The effects of aftercare on chronic patients and frail elderly patients when discharged from hospital: a systematic review

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Authors' objectives
To assess the efficacy of aftercare in chronic patients and the frail elderly when discharged from hospital.

Searching
MEDLINE was searched for the period 1981 to 1994 (keywords are provided). Other sources were personal contacts, the 'snowball method' for tracing unpublished studies and citations screening of all identified articles. For inclusion, articles had to be published in English, French or Dutch or have an abstract in one of these languages.

Study selection

- Study designs of evaluations included in the review: Controlled trials, preferably with a randomised design, were included.

- Specific interventions included in the review: Nursing care after discharge from hospital including: hospital-based, community-based, liaison-nursing, care provided by health visitors and friendly visitors supervised by nurses.

- Participants included in the review: Patients with chronic disease or frail elderly people discharged from hospital were included.

- Outcomes assessed in the review: The outcomes included quality of life (perceived health, well-being and functional and mental health status), effects on compliance (regimen prescriptions and patients' attitudes), costs, medical consumption and quality of care after discharge.

How were decisions on the relevance of primary studies made?
The authors do not state how the papers were selected for the review, or how many of the authors performed the selection.

Assessment of study quality
A standardised list of 18 methodological criteria for controlled trials was used to assess the validity of primary studies, including selection of the study population, description of the intervention, measurement of outcome, and analysis and presentation of data. Weighting factors were used to score the criteria (maximum score 100). The validity of the papers was assessed independently by two reviewers, blinded to journal, author, abstract and conclusions. Any disagreements were resolved through discussion or through consultation with a third reviewer.

Data extraction
The authors do not state how the data were extracted for the review, or how many of the authors performed the data extraction.

Methods of synthesis
How were the studies combined?
The studies were combined in a narrative review, where the study results were discussed according to methodological quality. The study outcomes were classified as positive (intervention group performed better than control group) or
negative (either no difference between interventions and control group or intervention group performed worse than control group).

How were differences between studies investigated?
Differences between the studies were investigated using the validity criteria and sub-group analysis (based on type of aftercare, outcomes and study design).

Results of the review
Seventeen studies (5307 patients) were included. Of these 12 were randomised controlled trials (RCTs) and 5 were controlled studies.

The methodological quality was poor, with only 3 of the 17 studies scoring over 50 (out of 100). Four methodological problems were prevalent, specifically accounting for co-interventions, lack of placebo group, blinding of assessment of outcome, and analysis not based on ‘intention to treat’.

Analysis by type of aftercare programme showed that the majority of studies did not report clear beneficial effects for the intervention group. When aftercare programmes were compared to usual care (8 studies) or the reference treatment was no special nursing care (6 studies), most effects were not beneficial for the intervention group. In the 3 studies comparing intervention with institutional care, positive effects were evident for quality of care and costs.

Overall, the analysis of outcome measures showed that studies with negative or mixed outcomes had similar methodological scores, but studies with only positive results showed lower methodological scores. For the five outcome measures: none of the 10 studies assessing quality of life had positive outcomes; 3 studies of patient compliance, 2 with negative outcomes had higher methodological quality than studies with positive outcome; 6 studies of costs, 5 studies with positive effect for intervention had higher methodological scores than negative studies; 10 studies of medical consumption, 7 studies with negative effects for intervention had higher methodological scores than positive studies; and 2 studies of quality of care both had positive effects for intervention.

Comparison of the RCTs with control trials showed that only 2 of the 12 RCTs had positive outcomes, whilst all 7 controlled trials had positive effects on one or more outcomes.

Cost information
Six studies described an effect on costs, with 5 showing a beneficial effect for the intervention group (no further details are given).

Authors' conclusions
Most of the studies did not report clear beneficial effects for their intervention groups in the aftercare programme. The methodological quality of the majority of the trials was found to be low. Nevertheless, it can be said that the studies with the highest scores demonstrated no effect, except on costs. Further trials are needed in which more attention is paid to rigour of methodological quality.

CRD commentary
Although methodologically this is a good quality systematic review, the inclusion of studies with diverse interventions, participants and outcomes limits the conclusions and usefulness of the review. The review clearly defines its inclusion criteria (including interventions, participants, outcomes and study designs), validity criteria, search strategy and methods of undertaking the review. It lacks discussion of the methods of data extraction

Implications of the review for practice and research
There is a need to improve the methodological quality of studies carried out on nursing interventions in order to obtain meaningful results.
Bibliographic details

PubMedID
9637337

Indexing Status
Subject indexing assigned by NLM

MeSH
Aftercare /methods; Aged; Aged, 80 and over; Chronic Disease /nursing; Clinical Trials as Topic; Frail Elderly; Humans; Netherlands; Patient Discharge; Quality of Life

AccessionNumber
11998008571

Date bibliographic record published
31/08/1998

Date abstract record published
31/08/1998

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.