

End-of-Life Cancer Care: Temporal Association between Homecare Nursing and Hospitalizations

Reference: Seow Hsien, Sutradhar Rinku, McGrail Kim, Fassbender Konrad, Pataky Reka, Lawson Beverley, Sussman Jonathan, Burge Fred, and Barbera Lisa. *Journal of Palliative Medicine*. February 2016, 19(3): 263-270. doi:10.1089/jpm.2015.0229.

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ABSTRACT Objectives: Most cancer patients want to die at home, but scalable models to achieve this are not well researched. Our objective was to investigate the temporal association of homecare nursing, especially by generalist nurses, with reduced end-of-life hospitalizations. **Methods:** We conducted a retrospective Canadian cohort study of end-of-life cancer decedents during 2004–2009 in Ontario (ON), Nova Scotia (NS), and British Columbia (BC), which have homecare systems that use generalist nurses to provide end-of-life care. Each province linked administrative databases to examine the association during the last six months of life between the homecare nursing rate and the hospitalization rate in the subsequent week, using standardized definitions and controlling for other covariates. We dichotomized nursing into standard and end-of-life care intent. **Results:** Our cohort included 83,827 cancer decedents. Approximately 55% of decedents were older than 70 and the most common cancer was lung. Nearly 85% of the cohort had at least one hospital admission. Receiving end-of-life compared to standard homecare nursing significantly reduced a patient's hospitalization rate by 34%, 33%, and 17% in ON, BC, and NS. In the last month of life patients having a standard nursing rate of greater than five hours compared to one hour per week had a significantly lower hospitalization rate (relative reduction of 15%–23%) across the three provinces. **Conclusions:** Our study showed a protective effect of nursing with an end-of-life intent on hospitalization across the last six months of life and of standard nursing in the last month. This finding's generalizability is strengthened, since the trends were similar across three different homecare systems.

Strengths

Completing a large cohort study using multiple data bases in 3 provinces is a significant accomplishment given the challenges in getting access to the information.

Limitations

Well documented in the manuscript and includes: - did not study care received from other providers, such as from personal care support workers and home visits from family physicians; the impact of interdisciplinary team care, such as a regional specialized palliative care team; the administrative data is unable to measure patient preferences, the quality of nursing care provided, or the appropriateness of any hospitalizations.

Relevance:

It is unclear whether this a true nursing support effect or simply nursing hours increased to patients identified as desiring to remain at home. Nevertheless it does provide some justification to advocate for more community resources as a cost effective health care approach.