Review: the STRATIFY prediction tool has limited accuracy for predicting falls in hospital and geriatric rehabilitation inpatients

QUESTION
How well does the STRATIFY tool predict falls in hospital and geriatric rehabilitation inpatients?

REVIEW SCOPE
Included studies evaluated the STRATIFY tool (score range 0–5) for predicting falls in hospital inpatients exclusively, and reported sufficient data to calculate the outcomes of interest, including number of falls or patients who fell, sensitivity, and specificity.

REVIEW METHODS
Medline, CINAHL, EMBASE/Excerpta Medica, AARP Ageline, Cochrane Database of Systematic Reviews, ACP Journal Club, DARE, and Controlled Clinical Trials Register (all 1997 to Feb 2006), and reference lists were searched for prospective studies that included original data and were published in peer-reviewed journals or letters to the editor. Studies that used the STRATIFY tool with a cut-off score ≥2 exclusively in a geriatric rehabilitation population to predict patients who fell were included in the meta-analysis. 8 studies met the selection criteria: 4 (n = 1285, mean age range 67–81 y, mean follow-up 10–50 d) were done in geriatric rehabilitation settings, and 4 (n = 2599, mean age range 78–84 y, mean follow-up 15 d to 2 mo) were done in acute medical or mixed medical/rehabilitation settings.

MAIN RESULTS
Pooled data from 4 studies done in geriatric rehabilitation settings showed that STRATIFY scores ≥2 had a sensitivity of 67% and specificity of 51% for predicting patients who fell (table). Data from 4 studies done in acute or mixed settings were not pooled. In these studies, cut-off scores for predicting falls and predictive ability of the STRATIFY tool varied (sensitivity range 19–93%, specificity 49–88%, positive likelihood ratio [LR] 1.6 to 7.8, and negative LR 0.08 to 0.92).

CONCLUSION
The STRATIFY tool has limited accuracy for predicting falls in hospital and geriatric rehabilitation inpatients.

*Calculated from data in article.

ABSTRACTED FROM

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Pooled data for STRATIFY scores ≥2 for predicting patients who fell in geriatric rehabilitation settings at a mean follow-up of 10–50 days*

<table>
<thead>
<tr>
<th>Number of trials (n)</th>
<th>Patients who fell</th>
<th>Sensitivity (95% CI)</th>
<th>Specificity (CI)</th>
<th>Positive likelihood ratio</th>
<th>Negative likelihood ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 (1285)</td>
<td>18%</td>
<td>67 (61 to 74)</td>
<td>51 (43 to 59)</td>
<td>1.4</td>
<td>0.64</td>
</tr>
</tbody>
</table>

*Determined from data in article.
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