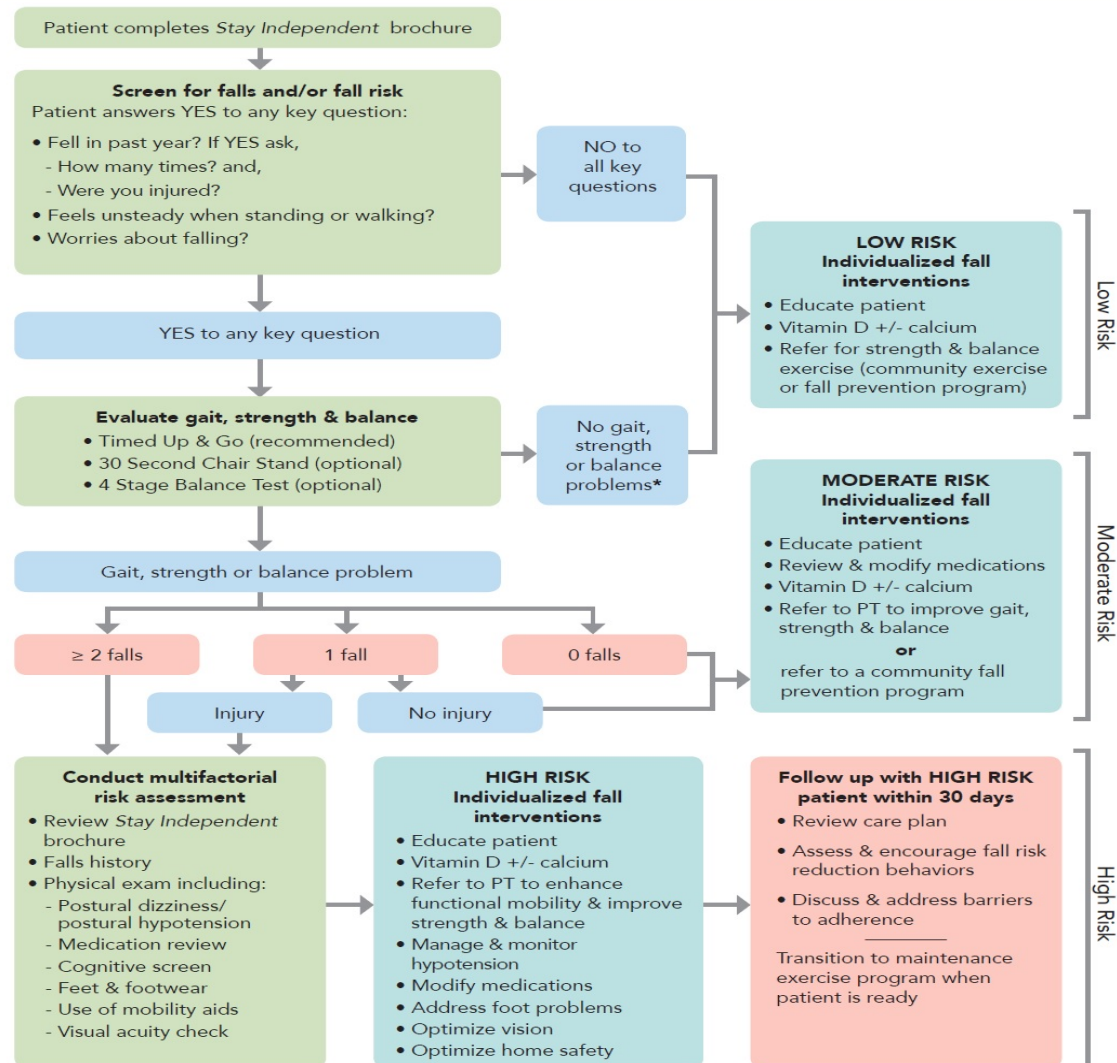


Stopping Elderly Accidents, Deaths and Injuries (STEADI)

- Centers for Disease Control (CDC) has developed the STEADI tool aimed to reduce falls by:
 - Screening all older adults once a year for previous falls and/or balance problems
 - Enhance multi-disciplinary team approach
- 3 Core Elements to the STEADI
 - Step 1: Screen
 - Step 2: Assess
 - Step 3: Intervene



Algorithm for Fall Risk Assessment & Interventions



*For these patients, consider additional risk assessment (e.g., medication review, cognitive screen, syncope)



