Wendi LeBrett
Independent Study Project
Spring 2018

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Economic impact of palliative care among elderly cancer patients.

Wendi G. Lebrett, Eric Roeland, Andrew Bruggeman, Heidi Yeung, James Don Murphy; University of California San Diego, La Jolla, CA; University of California San Diego Moores Cancer Center, La Jolla, CA; University of California San Diego School of Medicine, La Jolla, CA; University of California San Diego, La Jolla, CA

Abstract Text:

Background: Randomized trials among advanced cancer patients demonstrate that early palliative care integration into usual oncology care reduces symptom burden, improves quality of life and caregiver outcomes, and may improve survival. The impact of palliative care on health economics remains poorly defined and reported cost savings are an unintentional consequence of providing care aligned with patient goals. This study determined the impact of palliative care on healthcare costs among elderly patients with advanced cancer.

Methods: We conducted a matched case-control study among Medicare beneficiaries with metastatic lung, colorectal, breast and prostate cancers. We matched patients who received a palliative care consultation to similar patients who did not receive a palliative care consultation. To determine the economic impact of a palliative care consultation we compared costs between cases and controls before and after the palliative care intervention. Costs included inpatient, outpatient, home health care, hospice, and medical equipment, and were adjusted to 2011 dollars.

Results: Among the 2,576 patients in this study the total healthcare costs per patient in the 30 days before palliative care consultation was balanced between palliative care ($12,881) and non-palliative care control patients ($12,335). Palliative care intervention reduced total healthcare costs after the intervention. The total cost of care per patient in the 120 days after palliative care exposure was $6,880 compared to $9,604 for controls (28% decrease; $p < 0.001$). The economic effect of palliative care depended on timing of the consult. Palliative care consultation within 7 days of death decreased healthcare costs by $975, whereas palliative care consultation more than 4 weeks from death decreased costs by $5,362.

Conclusions: This study demonstrates that palliative care has the capacity to substantially reduce healthcare expenditures among advanced cancer patients. Furthermore, the cost reduction depends on timing of the palliative care consult.

Abstract 91

Economic Impact of Palliative Care Among Elderly Cancer Patients

Wendi LeBrett, BA[1], Eric Roeland, MD[1], Andrew Bruggeman, MD[1], Heidi Yeung, MD[1], James Murphy, MD MS[1]

[1] Moores Cancer Center, University of California, San Diego, La Jolla, CA.

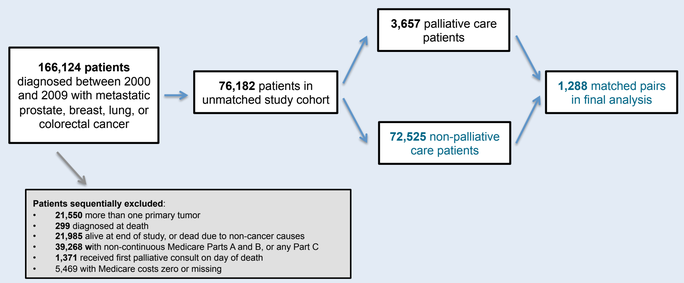
INTRODUCTION

Randomized trials among advanced cancer patients demonstrate that early palliative care integration into usual oncology care reduces symptom burden, improves quality of life and caregiver outcomes, and may improve survival. The impact of palliative care on health economics remains poorly defined and reported cost savings are an unintentional consequence of providing care aligned with patient goals. This study determined the impact of palliative care on healthcare costs among elderly patients with advanced cancer.

METHODS

We conducted a matched case-control study among Medicare beneficiaries with metastatic lung, colorectal, breast and prostate cancers. We matched patients who received a palliative care consultation to similar patients who did not receive a palliative care consultation. To determine the economic impact of a palliative care consultation we compared costs between cases and controls before and after the palliative care intervention. Costs included inpatient, outpatient, home health care, hospice, and medical equipment, and were adjusted to 2011 dollars.

Figure 1: Patient Selection and Matching



RESULTS

Among the 2,576 patients in this study the total healthcare costs per patient in the 30 days before palliative care consultation was balanced between palliative care ($12,881) and non-palliative care control patients ($12,335). Palliative care intervention reduced total healthcare costs after the intervention. The total cost of care per patient in the 120 days after palliative care exposure was $6,880 compared to $9,604 for controls (28% decrease; $p < 0.001$). The economic effect of palliative care depended on timing of the consult. Palliative care consultation within 7 days of death decreased healthcare costs by $975, whereas palliative care consultation more than 4 weeks from death decreased costs by $5,362.

