

Evaluating innovation in the care of Canada's frail elderly population

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Case management, which may be defined minimally as the coordination of health and social services, is a strategy that has been used in various health jurisdictions to improve health outcomes and reduce inappropriate utilization of hospital and institutional services. Evaluation of case management coordinated by a visiting nurse has been carried out in several countries using different methodologies, with ambiguous results.¹⁻³

In this issue (page 497) Dawn Dalby and associates⁴ report the results of their randomized controlled trial examining the impact of preventive home visits by a primary care nurse compared with usual care on the combined rate of death and admission to an institution among frail elderly people in the community. A screening questionnaire identified eligible subjects 70 years of age and older on the roster of 2 family physicians affiliated with a health services organization. Subjects were eligible if they were at risk for sudden deterioration in their health (they reported functional impairment, or admission to hospital or bereavement in the previous 6 months). Those assigned to the intervention group were visited by a nurse, who assessed their health status and, together with the primary care physician, the patient, the family, the caregiver and other health care professionals, developed a care plan. The nurse returned for follow-up visits and made phone calls as needed over 14 months to reassess, provide vaccinations, monitor, promote health and provide psychosocial support. The nurse acted as case manager with the objective of integrating community services and agencies into the participant's care plan.

Overall, the study failed to show any statistically significant effect of the intervention on the main outcome measures. Not only was there no significant benefit, surprisingly there was a trend toward an increase in the combined rate of death and admission to an institution and an increase in the length of hospital stay in the intervention group.

Interestingly, in a subgroup analysis the intervention did succeed in considerably improving the rates of vaccination for influenza and pneumonia. As well, the visiting nurse identified important, previously unreported, medical problems, particularly acute medical problems such as urinary tract infection, gastroenteritis, chest infection and viral illnesses.

However, these same positive results also raised important questions concerning the accessibility of care provided by family physicians. One would expect that, in a capitated primary care practice, acute medical problems would be recognized by the physician and that vaccination rates would be high. As well, because this trial targeted frail elderly people and functional impairment was an inclusion criterion, one would have expected that the visiting nurse in this trial to have uncovered disabilities in activities of daily living, unmet needs and deficiencies in the health care system in coordinating medical and social care.

The results reported by Dalby and associates, showing no statistically significant effect of the intervention on the main outcome measures, raise questions about the nature of the intervention and the case management and about the relationship of the visiting nurse to the other health care professionals and components of the health care system. Although the visiting nurse developed the care plan in coordination with the physician, the patient, the caregiver and community resources, it does not appear that the nurse was an integral part of a multidisciplinary team. What was the nature and frequency of contact between the nurse and the health care professionals and caregivers? Did the nurse, therefore, have sufficient credibility and authority? Was this person seen as someone who would facilitate the organization of care or as one more "provider" to deal with? As well, it does not appear that the nurse maintained continuing clinical involvement with patients admitted to hospital clinical responsibility for or had the capacity or authority to mobilize resources such as home care or alternative housing, which could have helped to shorten stays in hospital and in institutions as well.

Frail elderly people are a particularly vulnerable group, and many suffer from complex acute and chronic medical problems and functional disabilities. The social support networks are often overextended or at risk of breaking down.⁵ These characteristics can easily lead to increased use of medical and social resources. These people, therefore, need a complex and flexible combination of medical and social interventions. Results of previous case-management studies⁶ suggest that it is not sufficient simply to "add on" case management without changing the organization of delivery of care and the relationship between continuing care and acute care.⁷

Important lessons can be drawn from Dalby and associates' trial. The demographic imperative and the difficulty of our health care system in responding to the needs of frail elderly people in a cost-effective manner emphasize the importance of intervention trials in order to understand and improve the organization and delivery of care. Innovative projects should be supported by proper evaluation, and those found to be effective should be implemented. However, if we are going to be able to draw valid conclusions, intervention trials need to be well planned, with the necessary funding that will allow sufficient enrolment and follow-up.

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