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Evaluating the impact of timing of initiation of community-based palliative care on use and cost of unplanned acute care services at the end of life: A study using linked hospital and community based provider service data

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Introduction

Expected time to death is often used to determine eligibility to publicly funded community-based palliative care (CPC) because most acute care costs in the end-of-life period are incurred immediately prior death. We know CPC use reduces acute care costs but the impact of timing of initiation is unknown.

Objectives and Approach

We explored the association between timing of CPC initiation and unplanned hospital use, over the final year of life for Western Australian cancer decedents who died between 1/1/2001 and 31/12/2011 using linked Cancer Registry, Mortality System, Hospital Morbidity Data Collection, Emergency Department (ED) Data Collection and CPC records. The relationship between first-time use of CPC and unplanned hospitalisations and ED presentations was evaluated using multivariable negative binomial regression and Cragg-hurdle models. The exposure was month of CPC initiation (adjusted for intensity of use); outcomes were the rate, length of stay and cost of unplanned hospitalisations and emergency department presentations.

Results

Of the 28,331 decedents residing in the CPC catchment area, 16,439 (58%) accessed CPC, mostly (64%) in the last three months of life. Initiation of CPC prior to the last six months of life was associated with a lower mean number of unplanned hospitalisations in the last six months of life (1.4 versus 1.7 for initiation within six months of death); associated average costs were also lower ((AU\$, 2012) 12,976 versus \$13,959). While patients initiating CPC earlier showed a trend toward fewer hospital admissions, earlier initiation was associated with a higher cumulative and average length of stay. Indirect adjustment for admission complexity suggests that this may be due to more complicated indications.

Conclusion/Implications

This study provides more detail to guide policy around timing of access to CPC. Our results argue against restricting access to the final few months of life, as earlier initiation may result in fewer and lower the cost of unplanned hospitalisations and ED presentations at the very end of life.