Table 1: Selected baseline characteristics

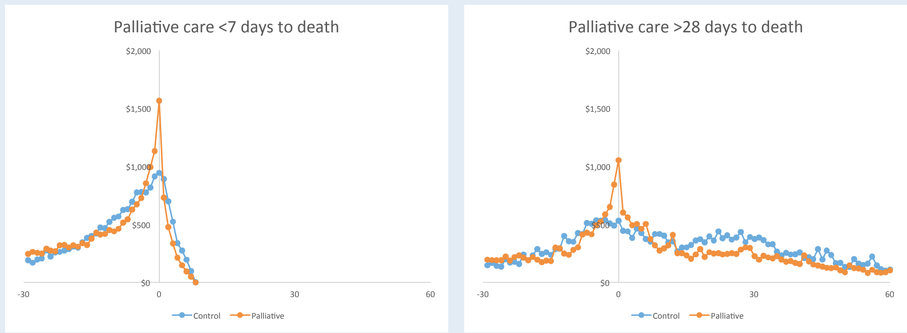
	Palliative care consult		
	No, n (%) (n = 1,288)	Yes, n (%) (n = 1,288)	Standardized Difference
Race			
White	1079 (84)	1049 (81)	0.06
Black	133 (10)	167 (13)	0.08
Other	76 (6)	72 (6)	0.01
Site			
Breast	63 (5)	51 (4)	0.05
Colorectal	198 (15)	191 (15)	0.02
Lung	984 (76)	1007 (78)	0.04
Prostate	43 (3)	39 (3)	0.02
Teaching hospital	742 (58)	868 (67)	0.20

Standardized differences less than |0.1| indicate minimal imbalance between groups.

Table 2: Healthcare costs

	Control	Palliative Care
30 days before exposure	$12,335	$12,881
120 days after exposure	$9,604	$6,880

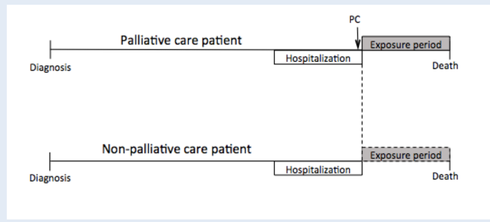
Figure 2: Effect of Timing of Palliative Care



MATCHING

Patients were matched on gender, age, year of diagnosis, region, time from diagnosis to death, and pre-exposure costs. Matched exposure periods were then determined for each pair.

Figure 3: Matching Exposure Periods



DISCUSSION

Palliative care reduced total healthcare costs after intervention among Medicare beneficiaries with advanced cancer. Furthermore, the cost reduction depends on timing of the palliative care consult. This study demonstrates that palliative care has the capacity to substantially reduce healthcare expenditures among advanced cancer patients.

Contact: wlebrett@ucsd.edu

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Economic Impact of Palliative Care Among Elderly Cancer Patients

Wendi LeBrett, Eric Roeland, Andrew Bruggeman, Heidi Yeung, James Murphy

PRESENTED AT: 2017 PALLIATIVE AND SUPPORTIVE CARE IN ONCOLOGY SYMPOSIUM | #PallOnc

Background

- Randomized trials demonstrate palliative care integration in oncology care reduces symptom burden and improves quality of life[1-7]
- Palliative care decreased healthcare utilization among Medicare beneficiaries with advanced cancer [8]
- Economic impact of palliative care has been understudied at the population level

Study

- Determine the impact of palliative care consultation on healthcare costs
- Matched case-control study among Medicare beneficiaries with metastatic lung, colorectal, breast and prostate cancers

