Economic Evaluation of Specialist Inpatient Palliative Care Consultation Teams: Cost Effect Estimates Vary by Treatment Timeliness (TH306-A)

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Objectives

- Understand that previous economic evaluations of in-hospital palliative care consultation teams have defined treatment as a consult at any time during hospitalization.
- Understand the variance in timeliness of in-hospital palliative care consultation.
- Understand that timeliness of consult has a major impact on treatment effect on cost; earlier consult is associated with greater cost reduction.

Original Research Background: Economic evaluations of specialist inpatient palliative care consultation teams (PCCTs) have consistently defined treatment as binary (seeing a PCCT at any time during hospitalization). However, consults at any time during hospitalization may not be equal or comparable, and treatment effect may vary accordingly.

Research Objectives: To estimate the effect of consultation timeliness on hospital cost for patients with advanced cancer.

Methods: Using a prospective, observational design, data were collected on patients admitted with advanced cancer at four hospitals in a 4-year period (n=969, of whom 256 saw a PCCT at any time during their hospital stay). Four binary treatment variables were generated according to timeliness. These variously defined treatment as a PCCT (a) at any time (100% of PC patients), (b) within 10 days of admission (95%), (c) within 7 days (90%), and (d) within 2 days (75%). Generalized linear models (GLMs) with a gamma distribution and a log link were used to regress daily and total cost of hospital stay against each treatment variable, 33 baseline socioeconomic and clinical covariates, and dummy variables for each site. Propensity score weights were calculated to balance the intervention and control arms on the basis of observed covariates.

Results: Treatment reduces cost within 10 days of admission (p<0.05), and that effect is larger for 7 days (p<0.03) and 2 days (p<0.01). The treatment effect for PCCT overall also appears cost saving, although this is masked in some models by a small number of late consults.

Conclusions: Timeliness of treatment has an important effect on results. Earlier consultation is associated with larger treatment effect.

Implications for Research, Policy, or Practice: PCCTs should be involved in patient care early in the hospitalization to maximize scope for treatment effect on cost. Economic evaluations of inpatient palliative care should consider incorporating timeliness into analysis as these not only have an important effect on results but also model selection.