Examining Cancer-Related Pain and Study Enrollment Challenges in the Home Care Setting

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Examine Cancer-Related Pain and Study Enrollment Challenges in the Home Care Setting

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Introduction

• Despite the availability of effective pain management techniques in the United States, relief of cancer-related pain is frequently inadequate (NCCN, 2012; ACS, 2012; APS, 2008).

• The main purpose of this pilot study was to examine cancer-related pain and quality of life (QOL) as reported by oncology patients receiving home care (HC) services. A secondary purpose was to describe study enrollment challenges encountered in the home setting and possible strategies for dealing with them.

• The study’s theoretical framework was an adaptation of Michael Harrison’s (1987) model in which the healthcare organization is conceptualized as an open system (Alley, 2001).

Study Objectives

• To describe the severity and nature of cancer-related pain experienced by oncology patients receiving HC services.

• To examine relationships selected pain and quality of life variables.

• To evaluate the feasibility and strengths/weaknesses of study protocols and improve methods/tools for future studies.

Methods

• Design: Prospective, observational cohort study using a convenience sample of oncology patients receiving HC.

• Data: Quantitative data on self-reported pain, pain management, and perceived QOL.

• Sample and Setting: 50 cancer patients receiving HC services. Inclusion criteria: current cancer diagnosis, no surgeries within past 4 weeks, and able to communicate in English.

• Self-Report Measures: 1) Cleeland’s Brief Pain Inventory (BPI), 2) Ferrans and Powers Quality of Life Index (FP-QLI), 3) European Organization for Research and Treatment of Cancer Quality of Life Questionnaires (EORTC QLQ-C30 and EORTC QLQ-C15), 4) Demographic and enrollment data.

• Procedure: 354 HC patients were screened to obtain the sample of 50 subjects. The 3 most common reasons for enrollment were: being discharged from HC (48%); not meeting inclusion criteria (17%); and declining participation (14%). The study interviewer conducted a one-hour structured in-home interview and assigned each subject a Karnofsky Performance Status (KPS) score. Subjects who agreed completed the 5-Day Pain Diary.

Results

I. Demographics

II. Selected Findings from Questionnaires and Pain Diaries

• BPI findings, particularly noteworthy relative to the study’s purposes and objectives:

  - Of the 50 subjects reporting pain in the last week, 47 (94%) rated their worst pain as ≥ 5 (0-10) scale reflecting "substantial" pain intensity ratings (Cleeland, 1994).

  - For the 40 subjects reporting pain:
    - The mean pain intensity at its worst in the last week was 6.0 (SD 2.2).
    - 79% had active opioid prescriptions.
    - 2 of 10 subjects who reported pain in the last week had at least 1 active opioid prescription.

• Selected Pain Diary Results:

  - All 50 subjects who agreed to complete the 5-Day Pain Diary rated their worst pain as ≥ 5 (0-10) scale reflecting "substantial" pain intensity ratings (Cleeland, 1994).

  - Mean pain intensity ratings were: 6.0 (SD 2.2).
  - Mean number of pain medications used during the 5 days was: 2.8。

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III. Enrollment Challenges Encountered

• Initially, the recruitment strategy was to send written study advertisements to HC patients and subsequently call those interested. This served as an “introduction,” resulting in better subject understanding of the study.

• Subject accrual took 12 months longer than anticipated. Mid-study, an IRB-approved modification in the enrollment process was implemented, which allowed the HC nurse to call the study interviewer while in the patients’ homes and have potential subjects speak with the study interviewer. This served as an “introduction,” resulting in better subject understanding of the study.

• Of the 40 subjects reporting pain in the last week, 33 (83%) rated their worst pain as ≥ 5 (0-10) scale reflecting "substantial" pain intensity ratings (Cleeland, 1994).

• Mean pain intensity ratings were: 6.0 (SD 2.2).

• Mean number of pain medications used during the 5 days was: 2.8.

Main Study Limitations

• Patients experiencing the most severe pain may not have been well represented in the study sample because of declines due to their symptom severity.

• Relationships among opioid and non-opioid analgesic use and pain intensity ratings were not examined, given that total amounts taken by subjects were not recorded in the diaries.

• In most cases, subjects were reluctant to participate in the interview, which may have prevented fully candid responses.

• To minimize the possibility of missing data, tools were not self-administered, which may have prevented fully candid responses.

• Most subjects were women and/or Caucasian.

Conclusions and Implications

• Consistent with other cancer pain studies, the majority of subjects experienced significant pain. This warrants increased intervention by healthcare providers to achieve adequate analgesia relief.

• Better education is needed for both medication use and other home-based comfort measures.

• Pain Diaries appeared easy and not burdensome for subjects to complete. Diaries provided additional information which could help healthcare providers improve cancer pain management.

• Overall, subjects were highly functional based on the KPS and BPI and were not demographically diverse. Future projects should include subjects with a broader range of pain ratings, functional abilities, and demographics, to yield more generalizable results.

• Conducting successful research projects with patient populations outside the hospital setting presents special challenges that require novel approaches.