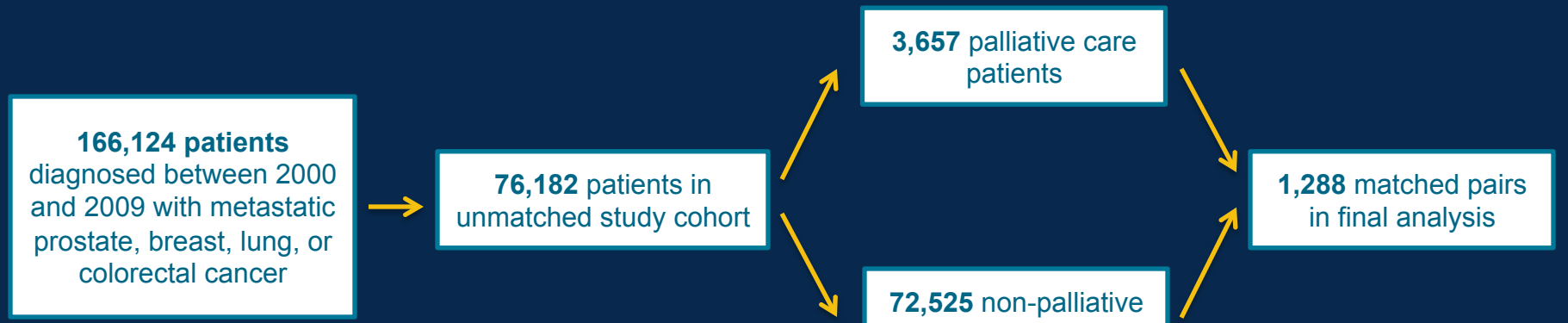
Data

- Surveillance, Epidemiology, and End Results (SEER)-Medicare linked database
- SEER cancer registry data, compiled by the National Cancer Institute
- Linked Medicare claims data for eligible patients in SEER registries

Healthcare Costs

- Medicare payments used as an estimation of healthcare costs[9]
- Payments include inpatient, outpatient, home health care, hospice and medical equipment
- Payments adjusted for geographic variation (Geographic Cost Pricing Index and Geographic Adjusted Factor)
- Payments inflation-adjusted to 2011 dollars (Medicare Economic Index and CMS Prospective Payment System Hospital Price Index)

Patient Selection

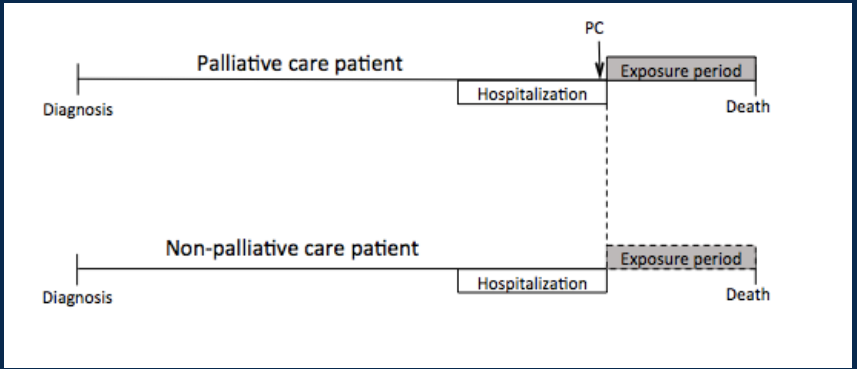


Patients sequentially excluded:

- **21,550** more than one primary tumor
- **299** diagnosed at death
- **21,985** alive at end of study, or dead due to non-cancer causes
- **39,268 w**ith non-continuous Medicare Parts A and B, or any Part C
- **1,371** received first palliative consult on day of death
- 5,469 with Medicare costs zero or missing

Matching

- Patients were matched on gender, age, year of diagnosis, time from diagnosis to death, and pre-exposure costs
- Matched exposure periods were determined for each pair



Baseline Characteristics

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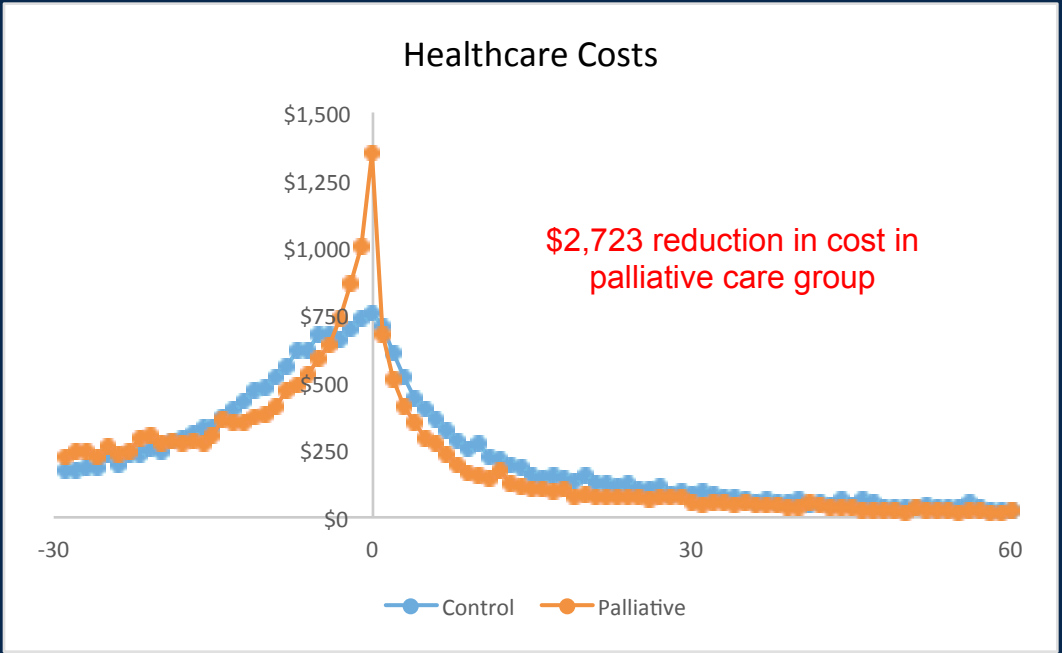
Healthcare Costs

