

In-home palliative care increased patient satisfaction and reduced use and costs of medical services

Brumley R, Enguidanos S, Jamison P, et al. Increased satisfaction with care and lower costs: results of a randomized trial of in-home palliative care. *J Am Geriatr Soc.* 2007;55:993-1000.

Clinical impact ratings: GIM/FP/GP ★★★★★☆ Cardiology ★★★★★☆ Geriatrics ★★★★★☆ Oncology ★★★★★☆ Pulmonology ★★★★★☆

QUESTION

Does an in-home palliative care (IHPC) program plus usual care increase patient satisfaction and reduce use and costs of medical services compared with usual care alone?

METHODS

Design: Randomized controlled trial.
Allocation: Concealed.*
Blinding: Blinded (data collectors).*
Follow-up period: Death or end of study period.
Setting: 2 HMOs in Hawaii and Colorado, USA.
Patients: 310 patients (mean age 74 y, 51% men) who had a primary diagnosis of congestive heart failure, chronic obstructive pulmonary disease, or cancer; had a life expectancy ≤ 12 months; had visited the emergency department or hospital within the previous year; and scored ≤ 70% on the Palliative Performance Scale.
Intervention: IHPC plus usual care (*n* = 155) or usual care alone (*n* = 155). IHPC was provided by an interdisciplinary team including the patient and family; a physician, nurse, and social worker with expertise in symptom management and biopsychosocial intervention; and other team members as needed (e.g., spiritual counselor, pharmacist, dietitian). The team coordinated care across all settings and provided assessment, planning, care delivery, follow-up, education, and support. Physicians conducted home visits and were available, along with nursing serv-

ices, on a 24-hour on-call basis. Usual care followed Medicare guidelines for home health care criteria to provide various amounts and levels of home health services, acute care services, primary care services, and hospice care.
Outcomes: Patient satisfaction, use and costs (in 2002 US\$) of medical services, site of death, and survival.
Patient follow-up: 96%.
MAIN RESULTS
 More patients in the IHPC group than the usual care group were “very satisfied” with patient care at 30 and 90 days, but groups did not differ at 60 days (Table). Fewer patients in the IHPC group visited the emergency department or were hospitalized (Table). IHPC resulted in lower mean total costs of care (\$12 670 vs \$20 222, 95% CI of the difference −\$12 411 to −\$780) and lower mean daily costs (\$95 vs \$213,

P = 0.02). Survival time was shorter in the IHPC group (mean 196 vs 242 d, *P* = 0.03 based on *t*-tests; *P* = 0.08 based on Kaplan-Meier survival analysis), but more patients in the IHPC group died at home (Table).

CONCLUSIONS

An in-home palliative care (IHPC) program plus usual care increased patient satisfaction and reduced use and costs of medical services compared with usual care alone. More IHPC patients died at home.

Source of funding: Kaiser Permanente Garfield Memorial Fund.

For correspondence: Dr. S. Enguidanos, Partners in Care Foundation, San Fernando, CA, USA. E-mail senguidanos@picf.org.

*See Glossary.

In-home palliative care (IHPC) plus usual care (UC) vs UC†

Outcomes	Follow-up (d)	IHPC	UC	RBI (95% CI)	NNT (CI)
“Very satisfied” with care	30	93%	80%	16% (6 to 21)	8 (6 to 20)
	60	92%	87%	6.1% (−7 to 12)	Not significant
	90	93%	81%	15% (3 to 21)‡	9 (6 to 49)‡
Died at home		71%	51%	36% (13 to 56)	6 (4 to 16)
RRR (CI)					
Emergency visit		20%	33%	39% (10 to 59)	8 (5 to 35)
Hospital admissions		36%	59%	39% (22 to 53)	5 (3 to 9)

†Abbreviations defined in Glossary. RBI, RRR, NNT, and CI calculated from data in article.
 ‡Calculated from data provided by author.

COMMENTARY

Home hospice has become established as an effective means of improving care for patients with terminal illness, providing better symptom management, increasing patient and family satisfaction, and providing a preferred place of death compared with usual outpatient care, including home health services. However, many patients with advanced illness continue to desire potentially life-prolonging or other therapies that do not conform to Medicare’s definition of hospice care or are not provided by traditional hospice programs. IHPC provides the supportive, interdisciplinary care typically offered by a hospice while allowing patients access to aggressive therapies; therefore, it may be a more effective means of meeting the needs of patients with terminal illness (1).
 The methodologically sound trial by Brumley and colleagues compared IHPC services with “usual” care. Patients assigned to the fully interdisciplinary in-home palliative care team had increased satisfaction, reduced use and costs of medical care, and a higher percentage of deaths in the home setting compared with usual care. However, the IHPC model used in the study limits the generalizability of these results, particularly costs and care utilization. Unlike hospice teams, the

discipline composition of palliative care teams has not been standardized, giving rise to potential variability across settings.
 The reasons for shorter survival time in the IHPC group are important unknowns, but the higher level of patient satisfaction indicates the potential for a high rate of use. Wide-scale implementation of IHPC as a care delivery model should be preceded by further evaluation of the survival difference between groups and standardization of IHPC interdisciplinary team composition. Meanwhile, application of these findings by primary care physicians could focus on suggesting IHPC as an alternative for patients with life-limiting illness who are not eligible for or interested in hospice care.

*Jennifer Chambers, MD
 Milton S. Hershey Medical Center
 Hershey, Pennsylvania, USA*

Reference

1. Means to a better end: a report on dying in America today. Robert Wood Johnson Foundation. 2002. www.rwjf.org/files/publications/other/meansbetterend.pdf (accessed on 24 September 2007).