Case management used to optimize cancer care pathways: a systematic review

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CRD summary
This review examined the effect of case management on the care of cancer patients. Given the paucity of data and potential methodological biases, the authors statement that no conclusions could be drawn regarding the effect of case management on cancer patient care appears appropriate.

Authors' objectives
To summarise the effectiveness of case management as a method for optimising care of patients being treated for cancer.

Searching
PubMed, EMBASE, Web of Science, CINAHL and The Cochrane Central Register of Controlled Trials (CENTRAL) were searched from inception to August 2008 for published papers. Search terms were reported. Language was limited to English, Norwegian, Swedish or Danish.

Study selection
Eligible studies were randomised controlled trials (RCTs) in which case management was used as an intervention to support, inform and educate cancer patients with a view to improving subjective or objective quality outcomes. Case management was defined by the authors to include multidisciplinary collaboration and care co-ordination, including in-person meetings between the patient and the case manager. Studies centred on cancer screening or palliative care were excluded.

The demographics of patients in the included studies were highly variable and included patients with breast or lung cancer only, different cancer types and other advanced illnesses. Interventions varied widely between studies and included advanced practice nursing, home care interventions, care co-ordination and nurse-led follow-up. The duration of the intervention, outcomes measured and tools used for such measurement differed between studies and included survival, physical function, quality of life and patient satisfaction.

Three reviewers independently assessed the studies for inclusion in the review. Disagreements were resolved by consensus.

Assessment of study quality
A variety of criteria derived from the CONSORT (Consolidated Standards of Reporting Trials) statement were used to assess validity. These included sample size calculation, recruitment, allocation concealment and blinding, patient flow and treatment of non-participants or drop-outs.

One reviewer performed the validity assessment. This was then checked by two other reviewers.

Data extraction
Data were extracted to provide a descriptive overview of the characteristics of the case management models, outcomes of interest, statistical methods used and results of the intervention.

One reviewer was responsible for data extraction. This was then checked by two other reviewers.

Methods of synthesis
Studies were described narratively due to a high level of heterogeneity in many aspects of the included studies. Additional data were presented in tables.
Results of the review
Seven RCTs were included (n=1,823)

Quality: Overall the authors described study validity as inadequate with validity elements being inadequately reported in most RCTs. Three RCTs described method of allocation concealment, three RCTs described blinding of outcome assessors and three RCTs described withdrawals and dropouts. Patient flows were described as being incomprehensible in all but one RCT.

Patient-reported quality of life was reported to be improved (three RCTs), as was patient satisfaction (three RCTs). Other results were reported in tables in the review.

Authors' conclusions
Due to the scarcity of papers included (seven), significant heterogeneity in target group, intervention setting, outcomes measured and methodologies applied, no conclusions could be drawn about the effect of case management on cancer patient care.

CRD commentary
This review addressed a clear research question. Several relevant sources were searched to identify potential studies. Specific language limitations were included and no apparent attempts were made to locate unpublished material, which meant that language and publication bias could not be ruled out. Appropriate methods were used to reduce reviewer error and bias. Inclusion criteria were specified, but the lack of a standard definition of case management and of the tools used to assess outcome meant that included studies were highly divergent. It was notable that there were validity issues with all included papers. Given the paucity and potential methodological biases of the included studies, the authors' statement that no conclusions could be drawn regarding the effect of case management on cancer patient care appears appropriate.

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

Research: The authors stated that further evaluations of case management in cancer patient care were needed. Future research needed to focus on the elimination of the “black box” through thorough descriptions and reporting of interventions. The authors recommended following the Medical Research Council framework when designing and evaluating complex interventions.

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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.