	Control	Palliative Care
30 days before exposure	$12,335	$12,881
After exposure	$9,604	$6,880

28% difference ($p<0.001$) in healthcare costs between palliative care and control groups after exposure

Healthcare Costs



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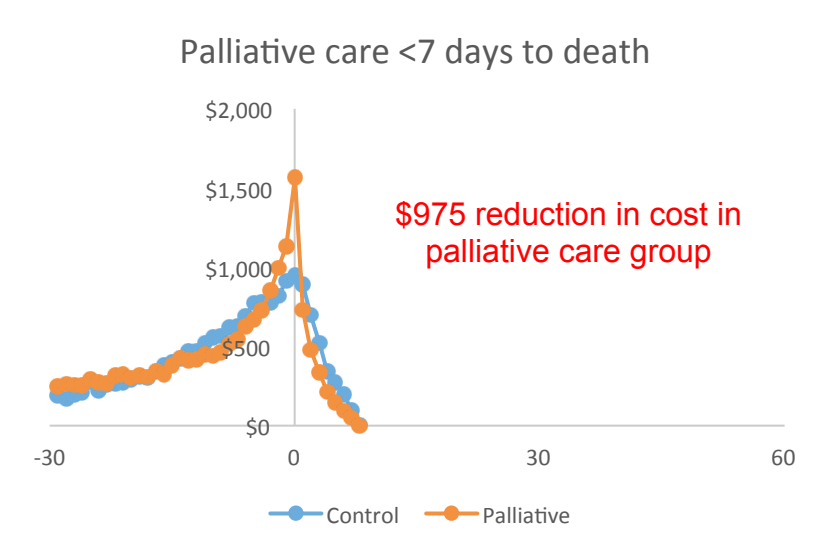
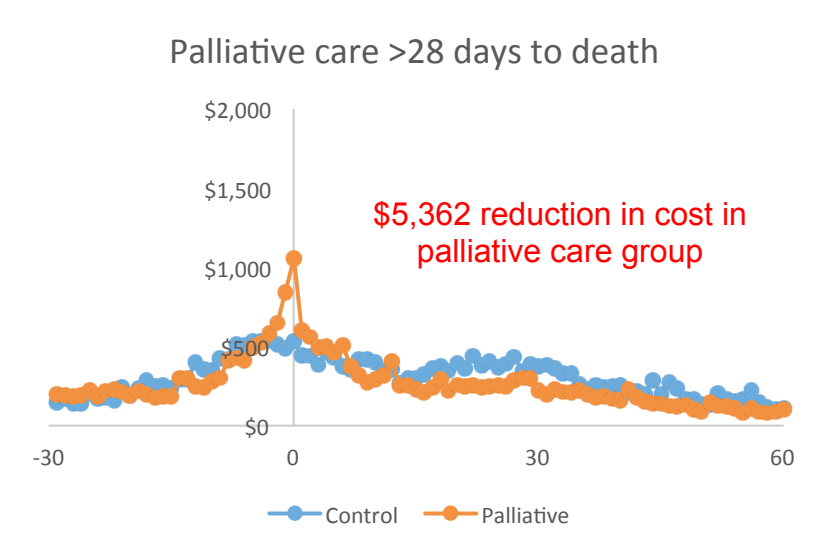
Timing of Palliative Care





Discussion

- Palliative care has the capacity to substantially reduce healthcare expenditures among advanced cancer patients (595,000 cancer-related deaths in 2016)
- Early palliative care has the potential for substantial costs savings if implemented across the country among cancer patients

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1. Temel JS, Greer JA, Muzikansky A, et al. Early palliative care for patients with metastatic non–small-cell lung cancer. *New England Journal of Medicine.* 2010;363(8):733-742.
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Advancing Care Across the Cancer Continuum

By Jo Cavallo

November 25, 2017

Addressing the need to integrate palliative and supportive care practices into medical specialties to ensure optimal patient-centered care across the cancer continuum and the evidence-based remedies to accomplish that goal were the focus of the nearly 300 study abstracts presented at the 2017 Palliative and Supportive Care in Oncology Symposium held on October 27–28 in San Diego. As in past years, this year's gathering attracted over 600 attendees in multidisciplinary specialties, including oncology, nursing, palliative care, social work, and psychiatry, as well as patients, patient advocates, and caregivers from a variety of countries, including the United States, Canada, United Kingdom, France, Italy, and China.

