Multiprofessional interventions to improve patient adherence to cardiovascular medications

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CRD summary
This review concluded that behavioural interventions delivered by a multi-professional team appeared to offer the best opportunity to improve clinical outcomes through improvements in adherence to cardiovascular medicines. Due to concerns about the conduct of the review, these conclusions may not be reliable.

Authors' objectives
To assess the impact of interventions delivered by health care practitioners within a multi-professional team to improve patients' adherence to cardiovascular disease medications in community, primary care and outpatient settings

Searching
PubMed, MEDLINE, CINAHL, EMBASE, International Pharmaceutical Abstracts (IPA) and The Cochrane Library were searched from 1994 up to December 2010 for articles published in English. Search terms were reported. Google Scholar was also searched. Bibliographies of retrieved articles were scanned for related studies.

Study selection
Eligible study types were cluster randomised trials, individually randomised controlled trials (RCTs) and non-randomised studies. Eligible participants were health care professional teams who provided interventions in a primary care, outpatient or community setting for non-hospitalised adult patients diagnosed with cardiovascular disease. Any intervention designed to enhance adherence to medications was eligible including informational, behavioural and combined informational and behavioural interventions delivered by at least two health care professionals. Control groups had to receive no intervention or 'usual care'. Adherence to medications was as defined by individual study authors. Other clinical outcomes such as blood pressure and lipids were also included.

Most of the included studies took place in community settings. Interventions were delivered by a variety of practitioners. Most interventions were delivered by a clinical pharmacist after discussion of a specific care plan with the patients' physician. Health care practitioners received varied training for the intervention including educational lectures and interactive workshops. Participant and patient gender and age were not reported. In many of the included studies, adherence was not the primary outcome. A wide variety of measurement methods and definitions for adherence were used.

The authors did not state how studies were selected for the review or how many reviewers were involved in study selection.

Assessment of study quality
The authors did not report an assessment of study quality.

Data extraction
The authors did not report how data were extracted for the review or how many reviewers were involved in data extraction.

Methods of synthesis
The authors conducted a narrative synthesis.

Results of the review
Sixteen studies, published in 17 articles, were included in the review (4,259 participants, range 50 to 712). One study was of a single group pre-post design and the remainder were RCTs. Study duration ranged from 16 weeks to 27 months.

Seven studies evaluated informational interventions. Two studies found improved adherence to medications, but the results were not statistically significant. Five studies of informational interventions showed significant improvements on
reaching target clinical outcomes.

All three behavioural interventions improved both adherence and clinical outcomes.

None of the combined informational/behavioural interventions showed improved adherence to medication, but all showed significant improvements in clinical outcomes.

**Authors' conclusions**

Behavioural interventions delivered by a multi-professional team appeared to offer the best opportunity to improve clinical outcomes through improved medication adherence. Whether interventions delivered by a multi-professional team were more clinically effective than those delivered by a single health care professional remained to be tested.

**CRD commentary**

The review was underpinned by clear inclusion criteria and a search of a range of resources. However, unpublished material was not eligible for the review, which raised the possibility of publication bias. The authors did not report efforts to minimise error and bias in the conduct of the review.

Study quality was not assessed, so the reliability of the included studies was unclear. A narrative synthesis appeared to be appropriate. It should be noted that adherence was not always the primary outcome for the studies included in this review, so they may have been underpowered to detect an intervention effect.

Given these concerns, the authors' conclusions may not be reliable.

**Implications of the review for practice and research**

**Practice:** The authors did not state any implications for practice.

**Research:** The authors stated that whether interventions delivered by a multi-professional team were more clinically effective than those delivered by a single health care professional remained to be tested.

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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.