Impact of intensity and timing of integrated home palliative cancer care on end-of-life hospitalization in Northern Italy

Support Care Cancer. 2017 Apr;25(4):1201-1207

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PURPOSE. The Veneto Region implemented a novel integrated home-based palliative cancer care (HPCC) program embedded in primary care. We examined the impact of timing and intensity of this program on the quality of end-of-life (EOL) care.
METHODS. We selected adult cancer patients died in the Veneto Region between March and December 2013, excluding those died from haematological malignancies as well as the very elderly (85+ years). We retrieved the claim-based data on hospitalization and homecare visits, and defined two observation windows: 90 to 16 days before death to examine intensity of HPCC exposure, and the last 15 days of life to examine EOL outcomes, including hospital death, any hospital stay for medical reasons and hospital stay ≥7 days for medical reasons. Multivariate analysis was conducted using a Poisson model.
RESULTS. Among the 2211 adults who died of solid tumours and received 1+ homecare visits during the exposure period, 1077 (48.7%), 552 (25.0%) and 582 (26.3%) had 0.1-1.9, 2-3.9 and 4+ homecare visits/week, respectively. The median duration between an HPCC home visit and death was 92 days (IQR 42-257 days). Hospital death occurred in 856 (38.7%) patients, while 1087 (49.2%) and 556 (25.1%) had a hospital stay and a hospital stay ≥7 days during the exposure period, respectively. In the multivariate analysis, a greater intensity of integrated HPCC (4+ visits/week) was significantly associated with a lower risk of hospital death (relative risk [RR] = 0.67, 0.59-0.76), any hospital stay (RR = 0.69, 0.62-0.77) and hospital stay ≥7 days for medical reasons (RR = 0.59, 0.49-0.71). A late activation (≤30 days before death) of HPCC was also associated with increased both hospital stay (RR = 1.26, 0.11-1.42) and hospital stay ≥7 days (RR = 1.25, 1.01-1.54).
CONCLUSIONS. A greater HPCC program intensity reduces the risk of hospital death and hospital stay in the end-of-life. An early activation of this program can contribute to improve these EOL outcomes.

https://link.springer.com/article/10.1007%2Fs00520-016-3510-x