Original Article

Clinical Trial of a Supportive Care Team for Patients With Advanced Cancer

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Abstract

Context. Encouraging use of hospice and minimizing the use of cure-oriented aggressive interventions that detract from quality of life in the last month of life are specific targets for improvement in cancer care.

Objectives. To evaluate the effect of an interdisciplinary cancer support team (CST) on quality of care and quality of life in patients with advanced cancers.

Methods. A nonrandomized clinical trial was conducted, comparing outcomes before and after the integration of an interdisciplinary CST in routine care of adults with Stage III or IV lung, gastrointestinal, or gynecologic cancer. In the control arm, patients ($n = 332$) received usual care; after the initiation of the intervention arm, eligible patients ($n = 278$) received the CST intervention. The intervention consisted of individualized care coordination, symptom management, education, psychosocial and spiritual supports, and advance care planning throughout the 15-month study period. Quality of end-of-life care was measured through an "aggressiveness of care" index. Health-related quality of life (HRQOL) was measured with the Functional Assessment of Cancer Therapy-General.

Results. There were no statistically significant differences between groups on specific indicators of quality of care. Surviving subjects with higher survival expectancy (who also reported better baseline quality of life) in the intervention arm had the greatest improvement in HRQOL scores, compared with the other three groupings of survival expectancy by treatment group (high vs. low by intervention vs. control) ($P = 0.044$).

Conclusion. Individually tailored supportive services from an interdisciplinary team are associated with improved HRQOL in some patients. This has implications for the potential benefits that can be accrued from providing intensive support to all patients, even those who may appear to be at less risk for distress. There also are important methodological considerations in using aggressiveness of care indices as a measure of quality of care. J Pain Symptom Manage 2013;46:775–784. © *2013 U.S. Cancer Pain Relief Committee. Published by Elsevier Inc. All rights reserved.*

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Accepted for publication: December 25, 2012.

0885-3924/$ - see front matter
http://dx.doi.org/10.1016/j.jpainsymman.2012.12.008

Key Words
Supportive cancer care, palliative care in cancer, aggressiveness of care index

Introduction

Cancer remains the second leading cause of death in the U.S., with more than half a million deaths having been projected for 2012.[1] Because of its prevalence, mortality rates, and frequent need for expert symptom management, cancer has been the focus of efforts to institute systematic changes in end-of-life care.[2,3] Recommendations for improving the quality of care have been operationalized by the National Quality Forum (NQF). The NQF is a nonprofit organization, comprising a variety of health care stakeholders in the U.S.; its mission is to build consensus on national priorities and goals for performance improvement, in part through developing and endorsing national consensus standards for measuring and publicly reporting on performance. In 1999, the NQF published consensus standards for quality end-of-life care for cancer patients (http://www.qualityforum.org) that can be used to assess opportunities for improvement in care through assuring access to hospice and limiting the use of aggressive cure-oriented interventions at the end of life. These standards have been used to describe trends and evaluate systems of care and include such items as the proportion of patients who received chemotherapy in the last 14 days of life, or had more than one hospitalization in the last 30 days, and the percent of patients admitted to hospice.[4–7]

Integrated coordinated models of care have been recommended to assure that patients have access to curative therapies as well as management of physical, psychological, and spiritual needs. Although there have been some encouraging reports of the effectiveness of early palliative medicine consultation with specific cancer patient populations[8] and focused psychoeducational support programs,[9] there have been few controlled trials of fully integrated and coordinated services within comprehensive cancer centers. In part, this reflects the operational difficulties of instituting major structural changes in the care delivery system and also the challenges of conducting rigorous tests of changes under real-world conditions.

This report describes a trial of integrating an interdisciplinary cancer support team (CST), composed of advanced practice nurses (APNs), social workers (SWs), and a spiritual care counselor (SCC), as part of the routine care delivery system for patients with a variety of cancer types. Extending the findings of other trials of early palliative or supportive care programs, the CST was an interdisciplinary team, designed to address both the physical (i.e., symptom) issues as well as social and spiritual concerns. The primary aim was to measure the effect of the CST, using the established NQF quality of end-of-life care indicators, on health-related quality of life (HRQOL) in a population with advanced cancer. The primary outcome was the quality of end-of-life care, including hospice use and aggressiveness of care indicators. We report on the outcomes of the trial and the implications both for cancer care delivery systems and future evaluations of palliative care programs.

Methods

Study Population

All adult patients with newly diagnosed Stage III or IV lung, gastrointestinal (GI), or gynecologic (GYN) cancer admitted to the outpatient clinic of a comprehensive cancer center were screened for eligibility. In addition to age (18 years or older) and cancer type, eligibility criteria included Eastern Cooperative Oncology Group performance status ≤ 3, capacity to provide informed consent, and intention to receive treatment at the cancer center.

A quasi-experimental design was used to measure the quality of care and quality of life outcomes associated with integration of an interdisciplinary supportive care team in routine care. With this design, subjects who were receiving "usual care" were enrolled, allocated to the control arm, and data collection begun. Once the target control arm sample had been accrued, the intervention was initiated and subsequent eligible subjects were allocated to the experimental arm. This design was chosen because of the very high likelihood of