Review: day hospital is as effective as inpatient care but has lower costs for patients with acute psychiatric disorders


QUESTION: Is day hospital more effective and less costly than inpatient care for patients with acute psychiatric disorders?

Data sources
Studies were identified by searching the Cochrane Library (Issue 4, 2000), Medline (1966–2000), CINAHL (1982–2000), EMBASE/Excerpta Medica (1980–2000), PsycLIT (1967–2000), and bibliographies of relevant articles. Researchers were contacted to identify unpublished studies.

Study selection
Randomised controlled trials that compared acute psychiatric day hospital with standard inpatient care for patients with acute psychiatric disorders (all diagnoses) were selected. Studies were excluded if most participants were <18 or >65 years of age, or if participants had substance abuse or organic brain disorder.

Data extraction
Data were extracted on study quality, patients, feasibility of day hospital treatment, extent of hospital care, clinical and social outcomes, and costs of care.

Main results
9 trials (n=1568) met the selection criteria. Follow up duration ranged from 2–24 months. Sample sizes ranged from 90–378 participants. Individual patient data were obtained for 4 trials (n=646).

Patients allocated to day hospital care had a longer duration of index admission than those allocated to inpatient care (table). Day hospital and inpatient care did not differ for total number of days in hospital (table). In 5 trials (n=607), day hospital and inpatient care did not differ for rates of readmission to day or inpatient care after discharge (p=0.4). In 1 trial (n=160), day hospital and inpatient care did not differ for all cause mortality (p=0.7). Of 5 trials reporting costs of care, 4 reported that day hospital care had lower costs for all psychiatric care (including hospital care) than inpatient care (cost reductions of 21–57%); 1 trial found no cost difference. Analysis of individual patient data in 3 trials showed that day hospital patients had more rapid improvement in mental status than inpatients, but did not differ for social functioning.

Outcomes at 2–24 months

<table>
<thead>
<tr>
<th>Outcomes at 2–24 months</th>
<th>Number of trials (n)</th>
<th>Weighted mean difference (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration of index admission (d)</td>
<td>3 (465)</td>
<td>10.9 (1.09 to 20.7)</td>
</tr>
<tr>
<td>Total number of days in hospital (d/mo)</td>
<td>3 (465)</td>
<td>~0.38 (~1.32 to 0.55)</td>
</tr>
</tbody>
</table>

Conclusions
In patients with acute psychiatric disorders, day hospital is associated with a longer duration of index admission than inpatient care and is not more effective in reducing readmission rates or total number of days in hospital. Day hospital care is, however, associated with cost savings of 21–37% relative to inpatient care.

COMMENTARY
Marshall et al provide an extensive review of randomised controlled trials comparing the effectiveness of day hospital with inpatient care for patients recovering from acute psychiatric illness. Few controlled trials exist, and the 9 studies reviewed were published between 1964 and 1996. The carefully selected studies evaluated full time psychiatric day hospital programmes, rather than programmes just offering transitional support, as fair alternatives to admission to a psychiatric hospital. The studies were done in various geographic locations including the UK, US, and Netherlands; therefore, other systems of care and study findings may differ. A methodological strength of this review is the use of individual patient data from 4 of the 9 trials, which enabled meta-analysis of standardised outcome data.

The results of this review are relevant for psychiatric nurses, clinical nurse specialists working in hospital or community settings, and managers and policy makers who are responsible for programme development, planning, evaluation, and resource allocation. Evidence from this review supports day hospital as a cost effective alternative to hospital admissions for patients needing care during the acute phase of a severe psychiatric illness. The authors cite evidence to suggest that crisis intervention, specifically Assertive Community Treatment (ACT) may reduce hospital readmissions to a greater extent than day hospital programmes. At this juncture, with the growing number of alternatives to inpatient care for managing the acute phase of illness, consideration should be given to the fit between the type of programme and the needs of specific patient groups. For example, a review of ACT as an alternative to standard community care shows that ACT is beneficial for frequent users of psychiatric inpatient care. A range of care models may be required to best meet the needs of patients during the acute phase of illness.

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