Assessing fall risk and using fall prevention strategies are important tools for managing geriatric patients. Assessment of fall risk may include a review of fall history, medications, underlying conditions, functional status, neurologic 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 a person takes to stand up from a standard armchair, walk 3 meters (about 10 feet), turn, walk back to the chair, and sit down again (Figures 1 and 2). The test is performed by the patient who wears regular footwear, uses customary assistive devices, if any, and walks at a comfortable and safe pace. A practice trial is given, followed by 2 timed trials. The results of the timed trials are averaged. The time is then compared to normative values for age, gender, and research-based guidelines that measure increased risk of falls and functional decline. Observations of the transition phases (rising from the chair, initiating walking, turning, and sitting in the chair) are also documented.

**Figure 1.** Poster presentation at the 2006 annual symposium of the American Medical Directors Association (AMDA).
Multiple studies have confirmed the content validity, concurrent validity, and predictive validity of the test.2 Research supports the use of the TUG Test for people with Parkinson’s disease; elderly people with or without cognitive impairment (but who are able to follow directions); people with lower limb amputations, total joint arthroplasty, hip fracture, rheumatoid arthritis and osteoarthritis; and deconditioned elderly people.

Multiple studies have confirmed a high intrarater and interrater reliability. The TUG Test can be performed by physicians, nurses, and physical and occupational therapists.

The TUG Test can be easily incorporated into an existing fall prevention program.

The information in this article was presented at the 2006 annual symposium of the American Medical Directors Association (AMDA).

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Tim Fox is the Executive Director for Fox Rehabilitation: Geriatric Therapy at Home.

References

Figure 2.
TUG sample test form

<table>
<thead>
<tr>
<th>SAMPLE TEST FORM</th>
</tr>
</thead>
<tbody>
<tr>
<td>TIMED UP AND GO/TUG TEST TO PREDICT RISK OF FALLS</td>
</tr>
<tr>
<td>NAME:</td>
</tr>
<tr>
<td>DATE:</td>
</tr>
</tbody>
</table>

NORMATIVE DATA1

<table>
<thead>
<tr>
<th>AGE</th>
<th>GENDER</th>
<th>MEAN (seconds)</th>
<th>NORMAL RANGE (seconds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>65-69</td>
<td>MALE</td>
<td>8</td>
<td>4-12</td>
</tr>
<tr>
<td>65-69</td>
<td>FEMALE</td>
<td>9</td>
<td>4-12</td>
</tr>
<tr>
<td>70-79</td>
<td>MALE</td>
<td>9</td>
<td>5-15</td>
</tr>
<tr>
<td>70-79</td>
<td>FEMALE</td>
<td>9</td>
<td>5-15</td>
</tr>
<tr>
<td>80-89</td>
<td>MALE</td>
<td>10</td>
<td>8-12</td>
</tr>
<tr>
<td>80-89</td>
<td>FEMALE</td>
<td>11</td>
<td>5-17</td>
</tr>
</tbody>
</table>

Instructions to patient: “On the word ‘go,’ you are to get up and walk at a comfortable and safe pace to the line (less than 3 meters away), turn, return to the chair, and sit down again.”

Observations may include (but are not limited to): quality of gait; time to start walking; quality of gait; use of assistive device; ability to turn and change direction; activity intolerance; functional visual deficits; cognition; memory and safety awareness; footwear; any loss of balance episodes.

TRIAL 1: _______ seconds | OBSERVATIONS:
TRIAL 2: _______ seconds | OBSERVATIONS:

AVERAGE: _______ seconds

Sensitivity and Specificity2

If score < 14 seconds: 87% not at high risk of falls
If score ≥ 14 seconds: 87% high risk of falls

Medicare Diabetic Measures That Pay (continued from page 15)

AAFP Physician’s PQRI Data Collection Sheet: Diabetes

The AAFP has developed data collection sheets to help you report measures and select quality codes at the time of service. These are available online at: www.aafp.org/online/etc/medialib/aafp_org/documents/prac_mgt/quality/cmspvrp/diabetesmeasures.Par.0001.File.tmp/diabetespqrimeasures.xls

Things to Know About the PQRI:3

• Use your NPI to bill. Data are analyzed using an individual’s NPI; bonuses are paid using an individual’s taxpayer identification numbers (TINs).
• Choose at least 3 applicable measures to report.
• Measures reported use CPT Category II codes with ICD-9 codes that link to patient diagnoses. Once a CPT II code has been reported, it must be included with the diagnosis 80% of the time to be eligible for the bonus payment.
• The reporting period for 2008 initiatives begins January 1, 2008, and ends December 31, 2008. CMS must receive claims by February 28, 2009, for them to be included in the 2008 reporting period.

PQRI and Pay-for-Performance Resources

PQRI and Pay-for-Performance Resources

AAFP PQRI Web site: www.aafp.org/practicemgt/pqri
CMS PQRI Web site: www.cms.hhs.gov/PQRI

Reading


References