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Utilizing the "Timed Up and Go/TUG" Test to Predict Risk of Falls

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Abstract: The purpose of this poster presentation is to provide information to conference participants to incorporate the use of an objective test, the "Timed Up and Go (TUG)" Test, and the supporting research in order to improve the identification of people at risk for falling.

Assessing fall risk and utilizing fall prevention strategies are an important part of managing the geriatric patient. Assessment of fall risk may include a review of fall history, medication, underlying conditions, functional status, neurological status, psychological factors and environmental factors. An objective test of balance and functional status should be included in a comprehensive assessment of fall risk. Based on the research literature, the "Timed Up and Go" (TUG) Test is an objective, valid and reliable test.

The TUG Test measures, in seconds, the time taken by an individual to stand up from a standard armchair, walk 3 meters (9 feet 10 inches), turn, walk back to the chair and sit down again. The test is performed with regular footwear, with the use of their customary assistive device, at a comfortable and safe pace. A practice trial is given then 2 timed trials are averaged together. The time is then compared to normative values for age, sex and research based guidelines for increased risk of falls and functional decline. Observations of the transition phases (rising from the chair, initiating walking, turning and descent into the chair) can also be documented.

Multiple studies have confirmed the predictive validity. For example: using a score of 14 seconds as a cut off, Shumway-Cook (2000) found a sensitivity and specificity of 87%; (a) Identifies 87% of elderly individuals who are likely to fall by comparison of results of elderly that report a history of 2 or more falls in the last 6 months. (b) Identifies 87% of elderly individuals that are not a risk of falls through comparison of results of elderly that deny a history of 2 or more falls in the last 6 months.

Research supports the use of the TUG Test with people with Parkinson's Disease (Morris et al. 2001), elderly people with or without cognitive impairment (must be able to follow directions) (Rockwood et al. 2000), people with lower limb amputations, total joint arthroplasty, cerebral vascular accidents and hip fracture (Podsiadlo et al 1991, Freter et al. 2000), people with rheumatoid and osteoarthritis and deconditioned elderly people (Podsiadlo et al., 1991).

Multiple studies have confirmed a high intra and inter-rater reliability. The TUG Test can be performed by a Physician (MD/DO), Physician Assistant (PA), Nurse Practitioner (NP), Registered Nurse (RN), Licensed Practical Nurse (LPN), Physical Therapist (PT) or Occupational Therapist (OT).

The TUG Test is quick, low cost and easy to incorporate into an existing fall prevention program.

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