CRD summary
The review appeared to conclude that the evidence for reducing hospitalisation rates was equivocal. The most effective models in preventing older people being admitted to hospital were provided by established, integrated teams in the patient’s home. The review had some methodological limitations and caution is warranted when interpreting the author’s conclusions.

Authors' objectives
To determine the effectiveness of complex interventions in reducing hospital admission rates in older people.

Searching
MEDLINE, CINAHL, British Nursing Index and The Cochrane Library were searched from 2000 to February 2009 for articles published in English. Search terms were reported. Reference lists of retrieved articles were searched.

Study selection
Comparative studies of multifactorial or complex interventions delivered in a community setting or during the transition from hospital to home in elderly participants (65 years or more) were eligible for inclusion. Studies had to report on the effect of the intervention on hospital admission and/or readmission rates. The patient population had to normally reside in their own home. Disease specific studies were excluded.

The included studies examined complex interventions (such as combinations of interdisciplinary teams, key workers, geriatric evaluation and management, home health care, integrated health and social care, physiotherapy and nurses, primary care, care rehabilitation model). Interventions were primarily compared with usual care. There was some evidence that team training was carried out in relation to the intervention. Where reported, participant age was more than 65 years.

One reviewer performed study selection.

Assessment of study quality
One reviewer assessed study quality using the Cochrane Collaboration’s tool for risk of bias to assess adequate sequence generation, allocation concealment, blinding, outcome data completeness, selective reporting and other biases.

Data extraction
One reviewer extracted data on hospital admissions and readmission rates.

Methods of synthesis
A narrative synthesis was undertaken.

Results of the review
Thirteen studies were included in the review (n>23,700 participants). Study quality was generally poor. Few studies adequately concealed allocation, performed blinding or adequately generated a randomisation sequence.

Seven studies showed a statistically significant decrease in hospitalisation rates and six studies showed negative or no effect. Successful interventions were generally structured and defined with established teams that met regularly to discuss and collaborate.

Authors' conclusions
The authors appeared to conclude that the evidence for reducing hospitalisation rates was equivocal. The most effective models in preventing older people being admitted to hospital were provided by established integrated teams in the...
patient’s home and incorporated elements of comprehensive geriatric assessment, care planning, disease management and health promotion.

CRD commentary
Inclusion criteria for the review were clearly defined. Several relevant data sources were searched. There was potential for language bias, as only English-language studies were included. Publication bias was not assessed and could not be ruled out. The author acknowledged that there was no attempt to reduce reviewer error and bias during the review process. Quality assessment was based on a standard checklist, which indicated the generally poor quality of evidence. Studies were narratively synthesised, which was appropriate for the type of data. More grouping of studies would have helped identify trends and aided interpretation of results.

Overall, the review had some methodological problems and the quality of data was generally lacking. Hence caution is warranted when interpreting the author's conclusions.

Implications of the review for practice and research
Practice: The author did not state any implications for practice.
Research: The author stated that further research was required to explore each intervention in greater depth, either by contacting authors and/or examining full-text research papers; grey literature should be searched. Research on other outcomes should be conducted and the cost-effectiveness of interventions should be determined.

Funding
Not stated.

Bibliographic details

Original Paper URL
http://www.ijtr.co.uk/cgi-bin/go.pl/library/article.cgi?uid=48154

Indexing Status
Subject indexing assigned by CRD

MeSH
Aged, 80 and over; Hospitalization; Humans; Patient Admission

AccessionNumber
12010005509

Date bibliographic record published
13/10/2010

Date abstract record published
23/03/2011

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.