Centers for Disease
Control and Prevention
National Center for Injury
Prevention and Control

STEADI Stopping Elderly
Accidents, Deaths & Injuries



Clinical Approach to Falls

- Multi-disciplinary team approach to rehabilitative care
- Effective clinical interventions can slow the progression of the functional decline associated with Parkinson's Disease.
- Strong emphasis on individualized interventions taking into consideration the client's pharmacological management to maximize the benefit of peak drug effectiveness for activities and training
- Physical, occupational, and speech therapists help their clients achieve optimal function through *individualized* evidence-based interventions:
 - high intensity resistive exercises
 - flexibility exercises
 - voicing exercises
 - walking programs
 - instruction in cueing
 - compensatory strategies



Benefits of Clinical Approach

- Improved Vocal Loudness:
 - Research shows that high effort speech treatments can improve hypophonia in individuals with Parkinson's disease.
- Decreased Fall Risk:
 - Research demonstrates that balance training combined with lower extremity strength training is highly effective in improving balance in clients with Parkinson's disease. (Keus, et al., Movement Disorders, 2007)
- Improved Cognition:
 - Cognitive rehabilitation has been shown to maintain and improve cognitive skills and increase the quality of life to individuals with cognitive decline related to Parkinson's disease. (Calleo, et al., Parkinson's Disease, 2012)
- Increased strength:
 - Research shows that high intensity strength training can improve stride length, lower extremity strength and gait speed (Scandalis, et al., American Journal of Physical Medicine and Rehabilitation, 2001)



Home Safety



What We Know

- 80% of people over the age of 50 want to remain in their homes as they age
- As the older adult population continues to grow, so does the demand to modify homes in order to allow individuals to safely age in place.
- Home modifications are adaptations of living environments intended to increase usage and safety and enable independence.
- *Improve Activities of Daily Living:*
 - Participants in an occupational therapy study found that those who received an examination of environment hazards and problem solving strategies to identify behavioral and environmental hazards had less difficulty with ADLs and IADLs, improved self-efficacy, and increase in use of adaptive strategies and decreased fear of falling compared with control participants. (Gitlin et al. 2006. Center For Applied Research on Aging and Health Research Papers)
- *Decrease in Hospital Admissions:*
 - An occupational therapy home assessment leads to a reduction in falls and fall risk, decreased in the chance of hospital admission, and a slower decline in activities of daily living function. (Close, J. et al. 1999. The Lancet)
- *Reduces Falls:*
 - Interventions such as diagnostic home visit, assessment for environmental hazards, and advice for hazard reduction lead to 31% fewer falls than the control group. (Nikolaus, T. & Bach, M. 2003. Journal of American Geriatrics Society)



Home Safety Assessment Components

- Comprehensive home evaluations to assess performance barriers and home hazards as well as identify solutions
- Use of customized, off the shelf, or universally designed technologies
- Recommendations on home environments:
 - Alterations
 - Adjustments
 - Additions



Start Thinking NOW

- Entry

- No-step entry with cover
- Handrail if steps
- Ramp to doorway
- 5 ft access aisle between car in garage
- Sensor light at exterior

- Exterior

- Low-maintenance exterior
- Low-maintenance yard

- Interior

- 32 inches of clear width doorways
- Levered door hardware
- Lower windows with easy to operate hardware
- Place frequently used items on midlevel shelves
- Remove throw rugs
- Remove clutter and pick up things on the floor, especially in walkways



Start Thinking NOW

- Interior Con't

- Lighting

- Light switches by each entrance to halls/rooms
 - Flashing porch light or 911 switch

- Appliances

- Side by side fridge/freezer
 - Front load laundry machines

- Stairways

- Residential elevator/lift
 - Hand rails on both sides
 - Contrast strip on top/bottom of stairs, contrast between treads and risers on stairs
 - Good lighting

- Bathroom

- Raised toilet (17-19 inches)
 - Grab bars around tub/shower, toilet
 - Shower stall vs tub shower
 - Adjustable/handheld showerhead



Reference: Center for Disease Control. Check for Safety. <https://www.cdc.gov/steady/patient.html>

Senior Citizens Guide. Aging In Place Design Checklists.

<https://www.seniorcitizensguide.com/articles/housing/aging-in-place-checklists.htm>



Questions?





Thank you.