

What's Poppin'?

Population-Based Palliative Care Research Network

WEBPAGE: WWW.UCHSC.EDU/POPCRN *** Toll Free: 866.372.9417

Volume IV, Issue 1

Spring 2003

KERNEL'S CORNER

Jean S. Kutner, MD, MSPH

This month's PoPCRN newsletter features research results from a number of recently-completed PoPCRN studies, primarily in the form of abstracts that have been or will be presented at national meetings. We are pleased to share with you these interesting and, we believe, clinically-relevant findings. As you will find, PoPCRN is establishing a track record of conducting studies that are congruent with our mission of enhancing the care of persons at the end of life and their families through the conduct and dissemination of high-quality research in palliative care settings. That is, I certainly believe that we are meeting the component of our mission regarding the conduct of high quality research in settings where palliative care is provided. We have less evidence that we are meeting the other two components of our mission, "dissemination" and "enhancing the care of persons at the end of life and their families". Our current dissemination of research findings is primarily through this newsletter, presentations at local, regional and national meetings, the PoPCRN web site, and mailings to participating organizations. What is not as clear to me is how well we, and participating organizations, are "translating research into practice". That is, care for persons at the end of life and their families can only be enhanced if research findings are actually translated into clinical care.

To date, PoPCRN studies have been primarily descriptive or observational – that is, describing current practice. While these data are clinically-relevant, it is difficult to know whether these data are actually making a difference, that is, actually enhancing care. I'd like to share with you current and planned PoPCRN activities that will hopefully further our progress towards meeting all components of our mission.

(Continued on Page 2)

MISSION STATEMENT:

The Population-based Palliative Care Research Network (PoPCRN) is committed to enhancing the care of persons at the end of life and their families through the conduct and dissemination of high-quality research in palliative care settings.

REPRESENTATION:

Our current mailing list includes 513 people from 202 research sites located in 41 States, Canada, and Australia.

WHERE HAVE WE BEEN?

- Study 1: Symptom Prevalence Card Study, 7/99-10/99
- Study 2: Psychosocial/Spiritual Issues Study, 1/00-9/00
- Study 2A: Psychosocial/Spiritual Issues Study in Dept. of Corrections sites, 12/01-11/02
- Study 3: Bereavement Pilot Study, 2/00
- Study 4: Confusion & Delirium Prevalence Study, 2/00-3/00
- Study 5: Discharge Follow-up Study, 7/00-12/01
- Study 6: Symptom Study-Phase I, 8/00-12/02
- Study 8: Web-based Hospice Fall Rate Study, 10/01
- Study 9: Web-based Hospice Education Study, 12/01-2/02
- Study 10: Palliative Care Guidelines for Symptom Management Study, 3/02-8/02
- Study 11: Hospice Nurses Symptom Management Study, 3/02-8/02
- Study 12: Web-based Pharmacy Cost Study, 5/02-9/02
- Study 13: Pilot Study: Efficacy of Massage Therapy at the End of Life, 9/02-12/02
- Study 15: Research Screening Study, 11/02-2/03
- Study 16: Medication Prescribing Patterns, 12/02-2/03

WHERE ARE WE NOW?

- Study 7: National Hospice Outcomes Project, 4/01-3/03

WHERE ARE WE GOING?

Six studies are under development.

KERNEL'S CORNER, CONTINUED FROM PAGE 1:

We continue to follow up on recommendations generated during the July 2002 PoPCRN strategic planning retreat. We have created a brief document that addresses PoPCRN procedures, particularly regarding developing and implementing both internally-generated and collaborative new research. This document is available on the PoPCRN web site or upon request. We have clarified the role of the PoPCRN Advisory Committees – with the goal of increasing involvement of the Advisory Committees throughout the research process – from study idea development through interpretation and dissemination of the study results. A listing of current members of the PoPCRN Advisory Committees can be found in this newsletter. Finally, we are developing a survey to document the “research capacity” of participating PoPCRN sites. By “research capacity” we mean each organization’s current culture regarding, infrastructure for, and ability to conduct studies - and then translate research data into practice, as well as needed resources. We plan to use these data to better plan for the needs of participating organizations as we develop new study ideas. We expect to have this survey ready for distribution by late Spring or early Summer. We will also work with the NHPCO to obtain, with site permission, organizational-level data, to better describe the participating PoPCRN organizations.

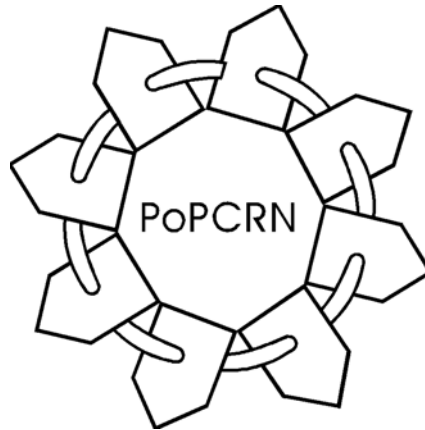
PoPCRN’s collaboration with other clinical sites and investigators has increased over the past six months or so. I have been participating in the PC-HEART (Palliative Care-Heart failure Education And Research Trials) collaborative, lead by Sarah Goodlin, MD at LDS Hospital in Salt Lake City. We are in the process of jointly developing a hospice medical director survey addressing care for patients with advanced heart failure in the hospice setting. David Casarett, MD, MA, Assistant Professor at the Philadelphia VAMC and the Division of Geriatrics at the University of Pennsylvania, and PoPCRN have been collaborating on a study in which patients upon admission to hospice are asked whether they *potentially* would be interested in participating in research involving patient surveys, family surveys or clinical trials. PoPCRN team members have also worked with individual hospice organizations that are planning their own studies or program evaluations and are seeking research advice or expertise.

The PoPCRN team itself is looking towards conducting intervention studies – how can we take what we have learned from our studies to date and the current literature and truly impact patient care? We have received a small amount of funding from a local source, the Mendel/Asarch Lung Cancer Family Foundation Grants Program, to conduct pilot data collection for a randomized controlled trial of the efficacy of massage therapy for the treatment of pain in patients with advanced cancer and are waiting to hear about full funding for this study. While we recognize the potentially significant challenges of conducting multi-site randomized studies among a geographically-diverse network of organizations that primarily provide clinical care, we are committed to seeking resources for and moving forward in this arena.

