Economic Evaluation of Specialist Inpatient Palliative Care Consultation Teams: Treatment Effect Varies by Patient Complexity (TH306-C)

Peter May, Trinity College Dublin, Dublin, Ireland
R. Sean Morrison, MD FAAHPM, Icahn School of Medicine at Mount Sinai, New York, NY

Objectives

- Understand that patient-level factors determine a high level of cost in many health economics studies and that previous economic evaluations of in-hospital palliative care consultation teams have not addressed patient-level factors.
- Understand that palliative care consult treatment effect on cost varies according to individual patient complexity.
- Understand the implications of these findings for clinical practice and for future palliative care research.

Original Research Background: Patient-level factors may determine a high proportion of hospital costs in providing care to patients with serious illness. For example, economic evaluations taking into account individual complexity may offer new and valuable information for understanding variations in cost. Studies of specialist inpatient palliative care consultation teams (PCCTs) have yet to attempt this.

Research Objectives: To compare how treatment effect of PCCT on hospital cost varies according to patient complexity.

Methods: Using a prospective, observational design, data were collected on patients admitted with an advanced cancer diagnosis at four hospitals in a 4-year period (n=1,023). Treatment was defined as seeing a PCCT within 3 weeks of hospital admission (n=271); all other patients were put into the control arm (n=762). Overlapping subsamples were created according to number of comorbidities on the Elixhauser Index at baseline: (a) All Patients (n=1023); (b) 3< = Elixhauser total (n=680); (c) 4< = Elixhauser total (n=489); (d) 5< = Elixhauser total (n=300). 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. Subsample specific propensity scores were calculated to balance the intervention and control arms on the basis of observed covariates.

Results: Treatment effect was cost reducing for all subsamples. The estimated $ treatment effect and statistical significance were greatest for (d), then (c), then (b), then (a).

Conclusions: Individual patient complexity influences the economic impact of PCCTs. Higher patient comorbidities are associated with larger treatment effect.

Implications for Research, Policy, or Practice: PCCTs should be involved in the care of complex patients to maximize treatment effect on cost. In our study only 34% of patients with four or more comorbidities saw a PCCT. Economic evaluations of palliative care interventions should consider patient-level factors, which may determine a high proportion of cost of care.