Presentation by Will Saxena, MD:


This study looked at numerous tests that have been suggested as fall risk indicators but whose validity has not been demonstrated in large representative samples of community-dwelling older people.

The objective of the study was to examine the comparative ability and clinical utility of eight mobility tests for predicting multiple falls in older community-dwelling people.

The study design included a prospective cohort study with 362 subjects aged 74-98 years with specific measurements - the sit-to-stand test with one and five repetitions, the pick-up-weight test, the half-turn test, the alternate-step test (AST), the six-metre-walk test (SMWT) and stair ascent and descent tasks. Falls were monitored for 1 year with ‘fall calendars’.

Results: in the 12-month follow-up period, 80 subjects (22.1%) suffered two or more falls. Multiple fallers performed significantly worse than non-multiple fallers in the sit-to-stand test with five repetitions (STS-5), the AST, the half-turn test, the SMWT and the stair-descent test. When dichotomized using cut-off points from receiver-operated characteristics (ROC) curve analyses, these tests demonstrated reasonable sensitivity and specificity in identifying multiple fallers. A principal components analysis identified only one factor underlying the mobility tests. Poor performances in two mobility tests, however, increased the risk of multiple falls more than poor performance in one test alone (ORs = 3.66, 95% CI = 1.44, 9.27 and 1.61, 95% CI = 0.62, 4.16 respectively).

The authors conclude that the various mobility tests appear to be measuring a similar 'mobility' construct. The tests demonstrated poor to fair sensitivity and specificity in identifying older people at risk of multiple falls. As broad a geriatric syndrome ‘Falls’ is, these tests should only be used as initial screens for identifying older people in need of further assessment based on the context of the individual subject and confounding factors predisposing to this syndrome. Based on feasibility and predictive validity, the AST, STS-5 and SMWTs were the best tests in this particular study.

Limitations: Firstly, the participants comprised relatively healthy older people and thus the findings are unlikely to generalize to frail older people. Secondly, although component parts were measured, the timed up-and-go test (recommended by the American and British Geriatrics Societies as the screening test for falls) was not included as a comparison.
Primary Care Screen for Early Dementia

Presentation by Janet Specht, RN, PhD:


**Objective:** To determine whether the Alzheimer’s Disease Screen for Primary Care ADS-PC) is more sensitive to early dementia than the Mini-Mental State Examination and whether it has as high a misclassification rate in minority patients and patients with limited education.

**Background and Significance:** The need to identify patients with early dementia in primary care to get best results from current drugs and to delay progression. Need efficient and cost effective and accurate screening. MMSE most commonly used to measure global cognitive function. Misclassification rate for the MMSE are high for minority patients and for individuals with low education, although this has been modified some with adjusted cutoff scores. To address these concerns a brief high-sensitivity dementia screen (The Alzheimer’s Disease Screen for Primary Care (ADS-PC) is applied to all patients aged 65 or older in the first stage, and only the patients who fail undergo the more time consuming second sate to diagnose memory impairment. Only 30% required second testing. Found good concurrent criterion validity using the Clinical Dementia Rating. It had high sensitivity (0.75) and high specificity (0.90) for identifying early dementia and higher sensitivity in identifying AD 0.85). The ADS-PC worked equally well in African Americans and Caucasians and in patients with differing educational levels. This study is to compare it with the MMSE in African American patients and in patients with limited education.

**Design:** Cross sectional validation study

**Sample:** Selected from 1,041 persons receiving care in the Geriatric Ambulatory Practice clinic in the Bronx, New York who were contacted between January 2003 and December 2005. Inclusion Criteria: aged 65 or older, self described as white or black, not of Hispanic origin, provided the name of a family member or friend who had know them for at least 5 years, spoke English since age 30, and had adequate vision to complete the neuropsychological test. People scoring higher than 18 on the MMSE were excluded. Each study participant underwent a neuropsychological evaluation and a screen battery to determine dementia status. N=316 African-American and Caucasian patients who completed the baseline battery. The cognitive status of each participant was established by consensus of neuropsych scores. A geriatrician and a geriatric psychiatrist using DSM-IV criteria for dementia and from the diagnostic test battery and the informant interview. This was made without use of the MMSE scores or the ADS-PC. All subjects completed both stages of the ADS-PC which would not be done in clinical practice.

**Statistical Methods:** ROC cures looking at the misclassification rates of cases and non-cases for the MMSE and the ADS-PC.

**Results:** Sensitivity was 0.75 for the ADS-PC and 0.53 for the MMSE. Specificity was .90 vs .73. Using conditional odds ratio, the MMSE misclassified five times as many dementia cases as the ADS-PC. In African Americans, the sensitivity was 0.81 for the ADS-PC and 0.39 for the MMSE., indicating that the MMSE failed to identify more than half of the cases with dementia. Although the sensitivity and specificity were higher for the ADS-PC than the MMSE for participants with less than 12 years of education, these differences were not significant. Efforts to improve the detection of traditionally underdetected conditions in primary care such as depression indicates that screening or case-finding tools administered by clinic staff generate better results than physician initiated screening.

**Limitations:** Results are encouraging but the study has limitations. Results are population specific, so replication is needed. Didn’t give information on the length of time to administer the instruments.
Treatment of Hypertension in Patients 80 Years of Age or Older

Presentation by Kevin Glenn, MD:


Treatment of hypertension is beneficial. But to treat persons with hypertension who are 80 years of age or older is unclear. It is unclear if using antihypertensive therapy may reduce the risk of stroke, but also possibly increasing the risk of death.

Methods: 3845 patients from 4 countries (Europe, China, Australasia, Tunisia) who were 80 years of age or older and had a sustained systolic blood pressure of 160 mm Hg or more were randomly assigned to receive either the diuretic indapamide (sustained release, 1.5 mg) or matching placebo. Subjects were participants in the Hypertension in the Very Elderly Trial (HYVET). The primary end point was fatal or nonfatal stroke.

Results: 1933 subjects were in the active-treatment group and 1912 were in the placebo group. The two groups were well matched for age, and mean blood pressure. Findings showed at 2 years, the mean blood pressure while sitting was 15.0/6.1 mm Hg lower in the active-treatment group than the placebo group. Findings revealed that active treatment was associated with a 30% reduction in the rate of fatal or nonfatal stroke (95% confidence interval [CI], –1 to 51; P=0.06), a 39% reduction in the rate of death from stroke (95% CI, 1 to 62; P=0.05), a 21% reduction in the rate of death from any cause (95% CI, 4 to 35; P=0.02), a 23% reduction in the rate of death from cardiovascular causes (95% CI, –1 to 40; P=0.06), and a 64% reduction in the rate of heart failure (95% CI, 42 to 78; P<0.001).

Conclusions: The results provide evidence that antihypertensive treatment with indapamide (sustained release), with or without perindopril, in persons 80 years of age or older is beneficial.
<table>
<thead>
<tr>
<th>Sun</th>
<th>Mon</th>
<th>Tue</th>
<th>Wed</th>
<th>Thu</th>
<th>Fri</th>
<th>Sat</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
<td>15</td>
</tr>
<tr>
<td>16</td>
<td>17</td>
<td>18</td>
<td>19</td>
<td>20</td>
<td>21</td>
<td>22</td>
</tr>
<tr>
<td>23</td>
<td>24</td>
<td>25</td>
<td>26</td>
<td>27</td>
<td>28</td>
<td>29</td>
</tr>
<tr>
<td>30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Next Journal Meeting: November 21, 2008