In order to meet our full mission we need to hear from you – how can research data truly be translated into practice? What do research data mean for clinical practice? What are relevant next studies? These are several of the issues that will be discussed at the **PoPCRN Convocation**, to be held in conjunction with the upcoming Joint Clinical Conference. The convocation is scheduled for the afternoon of **April 9, 2003** in Denver, Colorado (convocation 1:00 – 6:00 PM, reception 6:00 – 7:30 PM). A highlight of the afternoon will be recognizing and honoring participating sites. A plaque presentation will occur beginning at 5:30 PM. We hope to see you for all or part of this event. Please RSVP to Terri Gould (Terri.Gould@uchsc.edu). I look forward to personally thanking you for believing in and participating in PoPCRN. You are also always welcome to contact me directly if you’d like to share your thoughts about these topics or any other PoPCRN-related issues (Jean.Kutner@uchsc.edu).

RECENT POPCRN PRESENTATIONS

- ♦ Daniel C. Johnson MD, Cordt T. Kassner PhD, Jean S. Kutner MD, MSPH: Current Use of Symptom Management Guidelines in Hospice. Poster presented at the 15th Annual Assembly of the American Academy of Hospice and Palliative Medicine, 2/03.
- ♦ Jean S. Kutner MD MSPH, Diane Fairclough DPH, Brenda Beaty MPH, Cordt T. Kassner PhD, John F. Steiner MD MPH: Symptom Distress and Quality of Life in the Last Days of Life. Poster presented at the 15th Annual Assembly of the American Academy of Hospice and Palliative Medicine, 2/03.
- ♦ Jean S. Kutner MD MSPH, Stacy M. Fisher MD, Cordt T. Kassner PhD, David E. Nowels MD MPH, Kathy Egan MA BSN CHPN: Health Care Professional Education: A Unique Role for Hospices. Poster presented at the 15th Annual Assembly of the American Academy of Hospice and Palliative Medicine, 2/03.



Population-Based Palliative Care Research Network

You are cordially invited to attend the

Population-based Palliative Care Research Network First Convocation

Planned in Conjunction with the 4th Joint Clinical Conference

Date: Wednesday, April 9, 2003 (please note date was misprinted in conference brochure)
Time: 1:00 PM – 5:30 PM Convocation
5:30 – 6:00 PM Plaque presentation and recognition of PoPCRN sites
6:00 PM – 7:30 PM Reception

Location: Majestic Ballroom, Adam's Mark Hotel, Denver, Colorado

Convocation Agenda:

- * Overview of PoPCRN and Study Results
- * Facilitated Discussion of Research Process and Ideas
- * *Recognition of Participating Sites*

Some funds will be available to defray travel expenses for those attending.

Please RSVP to Terri Gould by March 31, 2003.

P: 303.372.9094

E: Terri.Gould@uchsc.edu

UPCOMING POPCRN PRESENTATIONS

- ◆ Daniel Johnson MD and Jane McCabe RN MSN AOCN: Too Tired to Tire Now: Managing Fatigue at the End of Life. Workshop at the 4th Joint Clinical Conference, Denver, CO, 4/10/03.
- ◆ Mary Kazanowski PhD APRN BC AOCN, Terri Guzman RN BSN MSM, Daniel Fortier MD, and Daniel Johnson MD: Perceived Barriers to Effective Symptom Management in Hospice. Workshop at the 4th Joint Clinical Conference, Denver, CO, 4/10/03.
- ◆ Jean Kutner MD MSPH, Kathy Egan MA BSN CHPN, and Stacy Fischer, MD: Educating the Future Hospice Work Force: Current Experience, Practical Tips. Workshop at the 4th Joint Clinical Conference, Denver, CO, 4/11/03.
- ◆ Jean Kutner MD MSPH: The Population-based Palliative Care Research Network (PoPCRN). Presentation for the NCHPP Section Meeting Research/Education/Academics at the 4th Joint Clinical Conference, Denver, CO, 4/11/03.
- ◆ Robin McMahan MSW LCSW BCD and David Nowels MD MPH: Two Current Studies on Understanding Aspects of the End-of-Life Experience: Death Anxiety and Confusion. Workshop at the 4th Joint Clinical Conference, Denver, CO, 4/12/03.

POPCRN PUBLICATIONS

- ◆ Kutner JS, Meyer SA, Beaty B, Kassner CT, Nowels DE, Beehler C. “Outcomes and Characteristics of Patients Discharged Alive From Hospice.” Submitted to *Archives of Internal Medicine*. February 2003.
- ◆ Kutner JS, Nowels DE, Kassner CT, Houser J, Bryant LL, Main DS. Confirmation of the ‘Disability Paradox’ Among Hospice Patients: Preservation of Quality of Life Despite Physical Ailments and Psychosocial Concerns. Submitted to *Palliative & Supportive Care*. February 2003.
- ◆ Nowels DE, Bublitz C, Kassner CT, Kutner JS. “Estimation of Confusion Prevalence in Hospice Patients.” *Journal of Palliative Medicine*. 2002; 5(5):687-695.
- ◆ Kutner JS, Blake M, Meyer S. “Predictors of Live Hospice Discharge: Data from the National Home and Hospice Care Survey (NHHCS).” *Am J Hospice and Palliative Care*. 2002; 19(5):1-7.
- ◆ Kutner JS, Kassner CT, Nowels DE. “Symptom Burden at the End of Life – Hospice Providers’ Perceptions.” *Journal of Pain and Symptom Management*. 2001; 21(6):473-480.
- ◆ Jean Kutner was interviewed on the radio – see our webpage (<http://www.uchsc.edu/popcrn>) for a link to the interview.

WEB-BASED RESEARCH

If you have additional ideas for web-based studies, please let us know!

Efficacy of Massage Therapy for Pain and Symptom Distress in Advanced Lung Cancer

PoPCRN is pleased to announce that Jean Kutner, MD, MSPH, has been awarded a small grant through the *Mendel/Asarch Lung Cancer Family Foundation Grants Program* based in the Center for Integrative Medicine at the University of Colorado Hospital to conduct the full pilot study (randomized, full control and treatment exposures) examining the efficacy of massage therapy for pain and symptom distress in advanced lung cancer. This study will collect additional pilot data to support an R01 National Institutes of Health grant proposal.

Congratulations Jean!

FEATURED SITE
Pikes Peak Hospice & Palliative Care
Colorado Springs, Colorado
by Martha Barton, President and CEO

Since 1980, families in El Paso County have turned to Pikes Peak Hospice & Palliative Care (PPHPC) to care for terminally ill people – and those who love them – in an environment of competence, compassion, and respect. Addressing the need for quality end-of-life care, PPHPC began to offer hospice home care throughout the Colorado Springs community. Today, Pikes Peak Hospice & Palliative Care has a daily census of over 200 patients, caring for them at home, in Long Term Care and Assisted Living facilities, and in the PPHPC 37-bed inpatient unit.

