THE 30-S CHAIR STAND TEST AND HABITUAL MOBILITY PREDICT REHABILITATION NEEDS AFTER ACUTE ADMISSION

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KEEP ME GOING – although I’m elderly

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Development of a predictive model for reduced physical ability after hospitalization

**Introduction**

Many elderly patients experience a physical decline after acute admissions. To prevent this early rehabilitation is required. However, currently we do not know whom among these patients are at risk of a functional decline.

**Aim**

This prognostic study aimed to develop a predictive model which can help to identify elderly with medical complaints who one month after hospitalization have a reduced physical ability.

**Materials and Methods**

In this prospective cohort study 117 acute admitted elderly with a score ≤8 in the 30-second chair stand test (30s-CTS) were included. Fourteen prognostic factors were collected within the first 48 hours of admission. Outcome were 30s-CTS one month after the admission. Three significant factors were identified by multivariable backward stepwise logistic regression analysis. A score chart was constructed by using the regression coefficient estimates.

**Results**

**Scoring Chart** point

| Gender (women) | 10 |
| With difficulties climbing a flight of stairs without rest | 25 |
| Using gait aid indoor and/or outdoor | 30 |
| Score ≤ 5 in 30sCTS | 35 |
| **Total** | **100** |

**Discriminative Ability**

<table>
<thead>
<tr>
<th>Score &gt; 65</th>
<th>Number of patients with a 30s-CTS score ≤ 8 (n=76)</th>
<th>Number of patients with a 30s-CTS score &gt; 8 (n=41)</th>
<th>Sensitivity (95% CI)</th>
<th>Specificity (95% CI)</th>
<th>PPV (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>56</td>
<td>31</td>
<td>74% (63-83)</td>
<td>76% (60-88)</td>
<td>85% (74-92)</td>
<td></td>
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</table>

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