Predictors of emergency room visits or acute hospital admissions prior to death among hospice palliative care clients in Ontario: a retrospective cohort study.

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Abstract:
Background: Hospice palliative care (HPC) is a philosophy of care that aims to relieve suffering and improve the quality of life for clients with life-threatening illnesses or end of life issues. The goals of HPC are not only to ameliorate clients; symptoms but also to reduce unneeded or unwanted medical interventions such as emergency room visits or hospitalizations (ERVH). Hospitals are considered a setting ill-prepared for end of life issues; therefore, use of such acute care services has to be considered an indicator of poor quality end of life care. This study examines predictors of ERVH prior to death among HPC home care clients. **Methods:** A retrospective cohort study of a sample of 764 HPC home care clients who received services from a community care access centre (CCAC) in southern Ontario, Canada. All clinets were assessed using the Resident Assessment Instrument for Palliative Care (interRAI PC) as part of normal clinical practice between April 2008 and July 2010. The Andersen-Newman framework for health service utilization was used as a conceptual model for the basis of this study. Logistic regression and Cox regression analyses were carried out to identify predictors of ERVH. **Results:** Half of the HPC clients had at least one or more ERVH (N=399, 52.2%). Wish to die at home (OR =0.54) and advanced care directives (OR = 0.39) were protective against ERVH. Unstable heatlh (OR = 0.70) was also associated with reduced probability, while infections such as prior urinary tract infetions (OR =2.54) increased the likelihood of ERVH. Clients with increased use of formal services had reduced probability of ERBH (OR = 0/55). **Conclusions**: Findings of this study suggest that predisposing characteristics are nearly as important as need variables in determining ERVH among HPC clients, which challenges the assumption that need variables are the most important determinants of ERVH. Ongoing assessment of HPC clients is essential in reducing ERVH, as reassessments at specified intervals will allow care and service plans to be adjusted with clients' changing health needs and end of life preferences.

Comments:
Strengths:
- Large data bank not collected with study in mind (no chance of bias).
- Potential to include many variables

Limitations:
- Correlation only can be implied.
- Cannot incorporate dynamic nature of patient and family wishes, or changing goals of care.
- Single observation/outcome variable for multiple independent variables; very much not a controlled study.
- Clients who were assessed closer to death likely had more clinical symptoms than those further away; i.e. some variables such as pneumonia are dynamic, other variables such as prior comorbidities are static.

Relevance to Palliative Care:
- Some predisposing characteristics appear to be strongly correlated with not requiring an ERVH, more than just dynamic need variables.
- Thus managing, for example, infection, as well as increasing home care visits and managing expectations could potentially impact ERVH in patients receiving palliative care, however access to resources like hospice beds or home visits not well demarcated.
- No change to current management. Could outline areas for potential future studies.