As a community based non-profit organization, we believe that our collaborations are at the heart of our services. These relationships are instrumental in our efforts to increase awareness and expand delivery of hospice and palliative care services:

- The importance of cultural understanding in death and dying issues has led to a collaborative relationship with the Black Leadership Forum of Colorado Springs. Our program, “One Voice at a Time,” raises awareness and understanding of needs unique to African American citizens in our community.
- PPHPC partnered with the county medical society, both area hospitals and the Osteopathic Foundation to present three two-day sessions of “Education for Physicians in End of Life Care” (EPEC). Seventy physicians, hospital ethics advisors, and nurse practitioners have completed this course.
- PPHPC and one area hospital co-sponsor continuing education for health care professionals throughout the community. This one-day intensive training, *End of Life Care Intensive for Experienced Care Providers*, is part of the End of Life Education Consortium assists staff, physicians and patients with education and understanding of available options for care at the end of life. This initiative has resulted in increased discussions about palliative care, increased employee satisfaction in their interactions with physicians and patients addressing end-of-life issues and fewer patients dying in the hospital.
- PPHPC participates on numerous hospital committees to share expertise. Involvement includes participation on Ethics, Palliative Care, and Cancer Committees, as well as participation on Tumor Boards and Hospital Board of Directors.
- PPHPC’s Clinical Case Manager works closely with private insurance company case managers as an advocate for patients to secure added palliative interventions which are carved out from the traditional hospice benefit.
- American Medical Response, the local ambulance service company, volunteers to provide “Sentimental Journey,” a program offering patients safe transportation accompanied by medically trained attendants, to a local destination of their choice.
- PPHPC is a member of the Pikes Peak Forum for Health Care Ethics, formed in 1996. Comprised of key health care, religious and human service organizations, this powerful coalition provides a local forum for sharing and weighing different views and concerns relating to health care ethics and end-of-life care.
- PPHPC is the leading organization in bringing together community organizations to build a Colorado Springs **Rallying Points** coalition.

Pikes Peak Hospice & Palliative Care is further distinguished by the following:

- **Physician Staff** of 5 AAHPM Board certified physicians. Palliative consultations are offered in area hospitals and extended care facilities. A full-time Medical Director coordinates the continuum of palliative interventions used in patient’s homes and hospice facilities.
- **Complementary Therapies** are presented alongside traditional medical treatment for easing pain, controlling symptoms and increasing quality of life. Each therapeutic component of this extensive program is administered by specially trained staff and volunteers. Some therapies are offered to patients living in their homes, long-term care and assisted living facilities as well as at the PPHPC inpatient facility. Therapies includes: *Touch Therapies*, *Prescription Animal Therapy (P.A.T)*, *Soothing Sounds (music)*, *Acupuncture*, *Creative Expressions (art)*, *Hypnosis*, *Aroma Therapy*, *Sentimental Journey*, *Tea for Two (volunteers bring tea and home baked goodies as an afternoon break for patients and families)*, and *Friends of Faith (patients and families express individual faith traditions and beliefs with a volunteer of the same background)*

(Continued on Page 8)

CLINICAL FEATURE

Managing Fatigue at the End of Life (Part 1): Challenging the Paradigm

***Daniel Johnson MD, University of Colorado Health Sciences Center, Denver, CO.**

Ms. J is a 67y/o Holocaust survivor with a history of Parkinson's disease, diabetes, iron deficiency anemia and depression. Although Ms. J has lived independently with home hospice for 8 weeks, she now requires inpatient hospice services due to progressive functional losses in the context of limited home support. During her assessment at the time of transfer you inquire about the most difficult aspect of her illness: she replies "I'm just so tired all the time".

Fatigue or asthenia (*Asthenos* from Greek: the absence or loss of strength) has been identified as one of the most prevalent and distressing symptoms of seriously or terminally ill patients.¹⁻² The prevalence of cancer-related fatigue has been reported to be as high as 99%.³ In a 1999 PoPCRN study, hospice providers identified lack of energy as the most prevalent (83%) and severe (when present, 46%) symptom in a sample of 348 patients.⁴

One of the barriers to treating fatigue at the end of life may be patients', families' and clinicians' perception of fatigue as an unavoidable, untreatable symptom. This perception likely reflects both the ubiquitous nature of fatigue and the lack of uniformly effective treatments. In a 1997 study of cancer patients and their oncologists, patients reported that fatigue adversely affected their daily lives more than pain (61% vs. 19%), though oncologists believed that pain adversely affected their patients to a greater degree than fatigue (61% vs. 37%). Most oncologists (80%) believed that fatigue was overlooked or undertreated, and most patients (74%) considered fatigue a symptom to be endured. However, patients and caregivers perceived treatments for fatigue, when used, to be helpful.⁵ In a recent PoPCRN study, 382/ 867 (44%) hospice nurses surveyed chose either fatigue and/or weakness as one of their five most difficult symptoms to manage. Only 34 (9%) of these nurses reported success often or almost always in treating the distress associated with fatigue or weakness. Nurses identified multiple barriers to treating fatigue and weakness including the perception that these symptoms were a "tradeoff" that must be accepted as a consequence of other treatments (63%) and that other, more distressing symptoms limited their ability to effectively manage these symptoms (54%) (Johnson DC et al, manuscript in preparation). Collectively, these data suggest patients, families and their health care providers may frequently accept fatigue despite its enormous negative impact on quality of life. Challenging this paradigm may be an important step if we are to develop and implement more effective fatigue management approaches.

An Approach to Fatigue

When assessing fatigue, there appears to be a natural tendency for clinicians to seek the causes of fatigue before seeking the meaning of fatigue from the perspective of the patient (or family). While understanding the likely underlying cause(s) of fatigue provides the framework to target interventions, clinicians must first construct a foundation by understanding the patient's meaning of fatigue and his/ her expectations for treatment: *1. What does Ms. J mean by "I'm just so tired"?*

Understanding the patient's language of fatigue is a crucial first step in the fatigue assessment. Like pain, fatigue is recognized as a subjective experience based on patient self-report.^{1,6} While fatigue intensity levels can be monitored with simple clinical tools (i.e. intensity from 0-10), fatigue is better characterized as a multidimensional symptom affecting physical, psychological, social and spiritual domains. For example, a "fatigue" level of 7 for one patient may mean physical weakness with loss of function, while for another patient it may mean mental sluggishness and loss of social contact. While current multidimensional research tools remain too cumbersome for use in daily practice, clinical assessment should aim to elucidate a patient's description or "language" of fatigue. Further exploration of Ms. J's fatigue revealed that her "tiredness" included physical weakness without sleepiness, increasing episodes of breathlessness with activity, frustration with her inability to care for herself, sadness over missed visits with her grandchildren and a growing sense of apathy and helplessness.

