CRD summary
This review compared patient outcomes following involuntary and voluntary admission to general psychiatric inpatient care. The authors concluded that service-related outcomes, suicide rate, social functioning and treatment satisfaction were negatively affected in involuntarily admitted patients. The inclusion of poor-quality studies and limitations in the review process meant that it was impossible to judge the reliability of the findings.

Authors' objectives
To compare patient outcomes following involuntary and voluntary hospital admission to general psychiatric inpatient care.

Searching
Studies published in English or German later than 1980 were sought from the electronic databases MEDLINE and German PSYNDEXplus on 9 March 2006. Search terms were reported. Reference lists were scanned to identify further articles.

Study selection
Studies of patients admitted to general psychiatric wards reporting separately on voluntary and involuntary admission with regard to: service-related outcomes, including length of stay (LOS), readmission rate or legal status of readmission; clinical/observer-based outcomes, including mortality, suicide, social functioning or psychopathology (post-traumatic stress symptoms and insight into illness); treatment or medication compliance; and subjective outcomes, including treatment satisfaction, perceived need/justification for admission or perceived coercion.

A variety of standardised and non-standardised measurement instruments were used. Studies of addiction or eating disorders and forensic, geriatric or child/youth psychiatric patients were excluded, as were cross-sectional study designs, outcomes measured only at admission and studies where legal status was recorded later than at admission or according to patient perception.

Almost all studies were carried out in general psychiatric or university hospital settings in west and north European countries, the United States, Canada and Australia. Where reported, patient age ranged from 17 to 70 years. Initial selection of studies was by one author. Three authors independently completed the selection of studies for inclusion in the review.

Assessment of study quality
Study quality was assessed on the basis of clarity of the inclusion criteria, attrition rate, sample size at follow up, definition of follow up, outcome measures and research design. Three authors independently performed the validity assessment; disagreements were resolved by discussion.

Data extraction
Incidence rates were extracted for dichotomous outcomes such as readmission. The mean and standard deviation (SD) or range were extracted for continuous outcomes, such as length of stay (LOS). The phi coefficient was presented for cross-tabulated data. The authors did not state how many reviewers performed the data extraction.

Methods of synthesis
The data were synthesised narratively. The effect size index d was used for the comparison of means (where applicable). Heterogeneity was assessed using the $\chi^2$ test and study differences could be explored in the tables.

Results of the review
Thirty studies were included in the review (n=approximately 18,392 patients; sample sizes ranged from 40 to 9,081). Follow up ranged from the point of admission to 17 years post-admission. Attrition (where reported) varied between 0 per cent and 89 per cent. The overall quality of included studies was considered to be low, although higher for studies of service-related outcomes. Effect sizes ranged from small to medium.

Service related outcomes

Six studies reported a statistically significant longer LOS in involuntarily admitted patients and two studies found a statistically significant longer LOS in voluntarily admitted patients (p<0.05). The authors stated that five studies found a significantly higher readmission rate for involuntarily admitted patients, but this was statistically significant in only two of the three studies shown in the tabulated results (p<0.05). In four studies, patients with involuntary index-admission (legal status) were more likely to be readmitted involuntarily (p<0.003).

Clinical and observer outcomes

Three studies found that involuntarily admitted patients were over-represented in suicide groups compared to control (range 52 per cent to 78 per cent) and this was statistically significant (p<0.02). There were mixed results for social functioning and psychopathology outcomes at different time points. Seven studies showed statistically significant results (p<0.05), including one study showing higher levels of treatment-related stress in involuntarily admitted patients (p<0.01). Involuntarily-admitted patients were comparable or showed a lower level of social functioning at admission and discharge than voluntarily admitted patients, but improvement levels were in the same range. One study of involuntarily admitted older patients found that they were statistically less likely to comply with psychotropic medication at one-year follow up (no data given).

Subjective outcomes

Three studies found a statistically significant lower level of satisfaction in involuntarily admitted patients at short- and longer-term follow-up periods (p<0.01). Greater numbers of voluntarily admitted patients perceived that hospital admission was justified (p<0.01).

Authors' conclusions

LOS, readmission risk and risk of involuntary readmission were at least equal or greater for involuntarily admitted patients. These patients also showed higher suicide rates, lower levels of social functioning, were more dissatisfied with treatment and questioned the justification for hospitalisation.

CRD commentary

The review question was clear and supported by well-defined inclusion criteria. The search strategy appeared to be limited in its coverage of only two databases, with restrictions on search date and language and no apparent attempt to retrieve unpublished material. This means that potentially relevant studies may have been missed, and language and publication biases cannot be ruled out. There was some assessment of study quality and the assessment was used in the discussion of the results. The review process was carried out with some transparency, but the extent of this was not clear in the procedures for study selection and data extraction. Study details were presented clearly. A narrative synthesis of results was appropriate given the substantial variation in study characteristics. The authors' conclusions reflected the limited evidence from poor quality studies, many of which were retrospective in design. Limited evidence, together with the other methodological limitations noted above, make it impossible to judge the strength or reliability of the review findings.

Implications of the review for practice and research

Practice: the authors did not state any implications for practice.

Research: the authors stated that methodologically sound studies were needed in routine care settings across a wider range of countries and patient groups, with focus on whether legal admission status sufficiently differentiates acute hospitalisation outcomes. Standardised outcome measures, adequate sample sizes and clearly defined follow-up periods and tracking strategies were recommended.
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Record Status
This is a critical abstract of a systematic review that meets the criteria for inclusion on DARE. Each critical abstract contains a brief summary of the review methods, results and conclusions followed by a detailed critical assessment on the reliability of the review and the conclusions drawn.