

Resource utilization and cost analysis of home-based palliative care service provision: The Niagara West End-of-Life Shared Care Project

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Abstract: **Background:** Increasing emphasis is being placed on the economics of health care service delivery – including home-based palliative care.

Aim: This paper analyzes resource utilization and costs of a shared-care demonstration project in rural Ontario (Canada) from the public health care system's perspective.

Design: To provide enhanced end-of-life care, the shared-care approach ensured exchange of expertise and knowledge and coordination of services in line with the understood goals of care. Resource utilization and costs were tracked over the 15 month study period from January 2005 to March 2006.

Results: Of the 95 study participants (average age 71 years), 83 had a cancer diagnosis (87%); the non-cancer diagnoses (12 patients, 13%) included mainly advanced heart diseases and COPD. Community Care Access Centre and Enhanced Palliative Care Team-based homemaking and specialized nursing services were the most frequented offerings, followed by equipment/transportation services and palliative care consults for pain and symptom management. Total costs for all patient-related services (in 2007 \$CAN) were \$1,625,658.07 – or \$17,112.19 per patient/\$117.95 per patient day.

Conclusion: While higher than expenditures previously reported for a cancer-only population in an urban Ontario setting, the costs were still within the parameters of the US Medicare Hospice Benefits, on a par with the per diem funding assigned for long-term care homes and lower than both average alternate level of care and hospital costs within the Province of Ontario. The study results may assist service planners in the appropriate allocation of resources and service packaging to meet the complex needs of palliative care populations.

Strengths: This was a Canadian study which included cancer and non-cancer patients, used of validated tools, and had some interesting insight into gender and diagnosis specific expenditures.

Weaknesses: the limitations of the study as correctly identified by the authors included retrospective study design, limited generalizability of the findings to other populations, small patient numbers and limited follow up to 15 months. Also, lack of consideration for other costs as admission to other hospitals; family/ caregivers' financial burden, indirect costs, out of pocket expenses are within the limitations of this study.

Relevance to Palliative Care: This Canadian study confirms findings from other international studies indicating that providing end of life care at home is less costly than alternate level of care or hospital-based care. As many patients express a wish to remain at home for as long as possible and/or die at home, studies like this can help policy makers with resource allocation conducive to this goal with increased patient satisfaction and decreased burden to the health care system. However, the economic and personal impact of caregiving for the patient's family needs to be characterized further, ensuring adequate government support in order to make this feasible and minimizing the burden to the informal care providers.