(Continued on Page 7)

Clinical Feature, Continued from Page 6

2. What are Ms. J's expectations?

Understanding patient's expectations is a next important step in assessing fatigue. While for some patients fatigue may be minimally distressful and "accepted", most patients welcome active care interventions designed to reduce fatigue. In this case, Ms. J clearly identified fatigue as the symptom that most disrupted her quality of life and explicitly stated her desire for relief. She added that she did not want any further testing: "I'm through with all that."

3. What are the potential sources of (or contributing factors to) Ms. J's fatigue?

Fatigue is a complex symptom with multiple etiologies. As few patients have a single, isolated cause, a thorough assessment of the likely sources of (or contributing factors to) fatigue is an important next step. In addition to understanding the details of a patient's description of fatigue, a thorough assessment should gather information on fatigue intensity, onset, duration, exacerbating or relieving factors, and concurrent symptoms. A review of the patient's medical history with special attention to medications and a brief physical exam often provides important clues to likely causes. Based on Ms. J's history and her rich description of her "tiredness", likely sources might include her Parkinson's disease and progressive physical deconditioning (weakness), anemia (breathlessness with activity), psychological distress from her loss of independence (frustration), social distress from growing isolation (missed visits), and depression (sadness w/ apathy and helplessness). She notes that her fatigue (breathlessness and exhaustion) worsens with activity or episodes of pain, and abates somewhat during time spent with family and grandchildren (she describes "rallying"). Other potential sources might include her medications (opioids, zolofit and sinemet), concurrent symptoms (mild anxiety, breathlessness and pain (2/10)) and possible undiagnosed metabolic or endocrine disorders such as hypothyroidism or cancer.

This Summer, Part 2 of this article ("Managing Fatigue at the End of Life (Part 2): Making a Difference") will use the information from Steps 1-3 to design a multidisciplinary care plan to reduce Ms. J's fatigue, and review pharmacologic and non-pharmacologic approaches fatigue management.

Dr. Johnson will co-lead (w/ Jane McCabe MSN) an interactive workshop on fatigue management "Too Tired to Tire Now: Managing Fatigue at the End of Life" at the NHPCO 4th Joint Clinical Conference in Denver on 4/10/2003. All are welcome to come and contribute!

*Dr. Johnson receives grant support as a Faculty Scholar through the Project on Death in America.

1. Ferrell BR et al. Bone tired: the experience of fatigue and its impact on quality of life. *Onc Nurs For.* 1996; 23(10):1539-47.
2. Ng K, von Gunten CF. Symptoms and Attitudes of 100 consecutive patients admitted to an acute hospice/palliative care unit. *J Pain Symptom Manage.* 1998; 16:307-315.
3. Messias DK et al. Patients' perspectives of fatigue while undergoing chemotherapy. *Onc Nurs For.* 1997; 24(1):43-48.
4. Kutner JS, Kassner CT, Nowels DE. Symptom burden at the end of life: Hospice providers' perceptions. *J Pain Symptom Manage.* 2001; 21(6):473-80.
5. Vogelzang et al. Patient, caregiver and oncologist perceptions of cancer-related fatigue: results of a tripart assessment survey. *Semin Hematol.* 1997; 34(3 Supp 2):4-12.
6. Ream A, Richardson A. Fatigue: A concept analysis. *Int J Nurs Stud.* 1996; 33:519-529.

Featured Site, Continued from Page 5

- **Pikes Peak Hospice & Palliative Care's commitment to education** includes on-going training to increase excellence in care delivery:
 - ◆ Preceptors enhance continuous skill building for nurses;
 - ◆ Students from two area nursing schools do on-site rotations;
 - ◆ ELNEC curriculum has been customized to provide "refresher training" for all current and new employees.
- April 2003 marks the opening of **PPHPC pharmacy services**. Goals include enhancing care delivery and clinical support to all patients

PPHPC employs more than 250 specialized staff, as well as a trained volunteer force of 400 individuals who give their time and efforts in all phases of operations.

Additional information about Pikes Peak Hospice & Palliative Care may be found at www.pikespeakhospice.org.

Consider a site visit to PPHPC April 9, 2003 as part of the 4th Joint Clinical Conference in Denver, CO, April 10-12.

SEVEN ABSTRACTS

1) Outcomes and Characteristics of Patients Discharged Alive From Hospice

Jean S. Kutner, MD, MSPH, Sue A. Meyer, Brenda Beaty, MSPH, Cordt T. Kassner, PhD, David E. Nowels, MD, MPH, Connie Beehler, MD, MS

Context. Eligibility for the Medicare Hospice Benefit requires a terminal diagnosis with a prognosis of six months or less given the expected course of the disease. Many end-stage chronic diseases are characterized by exacerbations and remissions rather than inexorable decline. Consequently, patients may be discharged from hospice when there is lack of evidence of disease progression.

Objective. To determine outcomes and characteristics of patients discharged alive from hospice.

Design. Cohort study.

Setting. The Population-based Palliative Care Research Network (PoPCRN).

Participants. English-speaking adults (n=164) who were discharged alive from participating hospices (n=18) during the 1-year study period.

Main Outcome Measures. Mortality and hospice readmission within 6 months of hospice discharge.

Results. Thirty-five percent (n = 48) of the 139 patients with known outcomes died within six months of hospice discharge, 15 of whom (31%) died without hospice readmission. No patient characteristics predicted mortality [age (p = 0.11), gender (p = 0.77), length of hospice service (p = 0.99), diagnosis (p = 0.73), discharge disposition (p = 0.54), referring physician certification of prognosis \leq six months (p = 0.37), admission Karnofsky score (p = 0.39), days of hospice care following stabilization of condition (p = 0.83), or reason for hospice discharge (p = 0.13)]. The strongest predictor of mortality following hospice discharge was a report that the patient's condition had worsened (hazard ratio 10.8, confidence limit 4.6- 25.3).