Cosponsored by ASCO, the American Academy of Hospice and Palliative Medicine (AAHPM), the American Society for Radiation Oncology (ASTRO), and the Multinational Association of Supportive Care in Cancer (MASCC), this year's meeting included six general sessions, two oral abstract sessions, and two poster sessions as well as the inaugural presentation of the Walther Cancer Foundation Palliative and Supportive Care in Oncology Endowed Award and Lecture.

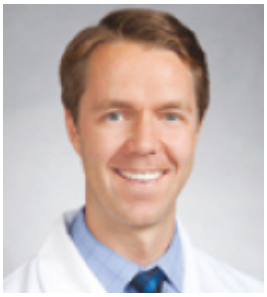
Anthony L. Back, MD, Professor of Medicine at the University of Washington Cambia Palliative Care Center of Excellence and the Fred Hutchinson Cancer Research Center, giving his presentation on Clinician Burnout: Why We Need a Multilevel, Multistakeholder Response, after receiving the Walther Cancer Foundation Palliative and Supportive Care in Oncology Endowed Award and Lecture. Photo ©ASCO/Phil McCarten 2017.

The award was presented to **Anthony L. Back, MD**, Professor of Medicine at the University of Washington Cambia Palliative Care Center of Excellence and the Fred Hutchinson Cancer Research Center and cofounder of VitalTalk, an interactive development course for clinicians and faculty to improve patient-clinician communication. During his presentation, Dr. Back spoke about clinician burnout and the need for a multilevel, multistakeholder response to the problem, which affects more than 45% of oncologists and 62% of palliative care specialists and is on the rise, according to Dr. Back.

"[Physician] burnout is a systemic problem, and we need to take action now," said Dr. Back. "Clinicians can build resilience with training and practice … to make you less susceptible to the stressors you face every day." Clinicians can augment their resilience skills, said Dr. Back, by managing their energy level during the day through improving sleep patterns, using attention mindfully, finding healthy boundaries, reframing cognitive distortions, calibrating expectations, regulating emotions, and discovering meaning in everyday life.

Prognostication in the Era of Immunotherapy

The general sessions at this year's meeting focused on the integration of innovative models of oncology and palliative care; the unique supportive and palliative care challenges of treating older adults with cancer; symptom management to address issues such as insomnia, fatigue, and nausea; opioid risk assessment and management; sexual health; and palliative radiation therapy and palliative surgery. The symposium also included an important breakout session on palliative and supportive care in the immunotherapy era and featured a presentation by **Eric Roeland, MD, FFHPM**, Assistant Clinical Professor at the University of California, San Diego, on the difficulty of prognostication in the setting of immunotherapy.



Eric Roeland, MD, FFHPM

Andrew Epstein, MD

"Our ability to accurately prognosticate the course of a patient's cancer trajectory is more challenging now that we have therapies that are sometimes producing better results than the results we were getting with the more conventional cytotoxic chemotherapies," said **Andrew Epstein, MD**, Chair of the 2017 Palliative and Supportive Care in Oncology Symposium News Planning Team and Assistant Attending Physician at Memorial Sloan Kettering Cancer Center. "But we have to be mindful that, unfortunately, immunotherapy and other precision medicine therapies are not currently benefiting the majority of patients with cancer. And we have to be even more patient-centered in our delivery of care, as we become more hopeful about the molecular underpinnings that may be leveraged for some patients."

He continued, "I liked Dr. [Eric] Roeland's model using [the clinician's] gut, brain, and heart as a necessary combination of human factors to best guide patients in prognostication about their cancer. We need to always keep his motto in mind: Hope for the best, prepare an emergency plan, and expect the unexpected."

Financial Benefit of Early Palliative Care

The results from several study abstracts drew particular attention at this year's symposium, including a study by **Wendi G. Lebrett, BA**, a medical student at the University of California, San Diego, and her colleagues, on the economic impact of early palliative care among elderly patients with advanced cancer.[1] The findings from her study show that the economic impact of palliative care depended on the timing of the consultation. For example, a palliative care consultation within 7 days before death decreased health-care costs by $975. However, a palliative care consultation more than 4 weeks from death decreased costs by more than $5,000 (see page 67 for more on this study).

