
Screening Tools: Fall Prevention Among Older Adults

Paul Burke, DPT, MSPT, OCS, Cert MDT



Why Screen for Falls?

- According to the Centers for Disease Control, more than one third of adults aged 65 and older fall each year in the United States and 20% to 30% of the people who fall suffer moderate to severe injuries. Among those age 65 and older, falls are the leading cause of injury death.

Physician Quality Reporting System (PQRS)

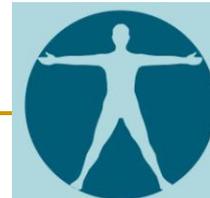
- Centers for Medicare and Medicaid Services:
 - Quality measures are developed to facilitate provider's actions that are evidenced based and that have been identified as a known gap in care.
 - Specific falls measures
 - to assess falls risk on all "at risk" beneficiaries
 - obtain care that would minimize their risk of future falls
 - Falling and Fear of Falling as you age should not be accepted as a "*normal*" process of aging.



Performance
Physical Therapy

Important Questions

- Risk (and prevention) of Future Falls
 - “Have you had 2 or more falls in the past year or any fall with injury in the past year ?”
 - determine the **frequency, context, and characteristics** of the fall
- Patients
 - Seek medical attention due to a fall
 - report recurrent falls
 - difficulty walking
 - gait unsteadiness
 - fear of falling



Defining a Fall

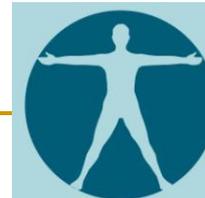
■ Fall

- A sudden, unintentional change in position causing an individual to land at a lower level, on an object, the floor, or the ground, other than as a consequence of sudden onset of paralysis, epileptic seizure, or overwhelming external force



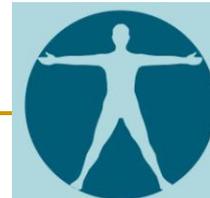
Performance
Physical Therapy

Fall Risk Assessment & Plan of Care



Screening Tools

- Screening tools are used to identify those at risk:
- Falls Efficacy Scale
- Activities-specific Balance Confidence (ABC) Scale
- Berg Balance
- Timed Up and Go
- Dynamic Gait Index
- 6 minute Walk Test



Performance
Physical Therapy

Falls Efficacy Scale (FES)

- Measures a fear of falling
 - Fear of falling: "low perceived self-efficacy at avoiding falls during essential, nonhazardous activities of daily living"
- 10-item rating scale to assess confidence in performing daily activities without falling
 - > 80 increased risk of falling
 - > 70 indicates a fear of falling



Activities-specific Balance Confidence (ABC) Scale

- 16-item scale rated from 0% (no confidence) to 100% (complete confidence) during course of daily activities
 - < 50 indicate a low level of functioning
 - > 50 – 80 indicate a medium level of functioning
 - > 80 indicate a high level of functioning
- ABC discriminates better than Falls Efficacy Scale (FES) scores of high versus low mobility participants



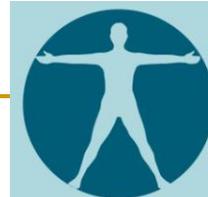
Berg Balance Scale (BBS)

- 14-item measure: assess static balance and fall risk
- Static and dynamic activities
- Score of 56 indicates functional balance
 - Score of < 45 indicates individuals may be at greater risk of falling
 - 56 to 54, each 1-point drop in BBS associated with a 3% to 4% increase in fall risk
 - 54 to 46, a 1-point change in BBS led to a 6% to 8% increase in fall risk
 - < 36 , fall risk was close to 100%



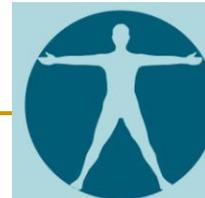
Timed Up and Go

- Assesses mobility, balance, walking ability, and fall risk in older adults
- Description
 - Patient sits in a chair with their back against the chair back
 - On the command “go”, patient rises from the chair, walks 3 meters at a comfortable and safe pace, turns, walks back to the chair and sits down
 - Timing begins at the instruction “go” and stops when the patient is seated
 - Patient should have one practice trial that is not included in the score
 - Patient must use the same assistive device each time individual is tested to be able to compare scores



Dynamic Gait Index

- Measures ability to modify balance while walking in the presence of external demands
- Tasks include:
 - Gait on even surfaces
 - Gait with changing speeds
 - Gait and head turns both horizontal and vertical
 - Stepping over and around obstacles
 - Gait with pivot turns and stairs
- Highest possible score is 24 points
 - Score <19 indicative of fall risks
 - Scores of 19/24 or less are 2.58 times more like to have reported a fall in the previous 6 months than subjects with scores above 19
 - >22/24 safe ambulators



6 Minute Walk Test

- Assesses distance walked over 6 minutes, performed at the fastest speed possible
 - Gait speed is highly correlated to fall risk
- Assistive devices can be used but kept consistent from test to test

Mean Distance in Meters by Age & Gender

Age	Male	Female
60-69	572m	538m
70-79	527m	471m
80-89	417m	392m



Fall Prevention Among Older Adults

■ Six Locations

- 1525 Wampanoag Trail
Suite 205
East Providence, RI 02915
- 45 Seekonk St
Providence, RI 02906
- 400 Massasoit Ave, Ste 203
East Providence, RI 02914
- 129 School St
Pawtucket, RI 02860
- 330 Cottage St
Pawtucket, RI 02860
- 1822 Mineral Spring Ave
North Providence, RI 02904

401-726-7100



References

1. www.apta.org
2. www.cms.gov
3. Tinetti, M.E., Richman, D., & Powell, L. (1990). Falls efficacy as a measure of fear of falling. *Journal of Gerontology: PSYCHOLOGICAL SCIENCES*, 45(6), 239-243.
4. Hauer, K., Yardley, L., et al. (2010). Validation of the Falls Efficacy Scale and Falls Efficacy Scale International in geriatric patients with and without cognitive impairment: results of self-report and interview-based questionnaires. *Gerontology* 56(2): 190-199.
5. Powell, L.E., & Myers, A.M. (1995). The activities-specific balance confidence (ABC) scale. *Journal of Gerontology: MEDICAL SCIENCES*, 50A(1), M28-M34.
6. Berg, K. O., Wood-Dauphinee, S. L., et al. (1992). "Measuring balance in the elderly: validation of an instrument." *Can J Public Health* 83 Suppl 2: S7-11.
7. Shumway-Cook, A., Baldwin, M., et al. (1997). "Predicting the probability for falls in community-dwelling older adults." *Physical Therapy* 77(8): 812.



Performance
Physical Therapy