The effectiveness of various models of primary care-based follow-up after stroke: a systematic review

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CRD summary
The authors concluded the findings do not support the use of stroke support workers, care co-ordinators or case managers to deliver the primary care-based health care and social care review after stroke. The authors’ cautious conclusions reflect the evidence presented and are likely to be reliable.

Authors’ objectives
To evaluate the effectiveness of various models of primary care-based follow-up for patients after stroke and their caregivers.

Searching
MEDLINE, EMBASE, CINAHL, AMED and The Cochrane Library were searched to May 2008 for articles in English. Search terms were reported. Articles were also located via citation tracking and hand searching of bibliographies of articles from relevant journals.

Study selection
Eligible studies evaluated interventions involving both a health care and social care element suitable for post-discharge and annual review of a stroke-care strategy. Interventions could include review of medications and assessment of longer-term disability and caregiver needs and provision of information and signposting to other services. Studies had to be aimed at people over 18 years of age in primary care with a diagnosis of stroke. Outcomes of interest were patient satisfaction, patient health outcomes, levels of depression, patient behaviour, levels of function, quality of life, caregiver burden scales and readmission to hospital. Studies that evaluated secondary prevention alone or ongoing community-based rehabilitation were excluded.

Interventions used stroke support workers, care co-ordinators, case managers or a care management model linked to systems of recall and clinical guidelines in primary care. The duration of the interventions ranged from three to 12 months. Over half the studies were from the UK and the remainder were reported to be from North America. Few studies described the relationship between the intervention worker and the primary care services. Limited information was provided on the theoretical basis of the interventions. Most of the studies excluded patients who had lived in nursing homes. Only two studies included patients with caregivers.

One reviewer conducted the search. At least two reviewers independently screened studies for inclusion. Disagreements were resolved through consensus or by reference to a third reviewer.

Assessment of study quality
Quality was assessed using the McMaster University Quality Assessment Tool with the following criteria: sample selection, study design, identification of confounding factors, blinding of assessors, reliability and validity of data collection methods, recording of withdrawals, intervention integrity and analysis. Studies were graded strong, moderate or weak.

At least two reviewers independently assessed the quality of the studies. Disagreements were resolved through discussion.

Data extraction
Data for relevant outcomes were extracted independently by two reviewers. Disagreements were resolved through discussion.

Methods of synthesis
Data were combined in a narrative summary, reported by outcome, with additional data reported in a table.
Results of the review
Nine randomised controlled trials (RCTs) were included in the review (1,858 patients, range 28 to 417; 379 caregivers). The quality of the studies varied: three were rated high quality, four were rated moderate quality and two were rated weak. All the studies described selection criteria and withdrawals.

Patients and caregivers receiving primary care follow-up interventions did not show any significant improvements in physical function (six RCTs), mood (eight RCTs), quality of life (six RCTs) or patient behaviour (one RCT). There were inconsistent reports of: increased satisfaction for patients and caregivers with some aspects of communication (five RCTs) and a greater perceived knowledge of stroke (three RCTs). There were also mixed reports of caregiver strain (five RCTs) and health service utilisation (two RCTs).

Authors' conclusions
The findings do not support the use of stroke support workers, care co-ordinators or case managers working as described in the interventions in the review to deliver the primary care-based health care and social care review after stroke. The limited quality of the studies and the lack of a sound theoretical basis for the development of the interventions together highlight the urgent need for high-quality research studies in this area.

CRD commentary
The review question and inclusion criteria were broadly defined. Several relevant sources were searched, but restriction of inclusion to studies published in English meant that some studies may have been missed. Quality was assessed using appropriate criteria and some results of the assessment were reported. Appropriate methods to reduce reviewer error and bias were used throughout the review process. A narrative synthesis was appropriate given the differences between studies in terms of interventions and outcomes.

The authors’ cautious conclusions reflected the evidence presented and were likely to be reliable.

Implications of the review for practice and research
Practice: The authors stated that the review findings do not support the use of stroke support workers, care co-ordinators or case managers working, as described in the included studies, to deliver the primary care-based health care and social care review after stroke.

Research: The authors stated that further rigorous studies should consider the mechanisms of communication and interface with primary care staff. Further research on a theoretical basis for the development of primary care-based follow-up after stroke was required.

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