Conclusions. One-third of patients who were discharged from hospice died within 6 months of hospice discharge, indicating that these individuals were still eligible for hospice care, even under the strictest interpretation of hospice eligibility criteria. Patients who are discharged from hospice care should be evaluated frequently, especially within the first weeks to months following discharge, for changes in status and potential hospice readmission.

Abstract submitted to Archives of Internal Medicine, February 2003.

2) Educating the Future Hospice Work Force: Current Experience, Practical Tips

Jean Kutner MD MSPH and Kathy Egan MA BSN CHPN

It is well-documented that there are gaps in health care providers' knowledge of and comfort with end-of-life care. As such, there are increasing requirements in health care professional curricula for training in end-of-life care. Given the significant need for health care provider education in end-of-life care, and the potentially increasing role that hospices may play in health care provider education, this interactive workshop addresses the current state of, practical

tips for and successful models of hospice involvement in health care provider education. Specifically, this workshop will focus on collaborations between hospices and health care provider educational institutions.

The workshop will consist of:

- 1) Presentation of results of a nationwide study of the extent to which and types of educational experiences that hospices are currently providing to health professions students (20 minutes).
- 2) Discussion of the rationale for and provision of examples of student affiliation agreements between hospices and educational institutions (20 minutes).
- 3) Sharing of successful models of hospice-educational institution collaboration in the education of nursing students, medical students, and internal medicine/family practice residents. (30 minutes).
- 4) Discussion among participants of their experiences with, benefits of, barriers to and ideas for educating the hospice work force of the future. Participants will be encouraged to create an “action plan” for fostering such collaborations at their home institutions.

To be presented at the 4th Annual Joint Clinical Conference Workshop on 4/11/03.

3) Current Use of Guidelines, Protocols or Care Pathways for Symptom Management in Hospice

Daniel C. Johnson MD, Cordt T. Kassner PhD, Jean S. Kutner MD, MSPH

Evidence-based guidelines or care pathways for symptom management could provide a means to reduce symptom distress in dying patients. We surveyed Directors of Nursing from hospices affiliated with the Population-based Palliative Care Research Network (PoPCRN) regarding their hospices' current use of and attitudes toward written symptom management materials. A majority (53/78, 68%) of participating hospices reported use of written materials - guidelines, protocols or care pathways - for one or more symptoms. Materials were based on multiple sources and varied from simple medication orders to more comprehensive, multi-category symptom management resources. Regardless of the composition, these materials were perceived as helpful. Given this favorable view, variations in the use and content of written materials may signify an opportunity to decrease symptom distress in hospice through the implementation of evidence-based symptom management resources.

Abstract submitted to American Journal of Hospice and Palliative Medicine, also included as a poster presentation at the American Academy of Hospice and Palliative Medicine's 15th Annual Assembly in Orlando, Florida (February, 2003).

4) Confirmation of the “Disability Paradox” among Hospice Patients: Preservation of Quality of Life Despite Physical Ailments and Psychosocial Concerns

Jean S. Kutner, MD, MSPH, David E. Nowels, MD, MPH, Cordt T. Kassner, PhD, Janet Houser, PhD, Lucinda L. Bryant, PhD, Deborah S. Main, PhD

The purpose of this study was to describe quality of life (QOL) and psychosocial and spiritual issues among patients receiving hospice care. A questionnaire addressing QOL, spirituality, optimism, loss, fears about the terminal process and death anxiety was administered to 66 adults receiving care from 14 hospices. The physical components of QOL (physical symptoms and physical well-being) were rated lower than the psychosocial and spiritual aspects (support, existential well-being, psychological symptoms). Respondents had a strong spiritual connection and a strong sense of hope. While these individuals did not express anxiety or fear about death, there were concerns about the dying process itself. Also, although most felt at ease with their current situation, respondents were concerned about how their illness was affecting their family. Financial and legal issues did not concern most of these individuals. There were few significant associations between patient characteristics and the QOL or other psychosocial or spiritual issues addressed. Among this older terminally ill population receiving hospice care, whose functional status was fair and for whom physical symptoms were troublesome, QOL persisted and a positive outlook prevailed.

Abstract submitted to Palliative & Supportive Care.

5) Perceived Barriers to Effective Symptom Management in Hospice

Daniel C. Johnson MD, Cordt T. Kassner PhD, Janet Houser PhD, Jean S. Kutner MD, MSPH.

BACKGROUND: Dying patients frequently suffer from pain and non-pain symptoms, even in hospice - a setting specializing in end-of-life care. While for some symptoms this unrelieved burden may reflect a lack of effective treatments, the barriers to effective symptom management in hospice remain unclear.

METHODS: We surveyed nurses from hospices affiliated with the Population-based Palliative Care Research Network (PoPCRN), a national research network of hospice organizations. We asked each participant to specify barriers to the five symptoms they found most difficult to manage. Descriptive statistics, non-parametric techniques and factor analyses were used to describe patterns of barriers among common symptoms.

RESULTS: 867/1710 (51%) nurses from 67 hospices in 25 US States returned surveys. Mean nursing and hospice experience were 10.5 years [range 0.5-50 years] and 4.4 years [range 0.1-25 years] respectively. Most nurses (80%) provided care in the home setting. The symptoms that were most difficult to manage were agitation (45%), pain (40%), dyspnea (34%), confusion (33%) and pressure ulcers (27%). Less than half (43%) of respondents felt often or almost always successful in relieving distress from their selected symptoms. Nurses reported success in relieving pain (96%), constipation (85%) and nausea (84%), but were unsuccessful in relieving weakness (7%), fatigue (11%) and anorexia (11%). The most common perceived barriers to effective symptom management were the inability of care providers to implement or maintain recommended treatments (38%), patients or families not wanting recommended treatments (38%), competing demands from other distressing symptoms (37%), and acceptance of the symptom as a consequence of other treatments (33%). Through factor analysis, the 15 most frequently reported symptoms were classified into 3 groups based on patterns of barriers: symptoms with well-defined treatments and high rates of perceived success such as pain, dyspnea, and nausea; symptoms with less clear treatments and low rates of success such as weakness, fatigue, and anorexia; and two psychological symptoms - depression and irritability - that demonstrated a broader spectrum of contributing barriers.

CONCLUSION: These hospice nurses identified a variety of complex barriers contributing to unrelieved symptom burden. Potential interventions should take into account the differing patterns of barriers to effectively treat these frequent and distressing symptoms.

Selected for oral presentation at the 4th Joint Clinical Conference (4/10/03) and the 2003 Society for General Internal Medicine conference (5/03), manuscript in preparation for submission.

