Palliative Care Improves Healthcare Utilization in Cancer Patients Near End of Life

Lin Wang,1 Leslie Piet,1 Catherine M. Kenworthy,1 Sydney Dy2

1Johns Hopkins HealthCare, 2Johns Hopkins Bloomberg School of Public Health, Baltimore, Maryland, USA

Research Objective
To investigate the effect of palliative-care case management on near-end-of-life healthcare utilization in Medicaid beneficiaries with a cancer diagnosis.

Omega Life Program
The Omega Life Program (OLP) is a case management program of palliative care, implemented by Johns Hopkins HealthCare, a health plan administration organization.

Palliative care is an approach that improves the quality of life of patients and their families facing the problems associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual. (WHO, 2012)

Case management is a collaborative process of assessment, planning, facilitation, care coordination, evaluation, and advocacy for options and services to meet an individual’s and family’s comprehensive health needs through communication and available resources to promote quality cost-effective outcomes. (CMSA, 2009)

OLP intervention is composed of the following components:
1. Needs Assessments: A holistic and comprehensive evaluation of a patient and caregivers. The assessment evaluates needs in physical/medical, psychosocial, cultural, spiritual, financial, legal care, and caregiver support.
2. Symptom Management: Working with healthcare providers, caregivers, and patients to identify and minimize troublesome symptoms that are associated with either the disease or its treatment.
3. Care Coordination: Facilitating and organizing all the care services rendered by various providers for a particular patient, timely and effectively.
4. Psychosocial Care: Helping the patient improve coping style, resiliency, and ability to adapt to life situations.
5. Spiritual Care: Supporting the patient in addressing such issues as the meaning of life, suffering, dying, and death. In particular, attention is paid to patient’s unanswered questions or concerns about their spiritual life.
6. Advance Care Planning: Educating the patient about advance-care planning; assessing patient’s wishes; providing sources of information on medical, financial, and legal issues; and facilitating the preparation of legal documents as the patient desires.
7. Caregiver Support: Reducing strain and burden on the caregiver, preventing caregiver from burnout, facilitating caregiver’s retaining caring skills and coping strategies to sustain themselves in caregiving and through bereavement.

Study Design
1. Populations:
    * Omega Life Program (OLP) groups (intervention) - Medicaid health plan (Priority Partners MCO) beneficiaries who met all the following inclusion criteria:
        ✓ decease date within the study period
        ✓ OLP referral date within the study period
        ✓ cancer diagnosis at OLP referral
        ✓ no hospice selection at OLP referral
        ✓ age between 18 and 85 at OLP referral, inclusive
        ✓ continuous enrollment in Priority Partners during the period between the day of OLP referral and the day of death
        ✓ no secondary insurance
        ✓ OLP enrollment date at least 7, 14, 30, or 60 days prior to death (7-, 14-, 30-, 60-day groups, respectively)
    * No Palliative Care (NPC) groups (comparison) - Same as the OLP group except that the study subjects were referred to OLP at least 7, 14, 30, or 60 days prior to death, but NOT enrolled in OLP.
3. Data Sources: Administrative claims data and care management data.
4. Analysis: Retrospective analysis of observational data was conducted. Linear regression was applied to continuous outcome variables, while logistic regression was applied to binary outcome variables. Outcomes were adjusted with three covariates: gender, age, and OLP referral days before death. OLP effects on healthcare utilization were assessed in four intervals between OLP referral/enrollment and death (utilization periods): 7, 14, 30, and 60 days, for each corresponding study group defined in the Populations section.

Principal Findings
1. OLP enrollees were less likely to be admitted to ICU than those in the comparison group, though the difference was not statistically significant.
2. For OLP enrollees with 30 or more days of enrollment, the inpatient admission rate during the last 30 days of life was about 15% less than those in the comparison group. However, such difference diminishes in the last 7 days of life for OLP enrollees who were enrolled in OLP at least 7 days before death.
3. The OLP enrollees who were admitted to hospice received longer hospice care than those in the comparison group. The difference was significant for the 14-day and 30-day groups, but not significant for the 7-day and 60-day groups.
4. The percentage of OLP enrollees who died at a hospital was 10% less than those in the comparison group. The difference was significant for the 7-day, 14-day, and 30-day groups, but not significant for 60-day group.

OLP Workflow

OLP Workflow

Contact: Lin Wang, PhD, lwang@hhc.com

Conclusions and Implications
The results show a pattern of a lower IP admission rate (for 30 days or more OLP utilization), earlier admission to hospice (for 14 days or more OLP utilization), and higher odds of dying outside of hospital (for 7 days or more OLP utilization) in those who received OLP palliative care, as compared to those who did not receive OLP.

Our findings suggest that palliative care in community setting may facilitate proper use of healthcare services.