



The Ups and Downs of Floor Transfers

by Cindy Lane Moore PT, DPT

Editor's Note: This case study is published in advance of the July 20, 2021 Journal Club webinar and accompanies the article: Ardali G, States RA, Brody LT, Godwin EM, Characteristics of older adults who are unable to perform a floor transfer: Considerations for clinical decision-making. J Geriatr Phys Ther 2020; 43(2):62-70.

Mr. Plank is an 84-year-old male who was referred by his primary care physician to home care physical and occupational therapy to address limited ambulation, transfers, and ADLs. Mr. Plank meets the eligibility requirements for Medicare Part A services. His stated goal is to improve his walking distance, steadiness, and engage in more active play with his adolescent-aged grandchildren.

Mr. Plank lives in a one-story home with his wife who performs all the household IADLs and assists him with ADLs as needed. Mrs. Plank reports that her husband fell 5 days ago in the living room while she was in the kitchen preparing dinner. She states that even though he had no pain and did not appear injured, she was "not able to pick him up" and so she called 911. The EMTs assessed him. Mr. and Mrs. Plank thought he was ok; he declined transport to the ED and followed up with his primary care physician the next day. Mrs. Plank reports that her husband also fell several months ago, and, at that time, her nephew was able to come and help him get up. She is hoping he does not fall again, but in case he does, she would like a safe way that she could assist him. They are planning to move to an elevated senior high rise apartment building in the near future.

PMH: Parkinson's disease, mild cognitive impairment, hypertension, urge incontinence, sleep apnea.

Medications: Carbidopa 25 mg – Levodopa 100 mg

tablet 3x/day. All other medications are 1x/day: Lisinopril 20 mg; Hydrochlorothiazide 12.5 mg; Aspirin 81mg; Prevas-tatin 40 mg; Melatonin 5 mg (chewable); Sertraline 50 mg.

Examination

Resting Vitals: Radial pulse 74 bpm; BP 130/80 mmHg seated, 122/80 standing; SpO2 97%; RR 15 breaths/min

Cognitive Screen: Patient reports forgetfulness and is A+O x3. Patient had 4 errors on the Short Portable Mental Status Questionnaire (SPMSQ), indicating mild cognitive impairment. Patient Health Questionnaire (PHQ-2) was positive for depression; he did not present with suicidal ideations. Mr. Plank underestimates his safety and mobility limitations; and his safety awareness is impaired.

Pain: Patient denies pain.

Transfers: Independent supine-to-sit. Supervision for bed-to-chair and sit-to-stand. Patient indicates exertion (grunting) with those transfers, and supine-to-sit body mechanics appear inefficient. Shower transfers with verbal cues for grab bar use.

Ambulation: Supervised ambulation in home levels 50 feet without device. Gait deviations include short step length, inadequate swing phase hip and knee flexion and ankle dorsiflexion. Shows forward head and kyphotic posture. Supervised on 5 exterior steps with left (ascending) handrail and no device.

Strength and Flexibility: Active range of motion bilateral upper and lower extremities is grossly within functional limits (WFL). Strength of BUEs grossly WFL. 4/5 bilateral hip flexors, knee extensors and dorsiflexors. 3/5 bilateral hip extensors, hip abductors, knee flexors and plantar flexors.

Outcome Measures: Timed Up and Go (TUG) is 20 seconds, no device. TUG-Cognitive (counting back by fives) is 33 seconds, no device. Modified 30-Second Sit-to-Stand is 8 repetitions. Single Leg Stance is 3 seconds on right, 2 on left. Dependent in the 3-point Floor Transfer Test.

Assessment

Mr. Plank presents with generalized lower body weakness with resultant effortful and inefficient transitional movements and limited community mobility. He has a history of recent falls (2 in past 6 months) and Missouri Alliance Home Care (MAHC-10) score of 8/10 (age 65+, 3+ diagnoses, falls history, urinary incontinence, impaired functional mobility, environmental hazards, polypharmacy, and cognitive impairment) indicates high falls risk.

Intervention

Physical therapy plan of care included:

1. Exaggerated amplitude activities in sitting (large reaches from floor to ceiling), standing (high steps forward and backward by kitchen counter, step and reach forward/sideways/backward), and during ambulation (large arm swings, high stepping, "mud walking") with tactile and verbal cueing.
2. Gait training with cueing on levels and non-levels without an assistive device while incorporating multi-task talking and scanning environment.
3. Balance and core training including sit-to-stands with feet in challenging (semi-tandem) positions, backwards walking and side stepping.
4. Transfer training included getting down onto and up from floor using chair support, progressing from also having therapist or wife assistance to no human assistance.
5. Home exercise program expanded to include 3 Tai Chi movements; he was provided contact information for a local Tai Chi group for older adults.

Status After Four Weeks of Physical Therapy

Transfers: Independent with bed-to-chair and sit-to-stand transfers. Mr. Plank's body mechanics for these and for supine-to-sit transfers improved. He is independent with shower transfers with grab bar.

Ambulation: Independent ambulation in home and on driveway/sidewalk without device 200 feet. Improved step length, swing, and head/trunk posture. Independent on 5 exterior steps with left (ascending) handrail and no device.

Outcome Measures

3-point Floor Transfer Test	Dependent	Assisted (uses chair)
Modified 30-Second Sit-to-Stand (reps)	8	12
Single Leg Stance (sec)	3 on right, 2 on left	7 on Right, 6 on Left
TUG (sec)	20, no device	15
TUG-Cognitive (sec)	33, no device	28, no device
Bed-to-Chair transfer	Supervision	Independent
Sit-to-Stand transfer	Supervision	Independent
Gait Speed (m/sec)	0.50	0.67

Discussion

Floor transfers may be an important but unaddressed functional limitation in older adult patient populations. Difficulty getting up after falling is common. Even when a fall does not cause injury, prolonged time spent on the floor puts older adults at risk for other medical problems. Inability to get down and up from the floor has been found to be a marker of failing health and function¹ and predictor of serious fall injuries¹ and death.² Timed supine-to-stand correlated with gait speed, grip strength, and Timed Up and Go.³

The three-point Floor Transfer (FT) Test offers a simple, reliable, and valid way of measuring and documenting floor transfer task performance.⁴ Patients are scored independent, assisted (use of chair), or dependent. Even when patients cannot successfully perform floor transfers, the FT Test can be used to document that inability and serve as a baseline from which later progress may be captured. A dependent FT score may prompt the development of a fall recovery plan, patient education about ways to call for help, and caregiver instruction in how to assist the patient or keep them comfortable until help arrives.

Although a practice settings' federally mandated data sets may not require physical therapists to assess and address floor transfers, patient and caregiver needs may call for it.

References

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