6) Perceived Palliative Benefit of Medications Among Hospice Medical Directors Is Not Universal

Bray-Hall ST, Kutner JS, Kassner CT.

BACKGROUND: There are no established guidelines regarding the palliative benefit of medications in the hospice setting. Which medications will be continued during hospice care is often dependent upon the individual physician. The objective of this study is to better understand the reasons why physicians choose to discontinue certain medications when a patient is admitted to a hospice.

METHODS: We conducted a self-administered survey by mail and email of medical directors of hospices participating in the Population-based Palliative Care Research Network (PoPCRN). The respondents were asked background questions about their training, roles, and hospice experience. They were then given a list of 29 medications and asked to identify the most common reason they choose to discontinue each medication, if at all.

RESULTS: Of the 175 hospices surveyed, 54 medical directors have responded to date, representing 19 states and 45 hospices. The most common reason for stopping a medication, across all medications sampled, was that patients or family requested to discontinue it (30%). Consensus regarding benefit was present for only a small number of medications. Levothyroxine and sinemet were felt to have significant benefit, as more than 50% of respondents never stop them. In contrast, 79% of the respondents discontinue HMG CoA reductase inhibitors because there is no perceived palliative benefit. Cost predominated as the primary reason for discontinuing only erythropoietin and colony stimulating factors. Cost was noted to be a reason for discontinuing medication for only 8% of the responses. No consensus exists regarding the approach to the use of ACE inhibitors, digoxin, aspirin, anticoagulants, multivitamins, inhaled steroids, proton pump inhibitors, or amiodarone for atrial fibrillation in the hospice setting.

CONCLUSION: This study demonstrates that hospice medical directors clearly believe that some medications belong in the palliative therapeutic arsenal and others have no perceived palliative benefit. With uncertainty in benefit, patient-focused care is the deciding factor. This information may serve as a point of reference for individual practice and to

improve care of dying patients and identifies key areas where a better understanding of the role of particular types of medications in the palliative setting is needed.

Submitted to the Society for General Internal Medicine Annual Meeting, May 2003

7) Symptom Distress and Quality of Life at the End of Life: A Comparison of Patient, Caregiver, and Nurse Assessments

Kutner JS, Fairclough D, Beaty B, Kassner CT, Steiner JF.

BACKGROUND: We described and compared symptom distress and quality of life among persons receiving hospice/palliative care from the perspective of patients and proxies (caregivers and nurses). We hypothesized that 1) proxy respondents would rate symptom (sx) distress higher and quality of life (QOL) lower than would patients, 2) patient and nurse assessments would be highly correlated, and 3) correlations would be higher for physical than for psychological issues.

METHODS: A prospective cohort study in the Population-based Palliative Care Research Network (PoPCRN), provided data [Condensed Memorial Symptom Assessment Scale (MSAS, range 0 – 4, higher =more sx distress), McGill Quality of Life Questionnaire (MQOL, range 0 – 10, 0=bad, 10=good)] at hospice admission, 1 and 2 weeks, monthly, and at death or discharge. English-speaking adult patients (P) receiving care from PoPCRN sites (if able), their caregivers (C) (if available), and nurses (N) participated. We used a multivariate mixed effects model to assess the relationships between the 3 groups.

RESULTS: 86 patients from 10 hospices participated: 53% female, 60% with a cancer diagnosis, 95% non-Hispanic white, mean age 72 (range 33 – 100). Respondents differed on only 3 of the 10 possible sx and QOL scales/subscales (see table): 1) Nurses rated support-related QOL lower than caregivers or patients, 2) Caregivers rated physical well-being-related QOL lower than nurses or patients, and 3) Nurses rated physical sx distress lower than caregivers or patients. No differences were found for any of the other MQOL (overall, total, existential well-being, psychological, physical sx) or MSAS (global distress index, psychological) scores. Overall, nurse & patient scores appeared to be more highly correlated than were the caregiver & patient. Correlations tended to be lower for physical symptom-related QOL and higher for overall QOL (see table).

CONCLUSION: Respondent types differed little in their ratings of sx or QOL. Where differences did exist, proxies rated both QOL and sx distress lower than did patients. The assessments of all respondents correlated only moderately across all QOL and sx distress measures. Clinicians should seek the perspectives of all involved parties when seeking to decrease sx distress and maximize QOL at the end of life. From a research perspective, these findings indicate the need to incorporate data from all available respondents when one encounters missing sx or QOL data.

Respondent pair	MQOL Support	MQOL Physical well-being	MSAS Physical sx	Lowest Correlations (scale)	Highest Correlations (scale)
N - P	7.62 vs. 8.55 (p=0.01)	4.53 vs. 4.54 (p=0.97)	1.45 vs. 1.71 (p=0.03)	0.28 (MQOL Physical sx)	0.61 (MQOL Global)
C - P	8.47 vs. 8.55 (p=0.86)	2.94 vs. 4.54 (p<0.01)	1.75 vs. 1.71 (p=0.79)	0.21 (MQOL Support)	0.54 (MQOL Global)
N - C	7.62 vs. 8.47 (p=0.02)	4.53 vs. 2.94 (p<0.01)	1.45 vs. 1.75 (p=0.03)	0.14 (MQOL Physical sx)	0.64 (MQOL Total)

Submitted to the Society for General Internal Medicine Annual Meeting, May 2003

SPECIAL RECOGNITION!

Over the past several months PoPCRN has expressed our appreciation to one person who has contributed to the growth and development of PoPCRN in extraordinary ways. We want to acknowledge who this special person is and how they have supported PoPCRN:

- ◆ **Michael Bigpond**, *Hospice of St. John*, Medical Records, for his ongoing support of PoPCRN research, particularly with the National Hospice Outcomes Project.

PoPCRN has provided a gift certificate to Mentor Books (www.mentorbooks.com) in appreciation of his efforts.

Thank You!

Book Review

Long Goodbye: The Deaths of Nancy Cruzan, by William H. Colby (Hay House, Inc. 2002)
Review by Anne K. Jordan, PhD

The *Cruzan* case (1989) was the first right-to-die case heard by the United States Supreme Court. Nancy Cruzan had a car accident in 1983 that left her in a persistent vegetative state (PVS) at the age of 25. Her family could not have anticipated the journey ahead of them when they requested to have hydration and nutrition withdrawn, to let Nancy die.