> [Physician] burnout is a systemic problem, and we need to take action now.
>
> — *Anthony L. Back, MD*
>
> *Tweet this quote*

"The findings from this study parallel the 'value in cancer care' equation, which ASCO has embraced as a very important factor in not only improving the benefits of care, but in decreasing health-care costs, as well," said Dr. Epstein. "What was new from Wendi Lebrett's presentation is that the economic impact was shown on a population level, which is important to realize, especially as we recently have seen different models of medical care emerging that are more value-based than volume-based."

The oral abstract sessions showcased studies on the positive effects of early integrated palliative care on patients' coping skills, quality of life, and depression[2] as well as interventions to improve psychosocial outcomes in adolescents and young adults with cancer.[3] These presentations provided evidence on how palliative care is effective in giving patients the emotional tools necessary to cope with a cancer diagnosis and in improving patient-centered outcomes.

New this year was a general session devoted exclusively to sexual health, intimacy, and palliative care, including what research is showing in sexual health and body image, interventions to facilitate sexual health, and how to overcome the difficulty of talking with patients about the potential sexual side effects of cancer and its treatment.

Anne Katz, PhD, RN, FAAN

"Sexuality ... is still something considered taboo in oncology care and perhaps even more so in palliative care," said **Anne Katz, PhD, RN, FAAN**, a certified sexuality counselor at CancerCare Manitoba, during her presentation, "Talking About Sexuality With Patients: Models, Myths, and Motivations." She cited research showing that nearly half of patients with cancer never talk to their health-care provider about their sexual health concerns.[4]

Educating patients about all the potential side effects of cancer and its treatment, including sexual dysfunction, and their impact on patients' quality of life is critical in providing high-quality oncology care. "I believe we have an absolute and fundamental responsibility to talk about the sexual consequences of treatment because we talk about all the other consequences, too," said Dr. Katz.

Maintaining a Personal Touch

Also presented at the symposium was new research examining patient-physician communication and the preference of patients with advanced cancer to have their physicians speak with them face-to-face, with just a notepad in their hand to record their interaction rather than repeatedly turning to a computer to input information. The result of the randomized clinical trial shows that patients perceived physicians who communicated face-to-face without the use of a computer as being more compassionate, professional, and having better communication skills.[5]

"This study is a reminder to all of us to minimize as much as possible the interruptions that often come with the use of technology when we are communicating directly with patients," said Dr. Epstein.

The importance of personalizing care for patients through face-to-face interaction and the impact of

Angelo E. Volandes, MD, MPH, Assistant Professor of Medicine at Massachusetts General Hospital, giving his keynote lecture on The Conversation: A Revolutionary Plan for End-of-Life Care. The misalignment between the type of care people want at the end of life and the care they actually receive is the most urgent problem in health care today, said Dr. Volandes. Photo ©ASCO/Phil McCarten 2017.

Wendi G. Lebrett, BA, presents the results from her study on the economic impact of early palliative care among elderly patients with advanced cancer (Abstract 91), at the Palliative and Supportive Care in Oncology Symposium on October 27, 2917. Photo ©ASCO/Phil McCarten 2017.

technology on patient care was also the subject of the keynote lecture by **Angelo E. Volandes, MD, MPH**, Assistant Professor of Medicine at Massachusetts General Hospital, and author of *The Conversation: A Revolutionary Plan for End-of-Life Care*.[6]

Despite the fact that most people (90%) want to die at home, two-thirds of patients over age 65 die in the hospital, said Dr. Volandes. That misalignment between the type of care people want and the care they actually receive is what Dr. Volandes considers the most urgent problem in American health care today.

Dr. Epstein agreed. "Patient centeredness has always been important, but in this age of more sophisticated technology to diagnose and treat our patients, we have to become patient-centered in terms of really knowing who the patient sitting in front of us is and what is important to him or her as the disease takes its course, including at the end of life," said Dr. Epstein. "As physicians, we have to do a better job of inquiring what our patients' concerns are and assuring them that we will do our best to address those concerns."

Providing Optimal Care for Patients

The overarching theme throughout the 2-day symposium was the promotion of the integration of palliative and supportive care practices for patients with cancer from diagnosis through survivorship and end of life utilizing both a multi- and interdisciplinary approach.

Jamie H. Von Roenn, MD, FASCO

"This year's Palliative and Supportive Care in Oncology Symposium highlighted the need for collaboration among specialties for the provision of optimal oncology care," said **Jamie H. Von Roenn, MD, FASCO**, ASCO's Vice President of Education, Science, and Professional Development. "The presentations and discussions of the difficulty of prognostication in this era of precision medicine, prescribing opioids in the midst of an opioid crisis in the United States, and improving patient outcomes with integrated palliative and oncology care underscored this point."

