Effectiveness of specialized palliative care: a systematic review

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**CRD summary**
This review evaluated the effectiveness of specialised palliative care for terminally ill patients. The authors concluded that the existing evidence does not conclusively support specialised palliative care programmes, and that further research is required to rigorously evaluate the potential benefits of these interventions. Overall, this was a well-conducted review with appropriately cautious conclusions.

**Authors' objectives**
To systematically review the effectiveness of specialised palliative care for terminally ill patients.

**Searching**
MEDLINE, Ovid HealthSTAR, CINAHL, EMBASE and the Cochrane CENTRAL Register were searched from inception to January 2008; the keywords were reported. Reviewers also handsearched the references of all retrieved articles.

**Study selection**
Only randomised controlled trials (RCTs) were eligible for inclusion in this review. The intervention/population of interest (specialised palliative care) was defined as professionals providing comprehensive care for patients with terminal illnesses; the included studies had used multidisciplinary teams, nursing interventions and care-coordinating services. The included populations consisted mostly of cancer patients. Eligible outcomes included quality of life (QoL), satisfaction with care and economic cost. Studies that evaluated only a single QoL component were excluded.

The authors did not state how the papers were selected for the review, or how many reviewers performed the selection.

**Assessment of study quality**
Included papers were assessed on 25 specified criteria adapted from various published checklists (full details given). The criteria were piloted before use, and scored for both quality of methods and quality of reporting. Each item could be given 4, 2 or 0 points, giving a maximum possible score of 100.

Two reviewers independently carried out the validity assessment, with any discrepancies resolved by consensus or through discussion with a third reviewer where necessary.

**Data extraction**
Two reviewers independently extracted the data using a standardised data extraction form; any differences in opinion were resolved by discussion. Where included studies were covered by multiple publications, the maximum amount of data was extracted using all sources.

**Methods of synthesis**
A narrative synthesis was performed to take account of the between-study heterogeneity; this analysis took study power and methodological quality into account. The results were summarised for each of the key outcome areas: QoL, satisfaction with care and economic cost.

**Results of the review**
A total of 22 RCTs covering the years 1984 to 2007 were included in this review. The median sample size was 204 (range: 69 to 4,804). Eighteen studies were based in the USA, four in the UK, one in Canada and one in Norway.

Eleven studies scored 60 points or more out of a possible 100 on the quality assessment. Most of the studies were small and likely to be underpowered.
QoL (13 RCTs): 9 RCTs showed no significant difference between specialist palliative care and control treatments, one favoured the control and three favoured the intervention.

Symptoms (14 RCTs): one RCT demonstrated significant benefits for the palliative care group for any measured single symptom, while three found a benefit of palliative care for reduction of symptom distress but not symptom severity.

Patient satisfaction with care (10 RCTs): one RCT showed a significant difference between groups in favour of the intervention at 30 days but not at 60 days.

Caregiver satisfaction (10 RCTs): 7 RCTs reported significant improvements in the intervention group.

Cost information
Direct costs (7 studies): one RCT reported significant reductions in costs for the intervention group, two reported decreased hospital costs but increased home costs in the intervention arms, and the only UK trial found no significant differences between the groups.

Use of health care services (16 studies): several trials reported reduced use of health care services in the intervention groups, including hospice enrolment (1 RCT), acute care admission (2 RCTs), duration of acute care stay (2 RCTs) and emergency department visits (2 RCTs).

Authors’ conclusions
The existing evidence does not conclusively support specialised palliative care programmes. Further research is required to rigorously evaluate the potential benefits of these interventions.

CRD commentary
This review addressed a broad question with appropriate selection criteria focusing on RCT evidence. The population was terminally ill patients without further restrictions; most of the included patients suffered from cancer. The searches were fairly comprehensive: there was no mention of language restrictions but the reviewers did exclude a Chinese paper. The inclusion of studies regardless of language is advisable to avoid language bias. Although the searches did not cover unpublished data, this possible publication bias was not investigated further in the review. The review process was carried out in duplicate and well-reported, and therefore likely to have reduced error and bias. The quality assessment was carried out using appropriate criteria but only a summary score was reported for each study, and while individual aspects of validity were dealt with in the text of the paper, it was unclear which studies were judged to be largely free of bias overall. The synthesis was appropriately divided up by outcome area. Given the variety of care programmes and terminal illnesses it would have been useful to have seen the results further divided along these areas. Overall, this seems to be a well-conducted review with appropriately cautious conclusions and recommendations for future research.

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

Research: The authors stated that further large RCTs, evaluating a standardised palliative care intervention using specifically constructed measures, are required.

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