CRD summary
This review assessed interventions to provide continuity of primary care in elderly people with chronic diseases. The review had a number of methodological weaknesses. Although the conclusions appear to be supported by the evidence presented, it is difficult to assess the effectiveness of continuity of care given the lack of detail about the included studies, the variation between them, and the limited results reported.

Authors' objectives
To assess whether providing continuity in primary care produces better outcomes for older people with chronic diseases.

Searching
MEDLINE, EMBASE and CINAHL were searched from January 1970 to July 2005; the search terms were reported. Additional studies were sought from the reference lists of retrieved papers.

Study selection
Study designs of evaluations included in the review
The study designs eligible for inclusion were level I to level III evidence using the criteria of the Canadian Task Force on Preventive Health Care. The study designs included were randomised controlled trials (RCTs), patient surveys, retrospective surveys and a database analysis.

Specific interventions included in the review
Interventions to provide continuity of care were eligible for inclusion. The types of continuity investigated in the included studies were a single doctor, a health organisation, and monthly group visits with a doctor, nurse and pharmacist.

Participants included in the review
Studies in patients aged 50 years or older that were conducted in primary care settings were eligible for inclusion. The participants in the included studies included Medicare recipients and members of health maintenance organisations (HMOs).

Outcomes assessed in the review
Studies that reported any patient outcomes related to continuity of care were eligible for inclusion. The outcomes assessed were patient satisfaction, provider satisfaction, rates of compliance with medications and treatment, number of patient visits, rates of hospitalisation, rates of emergency visits, rates of problem recognition, rates of unnecessary diagnostic tests and rates of preventive visits.

How were decisions on the relevance of primary studies made?
Two reviewers assessed abstracts for inclusion. All potentially eligible trials were retrieved in full text and reviewed in more detail. The inclusion of relevant studies was by consensus.

Assessment of study quality
It is unclear whether the authors assessed the validity of the included studies.

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

Methods of synthesis
How were the studies combined?
A narrative synthesis was provided.

How were differences between studies investigated?
The narrative addressed the two high-quality studies first, then the three moderate- to low-quality studies. Summary characteristics were tabulated.

**Results of the review**
Five studies (n=22,873) were included: two RCTs (n=1,071) and three observational studies (n=21,802) including one cost-effectiveness study (n=12,997).

The studies were heterogeneous in terms of the study population, intervention, type of continuity and outcomes.

**RCTs.**
Two RCTs assessed emergency room visits and length of hospital stay. Both trials found the continuity group had fewer emergency room visits, while one study showed the continuity group had a shorter length of stay. In one trial, only 4 of 17 measures were significantly improved by the continuity intervention.

**Observational studies.**
A patient survey of women aged 50 to 65 years found that continuity was associated with significant improvements in self-reported health status, although when 15 clinical measures were used, only 3 of the 15 (fewer hysterectomies, less congestive heart failure and less chronic bronchitis) improved in the continuity group.

A retrospective survey over 10 years in Medicare patients found that continuity of care was associated with significantly fewer hospitalisations. The other 4 outcomes measured by this study (flu shots, use of mammography, discussion of smoking and discussion of obesity) did not significantly improve with continuity of care.

**Cost information**
A cost-effectiveness study analysing a database of patients of all ages with various illnesses belonging to one HMO found that continuity was associated with a reduction in out-patient visits and prescription costs. The total cost of out-patient treatments, hospitalisations and total cost to the HMO were not improved by continuity. In a retrospective survey of Medicare recipients, continuity of care was associated with significantly lower costs.

**Authors' conclusions**
Although there is general evidence to suggest that continuity of primary care is beneficial, specific evidence in elderly populations is limited.

**CRD commentary**
The study question and inclusion criteria were broad. Relevant medical databases were searched but it appears that the authors made limited efforts to identify unpublished studies. It is not clear whether non-English language papers were included. It is also unclear whether the authors carried out the study selection independently, whereas details provided of the data extraction and validity assessment processes were lacking. There appeared to be some confusion between the research design rating and the quality (internal validity) rating criteria published by the Canadian Task Force. The authors have used only the research design rating, although this was referred to as a ‘quality’ rating in the text of the review, making it impossible to know whether internal validity was assessed.

Limited details of the individual studies were reported. The included studies were heterogeneous: some studies included patients with long-term chronic illness, while others included all members of an HMO. The results included only statistically significant measures; clinical measures that did not reach significance were not reported and, considering the broad range of outcomes, it would have been helpful to have included all measures assessed. The authors’ decision not to pool the studies in a meta-analysis was justified given the broad definitions of continuity and the differences between the studies. Although the conclusions appear to be supported by the evidence presented, the lack of detail about the included studies, the heterogeneity and limited results reported make it difficult to assess the effectiveness of
continuity of care.

Implications of the review for practice and research
Practice: The authors did not state any implications for practice.

Research: The authors stated that well-designed studies that define the type of continuity measured and are precise about the value of outcomes measured are needed. They recommended that before-and-after studies should be conducted since primary care changes may provide more evidence of the effectiveness of continuity.

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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.