DISCLOSURE: Drs. Back, Epstein, Katz, Volandes, and Von Roenn, and Ms. Lebrett, reported no conflicts of interest.

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MORE ON PHYSICIAN BURNOUT

For more on physician burnout and how to protect against the problem, see an interview with **Anthony L. Back, MD**, on *The ASCO Post Newsreels* at www.ascopost.com/videos.

SAVE THE DATE

Next year's Palliative and Supportive Care in -Oncology -Symposium will be held on -November 16–17, 2018, in San Diego.

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- Arti Hurria, MD, on Survivorship Care for the Aging Population

Palliative Care Intervention Reduces Total Health-Care Costs in Patients With Advanced Cancer

By Chase Doyle

November 25, 2017

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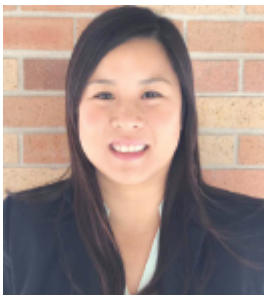
A matched case-controlled study among Medicare beneficiaries with metastatic lung, colorectal, breast, and prostate cancers has found that palliative care consultation significantly reduced total health-care costs following intervention. According to data presented at the 2017 Palliative and Supportive Care in Oncology Symposium,[1] the average total cost of care for patients after receiving palliative care at any time over the course of their treatment was $6,880 compared to $9,604 for controls ($P < .001$). Moreover, the authors reported that the economic effect of palliative care depended on the timing of the consult. Palliative care consultation within 7 days of death decreased health-care costs by $975, whereas palliative care consultation more than 4 weeks from death decreased costs by $5,362.



"If we apply the average $3,000 cost savings to the 600,000 cancer-related deaths in 2016, this approximates to $1.8 billion in potential cost savings," said **Wendi G. LeBrett, BA**, a medical student at the University of California, San Diego. "Palliative care has the capacity to substantially reduce health-care costs among advanced cancer patients, and early palliative care in particular appears to be a key driver in determining the magnitude of potential cost reduction."

Although randomized trials have demonstrated that early palliative care integration into usual oncology care reduces symptom burden, improves quality of life and caregiver outcomes, and may improve survival,[2] as Ms. LeBrett reported, the impact of palliative care on health economics remains poorly defined.

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>
> — *Wendi G. LeBrett, BA*
>
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"Our group recently published a study showing that palliative care is associated with decreased health-care utilization in patients with advanced cancer," said Ms. LeBrett. "The next logical step was to see what fewer health-care interventions actually meant in terms of dollars and cents."

SEER-Medicare Linked Data Analysis

In order to quantify the economic impact of palliative care, Ms. LeBrett and colleagues used data from the Surveillance, Epidemiology, and End Results (SEER)-Medicare Linked Database, compiled by the National Cancer Institute. Starting with 166,124 Medicare beneficiaries diagnosed between 2000 and 2009 with metastatic lung, colorectal, breast, and prostate cancers, the researchers excluded patients who met at least one of the following criteria: more than one primary tumor; diagnosis at death; alive at the end of the study; death due to noncancer causes; or noncontinuous or missing Medicare coverage. Patients who received their first palliative consult on the day of their death (n = 1,371) were also excluded.

IMPACT OF PALLIATIVE CARE ON COSTS

- The average total cost of care per patient after palliative care exposure decreased by 28% compared to control ($P < .001$).
- The economic effect of palliative care depended on the timing of the consult.

After applying these exclusion criteria, investigators were left with 3,657 palliative care patients, as the vast majority of patients (n = 72,525) had not received palliative care. Ms. LeBrett and colleagues then matched patients who received a palliative care consultation with an appropriate control in the non–palliative care group. Patients were matched on gender, age, year of diagnosis, region, time from diagnosis to death, and preexposure costs. Matched exposure periods were then determined for each pair. Investigators included 1,288 matched pairs in the final analysis.

"We used Medicare payments as an estimation of health-care costs," said Ms. LeBrett, who noted that researchers were interested in analyzing all direct medical costs. "These costs included inpatient, outpatient, home health care, hospice, and medical equipment, and they were adjusted to 2011 dollars as well as geographic variation."

Although selected baseline characteristics for both groups were well balanced, said Ms. LeBrett, 67% of patients in the palliative care group received care from a teaching hospital compared to 58% in the control. According to Ms. LeBrett, this outcome is consistent with the literature, which has shown that patients who receive palliative care are also more likely to be treated at a teaching hospital.