Author, William “Bill” Colby, writes the human story behind the case. Bill Colby is the attorney, and friend, who stood by the Cruzan family throughout their legal battle, and beyond. He provides a detailed account of the *Cruzan* case, from its inception at the Missouri state court system, through its journey to the United States Supreme Court, and through the appeals process. He introduces us to the players in this case – the family, medical personnel, lawyers, judges, witnesses, state representatives, media players, and social movement members. He provides us with the questions and arguments raised along the way.

More importantly, he describes the impact the accident and the case had on Nancy’s family and other key players. Written like a novel, Mr. Colby paints the picture of the Cruzan family’s day-to-day lives and the struggles they faced throughout this journey. We are witnesses to the visits with Nancy in the rehabilitation hospital, the attempts to live a normal life, phone calls and letters, the on-going interactions with the PBS crew, the meetings with the medical director, the interactions with medical personnel, the drama of the courts and the behind-the-scenes meetings between lawyers and judges. We learn about the kind of person Nancy was before the accident, and the life she lived after. We learn about the real pain that her family experienced as they struggled with this situation over several years time.

Joe Cruzan, Nancy’s father, often wondered why no one had written about their case. Bill Colby finally took the challenge, and I believe, if Joe Cruzan was alive today, he would be very proud of this account. This book brings to light the personal struggle and the medical / ethical / legal / religious controversies introduced with a patient’s right to self-determination regarding their end-of-life care. As Bill Colby writes, “The questions the Cruzans faced are questions that in time, one way or another, will visit us all.” I highly recommend this book to professionals and lay people alike.

INFORMATION ON CURRENT AND UPCOMING POPCRN STUDIES

Study 6: Natural History of Symptoms Study:

This is a study of symptoms and quality of life in hospice/palliative care patients funded for 4-years by the Robert Wood Johnson Foundation and the Beeson Award. The first phase of this study describes the time course of and distress due to common symptoms among hospice/palliative care patients. Eleven sites have completed patient enrollment (n=100) for this study. Data analysis is being conducted and results will be available soon.

Study 7: National Hospice Outcomes Project:

This two year research project, supported by the Robert Wood Johnson Foundation Chronic Care Initiative, is being conducted by the Institute for Clinical Outcomes Research in conjunction with the National Hospice and Palliative Care Organization. The overall objective of this project is to conduct a Clinical Practice Improvement study of pain control, dyspnea control, and self-determined life closure to determine which treatment modalities are associated with better outcomes of hospice care. The ultimate goal of this project is to develop research-based dynamic protocols for better pain control, dyspnea control, and self-determined life closure. This goal fits well with the current focus of PoPCRn studies on symptom management and quality of life at the end of life. Five PoPCRn sites are participating in this study. Project tools were integrated into the hospice systems beginning in March 2002.

Please either contact us or see our website, <http://www.uchsc.edu/popcrn>, for additional details regarding current studies and results of previous studies.

ANNOUNCEMENTS

The Center for Palliative Studies at San Diego Hospice

The Center for Palliative Studies at San Diego Hospice offers clinical fellowships to four fellows beginning July 1, each year. The curriculum meets current national guidelines and prepares physicians for careers in hospice and palliative care. Ten palliative medicine physicians serve as faculty in addition to interdisciplinary team members. Fellows will develop teaching skills in ongoing programs for medical students and residents. Successful graduates are eligible for certification by the American Board of Hospice and Palliative Medicine. Preferred candidates will be board-eligible or board-certified by an ABMS-recognized board. Up to 2 fellows planning an academic career may continue for a second research year. For more information, please contact the program director, Charles F. von Gunten, MD, PhD, at cvongunten@sdhospice.org or 619-278-6225. San Diego Hospice is a teaching and research affiliate of the University of California, San Diego School of Medicine.

Harvard Medical School, Program in Palliative Care Education and Practice 2003

The Harvard Medical School Center for Palliative Care offers the Program in Palliative Care Education and Practice on April 29-May 6 and November 11-18, 2003 in Boston, Massachusetts. Co-directed by J. Andrew Billings, MD and Susan D. Block, MD, the course provides intensive training for physician- and nurse-educators who wish to become experts in the clinical practice and teaching of palliative care. Participants will deepen their clinical skills in various aspects of end-of-life care, extend their repertoire of teaching methods and curricular design, and learn approaches to program development and institutional change. Faculty who complete the course will be prepared to teach others about end-of-life care, create innovative educational programs, and lead clinical service reform, including building palliative care services. During the 6-month interim between course blocks, participants work on an individual project and contribute to weekly e-mail exchanges about problematic cases presented by other participants. For more information or application materials, please call 617-724-9509, e-mail pallcare@partners.org, or visit www.hms.harvard.edu/cdi/pallcare.

Palliative Care Fellowship

The Massachusetts General Hospital Palliative Care Service offers BE/BC physicians a 1-year fellowship in palliative care. For additional information: contact J. Andrew Billings, MD, at 617-724-9196 or email jbillings@partners.org.

CALENDAR OF EVENTS

March

- 13-15 *Enhancing Communication Skills in Palliative Care*, Harvard Medical School, Boston, MA. For additional information, see their webpage at <http://www.hms.harvard.edu/cdi/pallcare> or call 617-724-9509.
- 27-28 *Spirituality & Healing in Medicine: A Multicultural Approach*, Indianapolis, IN. For additional information on this course, see the GWish website at <http://www.gwish.org>.

April

- 1-3 *6th International Conference Integrating Research on Spirituality and Health and Well-being into Service Delivery*, The Natcher Center, National Institutes of Health, Bethesda, MD. For additional information, see webpage at <http://www.icihs.org>.
- 2-5 *8th Congress of The European Association For Palliative Care*, The Hague, The Netherlands. For additional information, email eapc03@kenes.com or see their webpage at <http://kenes.com/eapc>.
- 9 *First PoPCRN Convocation. Denver, Colorado. Further information forthcoming.*
- 10-12 *4th Joint Clinical Conference and Exposition on Hospice and Palliative Care*, National Hospice and Palliative Care Organization, Denver, CO. For additional information, see their webpage at <http://www.nhpco.org>.

August

- 2-4 *4th National Conference on Hospice and Palliative Care Volunteerism: Passionate Volunteers: New Horizons in End of Life Care*, National Hospice and Palliative Care Organization, Columbus, OH. For additional information, see their webpage at <http://www.nhpco.org>.

September

- 2-6 *European Federation of IASP Chapters, Pain in Europe IV*, Prague, Czech Republic. For additional information, email Pain2003@cbttravel.cz or call 42-2-2494-8708.

March 2004

- 23-25 *5th Joint Clinical Conference and Exposition on Hospice and Palliative Care*, National Hospice and Palliative Care Organization, Las Vegas, NV. For additional information, see their webpage at <http://www.nhpco.org>.

