Stroke unit care improved survival and function for 5 years after an acute stroke


Objective
To determine whether stroke unit (SU) care improves survival and functional status and increases the proportion of patients living at home after 5 years.

Design
Randomized controlled trial with 5-year follow-up.

Setting
University hospital in Norway.

Patients
220 patients (mean age 73 y, 51% men) hospitalized with acute stroke. Exclusion criteria were (subdural hematoma, subarachnoid hemorrhage, symptoms for > 1 week), deep coma at admission, or residence in a nursing home before onset of symptoms.

Intervention
110 patients were allocated to care in the 6-bed SU: a standardized program of up to 42 days of diagnostic evaluation, treatment for the acute phase of disease rehabilitation, and family and patient education from a staff team.

Main outcome measures
Survival, proportion of patients living at home, and functional status measured by the Barthel Index (BI).

Main results
Intention-to-treat analysis was used. At 5 years, Kaplan–Meier survival curve analysis showed that survival was higher in the SU group than in the ward care group (41% vs 29%, P = 0.04). More patients who received SU care were living at home (P = 0.006), were independent (BI score ≥ 95) (P = 0.004), or were at least partly independent (BI score ≥ 60) (P = 0.006).

Stroke unit care vs medical ward care†

<table>
<thead>
<tr>
<th>Outcome at 5 y</th>
<th>Stroke unit</th>
<th>Ward care</th>
<th>RBI (95% CI)</th>
<th>ABI EER – CERI (CI)</th>
<th>NNT (CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>At home</td>
<td>34.5%</td>
<td>18.2%</td>
<td>90% (20 to 206)</td>
<td>16.3% (4 to 21)</td>
<td>6</td>
</tr>
<tr>
<td>Barthel Index</td>
<td>34.5%</td>
<td>18.2%</td>
<td>90% (20 to 206)</td>
<td>16.3% (4 to 21)</td>
<td>6</td>
</tr>
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<td>Stroke unit</td>
<td>34.5%</td>
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<td>16.3% (4 to 21)</td>
<td>6</td>
</tr>
<tr>
<td>Barthel Index</td>
<td>24%</td>
<td>9%</td>
<td>160% (35 to 410)</td>
<td>15% (4 to 20)</td>
<td>7</td>
</tr>
</tbody>
</table>

†Abbreviations defined in Glossary; RBI, ABI, NNT, and CI calculated from data in article.

Conclusion
Stroke unit care improved long-term survival and functional status and increased the number of patients living at home.

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References