

## Journal Watch

### **Trends in the place of death of cancer patients, 1992-1997.**

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### **Abstract:**

Background: Although many patients with cancer would prefer to die at home, most die in hospital. We carried out a study to describe the yearly trends in the place of death between 1992 and 1997 and to determine predictors of out-of-hospital death for adults with cancer in Nova Scotia.

Methods: In this population-based study, we linked administrative health data from 2 databases – the Nova Scotia Cancer Centre Oncology Patient Information System and the Queen Elizabeth II Health Sciences Centre Palliative Care Program – for all adults in Nova Scotia who died of cancer from 1992 to 1997. We also used grouped neighbourhood income information from the 1996 Canadian census. Death out of hospital was defined as death in any location other than an acute care hospital facility. We used logistic regression analysis to identify the odds of dying out of hospital over time and to identify factors predictive of out-of-hospital death.

Results: A total of 14,037 adults died of cancer during the study period. The data for 101 people were excluded because of missing information regarding place of death. Of the remaining 13,936 people, 10,266 (73.7%) died in hospital and 3,670 (26.3%) died out of hospital. Over the study period the proportion of people who died out of hospital rose by 52%, from 19.8% (433/2,182) in 1992 to 30.2% (713/2,359) in 1997. Predictors associated with out-of-hospital death included year of death (for 1997 v. 1992, adjusted odds ratio [OR] 1.8, 95% confidence interval [CI] 1.5 –2.0), female sex (adjusted OR 1.2, 95%, CI 1.1-1.3), age (for  $\geq 85$  v. 18-44 years, adjusted OR 2.2, 95% CI 1.7-2.8), length of survival (for 61-120 v.  $\leq 60$  days, adjusted OR 2.2, 95%, CI 1.8-2.6; for 121-180 v.  $\leq 60$  days, adjusted OR 2.5 95% CI 2.2-2.8), having received palliative radiation (adjusted OR 0.8, 95% CI 0.7-0.9) and region of death (Cape Breton v. Halifax, adjusted OR 0.5, 95% CI 0.5-0.6). Among Halifax residents, registration in the Palliative Care Program was also a significant predictor of out-of hospital death (adjusted OR 1.4, 95% CI 1.2-1.7). Tumour group, neighbourhood income and residence (urban v. rural) were not predictive of out-of-hospital death in multivariate analysis.

Interpretation: Over time, more patients with cancer, especially women, elderly people and people with longer survival after diagnosis, died outside of hospital in Nova Scotia.

## **Comments:**

### Strengths/uniqueness:

The use of administrative databases resulted in this study having a large cohort of patients. The authors were careful to include well-described characteristics in their attempt to assess predictors of location of death.

### Weaknesses:

The overall access to the palliative care program in Halifax for the overall 5-year period remained low at 52%. The positive association between access to palliative care and a home death may at least partially be a reflection of limited hospital beds. Forcing a home death on patients and families due to a lack of other options such as in-patient hospices or palliative care units needs to be avoided.

### Relevance to Palliative Care:

All palliative care programs need to consider similar examinations of outcomes and predictors of death location as we meet the challenge of improving care at the end of life.