PoPCRN Collaborations with the 4th Joint Clinical Conference, April 10-12, 2003

- ♦ *April 9, 1:00 – 7:30 PM: PoPCRN Convocation*
- ♦ *April 9, 8:30 AM – 4:00 PM: Site Visit, Pikes Peak Hospice & Palliative Care Program (PoPCRN site)*
- ♦ *April 9, 11:00 – 11:45 AM and 3:00 – 3:45 PM: Site Visit, Hospice of Metro Denver (PoPCRN site)*
- ♦ *April 10, 10:30 AM – 12:00 PM: Too Tired to Tire Now: Managing Fatigue at the End of Life, Daniel Johnson, MD, and Jane McCabe, RN, MSN, AOCN.*
- ♦ *April 10, 2:30 – 4:00 PM: Perceived Barriers to Effective Symptom Management in Hospice, Mary Kazanowski, PhD, APRB, BC, AOCN; Terri Guzman, RN, BSN, MSM; Daniel Fortier, MD; and Daniel Johnson, MD.*
- ♦ *April 11, 1:30 – 3:00 PM: Education the Future Hospice Work Force: Current Experience, Practical Tips, Jean Kutner, MD, MSPH, and Kathy Egan, MA, BSN, CHPN.*
- ♦ *April 12, 9:15 – 10:15 AM: Two Current Studies on Understanding Aspects of the End-of-Life Experience: Death Anxiety and Confusion, Robin McMahon, MSW, LCSW, BCD, and David Nowels, MD, MPH.*

JOINING AND ADDITIONAL INFORMATION ABOUT PoPCRN

If you are interested in additional information about PoPCRN or being added to the PoPCRN mailing list and/or email listservs, please contact Cordt Kassner, PhD, at (P) 303.372.9364 or (E) Cordt.Kassner@uchsc.edu

PoPCRN Is...

Director:

Jean S. Kutner, MD, MSPH
General Internal Medicine
University of Colorado Health Sciences
Center
Campus Box B180
4200 East 9th Avenue
Denver, CO 80262
(O) 303-372-9086
(F) 303-372-9082
(E) Jean.Kutner@UCHSC.edu

Research Coordinator:

Cordt T. Kassner, PhD
General Internal Medicine
University of Colorado Health Sciences
Center
Campus Box B180
4200 East 9th Avenue
Denver, CO 80262
(O) 303-372-9364
(F) 303-372-9082
(E) Cordt.Kassner@UCHSC.edu

Administrative Assistant:

Terri Gould
General Internal Medicine
University of Colorado Health Sciences
Center
Campus Box B180
4200 East 9th Avenue
Denver, CO 80262
(O) 303-372-9094
(F) 303-372-9082
(E) Terri.Gould@UCHSC.edu

Site and Research Advisory Committees:

Terra Anderson, RN, MA
Grand Valley Hospice & Palliative Care
Michelle Appenzeller, RN
Hospice of Mercy
Martha Barton
Pikes Peak Hospice & Palliative Care
Connie Beehler, MD
Hospice at Riverside and Grant
Jan Bezuidenhout, MSW, CHP
Namaste Comfort Care
Al Canner, JD
Colorado Hospice Organization
Elizabeth Craig
Grace Project, Resource Coordinator
Miriam Dickinson, PhD
UCHSC, Dept. of Family Medicine
William Henderson, PhD
UCHSC, Colorado Health Outcomes Program
Tom Johnson, RN
Hospice of St. John

John Lutgring, LCSW
Roaring Fork Hospice
Debbi Main, PhD
UCHSC, Dept. of Family Medicine
Janelle McCallum-Orozco
Hospice of Metro Denver
David Nowels, MD, MPH
UCHSC, Dept. of Family Medicine
Donna Roberts, RN, BSN, DTR, BA
Hospice of the Plains, Inc.
Shareefah Sabur
Hospice of the Western Reserve
Jane Sharkey, RN
Sangre de Cristo Hospice & Palliative Care
John Steiner, MD, MPH
UCHSC, General Internal Medicine
Charles von Gunten, MD, PhD
San Diego Hospice
Cathy Wagner, RN, MSN, MBA
Life Source Hospice and Palliative Care

Research Team:

Brenda Beaty, MSPH
UCHSC, General Internal Medicine
Susan Bray-Hall, MD
UCHSC, General Internal Medicine
Lucinda Bryant, PhD, MSHA, MBA
UCHSC, Center for Health Services Research
Stacy Fischer, MD
UCHSC, Geriatrics Fellow
Janet Houser, PhD
Regis University
Daniel Johnson, MD
UCHSC, General Internal Medicine
Anne Jordan, PhD

Sue A. Meyer
UCHSC, Medical Student
Linda Niebauer
UCHSC, Dept. of Family Medicine
David Nowels, MD, MPH
UCHSC, Dept. of Family Medicine
Robin Rawlings, MA
Pikes Peak Hospice & Palliative Care
William Reiquam, MD, Mhum
University of Colorado Hospital
Kieu Vu
UCHSC, General Internal Medicine

What's Poppin?
Newsletter of the Population-based Palliative Care Research Network
Volume III, Issue 3, Winter 2002

Table of Contents

<i>Feature</i>	<i>Page</i>
<i>Kernel's Corner, Jean Kutner, MD, MSPH</i>	1-2
<i>Mission Statement, Overview of Studies</i>	1
<i>Presentations, Publications, & Web-based Research</i>	2, 4
<i>PoPCRN Convocation Invitation</i>	3
<i>Featured Site: Pikes Peak Hospice & Palliative Care, Colorado Springs, Colorado. Martha Barton, President and CEO</i>	5, 8
<i>Clinical Feature: Managing Fatigue at the End of Life (Part 1): Challenging the Paradigm. Daniel Johnson, MD</i>	6-7
<i>Seven Abstracts</i>	8-11
<i>Book Review: Long Goodbye: The Deaths of Nancy Cruzan</i>	12
<i>Information on Current and Upcoming Studies</i>	13
<i>Announcements</i>	13
<i>Calendar of Events</i>	14
<i>PoPCRN Collaborations with the 4th Joint Clinical Conference</i>	14
<i>Joining and Additional Information About PoPCRN!</i>	14
<i>PoPCRN Is...</i>	15

The Population-based Palliative Care Research Network
University of Colorado Health Sciences Center
General Internal Medicine, Campus Box B180
4200 East 9th Avenue
Denver, CO 80262