Clinical review: Cognitive assessment of older people (BMJ 2011;343:d5042)

OUTCOME OF CARE

- Days spent at home (median 51 days, interquartile range 0-79) was significantly higher in the specialist care group compared to standard care (45 days, interquartile range 0-78; P<0.001). The median days at home was 11 versus 11 days, mortality 22% versus 25% (-9% to 4%), readmission 32% versus 35% (-10% to 5%), and new admission to a care home 20% versus 28% (-16% to 0) for the specialist unit and standard care, respectively.

- There was a significant reduction in caregiver satisfaction (overall 91% v 83%, 2% to 15% higher; P=0.004) and severe dissatisfaction was reduced (5% v 10%, -10% to 0%; P=0.05).

- Bias, confounding, and other reasons for caution
- A Zelen-type design was necessary to accommodate the demands of a busy acute medical admission system, resulting in imbalances in some baseline variables that were associated with outcomes (delirium prevalence 53% v 62%; previous residence in care home 28% v 21%). These were adjusted for statistically. Some 70% of “standard care” was on specialist geriatric medical wards, although process of care was documented to be different between settings. Statistical power to detect moderate differences in outcomes was limited.

- Generalisability to other populations
- The study took place in a single UK centre, which provided sole acute hospital medical services for its population. Results should be generalisable to similar hospitals, but require replication.

- Study funding
- The study was funded by the National Institute for Health Research.

- Trial registration number
- Clinical Trials NCT01136148

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Study question
Does a specialist medical and mental health unit (MMHU) improve outcomes, experience, and satisfaction for older people with dementia or delirium admitted to an acute hospital compared with standard care?

Summary answer
Days spent at home, health status, and service use were no different between settings, but the experience of patients and satisfaction of family carers improved.

What is known and what this paper adds
Specialist units have been proposed to improve outcomes and experience for people with cognitive impairment admitted to hospital and to reduce health and social services resource use. With a specialist medical and mental health unit we did not find improved health status or reduced service use, but the experience of patients and satisfaction of family carers were improved. These outcomes are important, in particular as many of these patients were approaching the end of life.

Design
A randomised controlled trial compared a specialist medical and mental health unit, providing best practice care, with standard hospital wards. Allocation was via a website, in a permuted block design. Patients’ experience was ascertained by structured non-participant observations. Otherwise outcome data collection was blind to allocation.

Participants and setting
Six hundred participants aged over 65 admitted to a large NHS general hospital for acute medical care, identified on admission as “confused.”

Outcome in patients with cognitive impairment admitted to specialist medical and mental health unit (MMHU) or standard care

<table>
<thead>
<tr>
<th>Outcome</th>
<th>MMHU (n=310)</th>
<th>Standard care (n=290)</th>
<th>Difference (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median days at home</td>
<td>51 (0-79)</td>
<td>45 (0-78)</td>
<td>6 (-12 to 24)</td>
</tr>
<tr>
<td>Mortality</td>
<td>68 (22%)</td>
<td>71 (25%)</td>
<td>1.07 (0.7 to 1.3)</td>
</tr>
<tr>
<td>Return home</td>
<td>228 (74%)</td>
<td>202 (70%)</td>
<td>0.91 (0.6 to 1.3)</td>
</tr>
<tr>
<td>Readmitted</td>
<td>99 (32%)</td>
<td>101 (35%)</td>
<td>0.87 (0.6 to 1.2)</td>
</tr>
<tr>
<td>New care home placement</td>
<td>45/222 (20%)</td>
<td>65/230 (28%)</td>
<td>0.81 (0.5 to 1.2)</td>
</tr>
<tr>
<td>Positive mood or engagement (% of 5 min observation periods)</td>
<td>79%</td>
<td>68%</td>
<td>11% (2% to 20%)</td>
</tr>
<tr>
<td>Median (IQR) person hours on observation</td>
<td>4 (1-8)</td>
<td>1.0 (0-3)</td>
<td>3 (1 to 5)</td>
</tr>
<tr>
<td>Median (IQR) person hours on observation</td>
<td>6 (2-7)</td>
<td>5.5 (3-10.5)</td>
<td>-1.5 (-5.5 to 1)</td>
</tr>
<tr>
<td>Carer mostly or very satisfied with care overall</td>
<td>214/234 (91%)</td>
<td>189/228 (83%)</td>
<td>8% (2% to 15%)</td>
</tr>
</tbody>
</table>

IQR = interquartile range.
*Adjusted odds ratio.

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