Decreased Health-Care Costs With Palliative Care

As Ms. LeBrett reported, total health-care costs per patient in the 30 days before palliative care consultation were balanced between palliative care ($12,881) and non–palliative care control patients ($12,335). Following the intervention, however, palliative care intervention reduced health-care costs by 28% ($P < .001$).

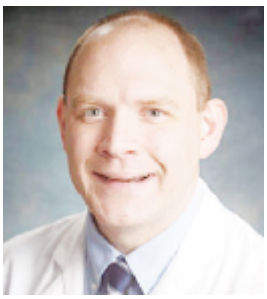
"After exposure to palliative care, patients in the palliative care group consistently had lower average daily costs than their control counterparts," said Ms. LeBrett. "On average, this resulted in approximately a $3,000 reduction in overall cost in the palliative care group compared to control."

The total cost of care per patient after palliative care exposure was $6,880, compared to $9,604 for controls. According to the authors, the timing of palliative care was also a significant factor in determining the magnitude of health-care cost reduction. Patients who -received palliative care within 7 days of death had an average $975 reduction in overall health-care costs compared to matched counterparts, whereas palliative care consultation more than 4 weeks from death decreased costs by $5,362.

"We believe these differences in costs based on timing are due to the fact that this is a longer length of time that palliative care can have an effect and change behavior," Ms. LeBrett observed.

Benefits Beyond Symptom Management

According to Keith Mark Swetz, MD, MA, FACP, FAAHPM, HMDC, Associate Professor of Medicine and Section Chief of Palliative Care at the Birmingham VA Hospital, University of Alabama School of Medicine, the study by LeBrett et al demonstrates that palliative care offers benefits beyond concrete symptom management and improved quality of life.[3]



"Based on these data, there also are substantial financial benefits that can be had with palliative care," said Dr. Swetz, who noted that successful palliative care intervention ultimately comes down to the patients. "While we're looking for consistency, we must remember that we are dealing with individual patients with individual needs. We want to make sure that we give them the opportunity to address those needs."

Eduardo Bruera, MD, FAAHPM, Medical Director, Department of Supportive Care Center, The University of Texas MD Anderson Cancer Center, Houston, added that this research provides palliative care clinicians with another way to justify their work.

"We can take advantage of this methodology and apply it at our own centers to show the cost benefits of palliative care," said Dr. Bruera. ▪

DISCLOSURE: Ms. LeBrett, Dr. Swetz, and Dr. Bruera reported no conflicts of interest.

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>
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Early Palliative Care Is Key Driver in Reducing Costs

Roxanne Nelson, BSN, RN

October 30, 2017

SAN DIEGO, California — Palliative care can substantially reduce healthcare costs for advanced cancer patients, and when initiated early, it is a key driver in lowering expenditures, according to a new study.

"To put it into context, we took the average savings of approximately $3000 per patient [found in the study] and applied it to the 595,000 cancer deaths in 2016," said lead author Wendi G. Lebrett, a medical student at the University of California, San Diego. "That is approximately $1.8 billion in cost savings, and this helps highlight the impact of palliative care."

Lebrett presented the findings of her study at the Palliative Care in Oncology Symposium (PCOS) 2017.

A number of recent studies have investigated the impact of palliative care on healthcare utilization and its potential for reducing costs. One study conducted at Johns Hopkins Medicine found that opening a palliative care unit saved the facility $367,751 in direct costs.

Another study showed that palliative care substantially reduces aggressive end-of-life care compared with end-of-life care with no palliative component, which in turn would lower related costs.

Lebrett explained that her group has also previously found that palliative care decreases healthcare utilization, so "the next logical question is that if it decreases utilization, then what does this mean in dollars and cents?"

Quantifying the impact of palliative care has been understudied by investigators, she pointed out.

The Earlier the Palliative Care, the Lower the Cost

To determine the impact of palliative care — and of the timing of that care — on healthcare costs among elderly patients with advanced cancer, Lebrett and colleagues compared cost between case patients and control patients before and after the palliative care intervention. All

direct costs were included, such as costs associated with inpatient, outpatient, and home healthcare, as well as hospice care and medical equipment.

Using SEER data, they identified 166,124 elderly patients with advanced disease. After applying exclusion criteria, about 3600 patients had received palliative care. "The vast majority — 72,000 — had not," she said.

They further excluded about 1400 patients because they had their first palliative care consult on the day of their death, and therefore the timing was not sufficient for that care to have had an impact on their healthcare costs.

The final analysis included 1288 matched pairs.

The demographics were balanced between the two groups, but more of the palliative care patients had been treated in a teaching hospital compared to the control patients (67% vs 58%).

"This is consistent from what we know in the literature, that patients who receive palliative care are also more likely to be treated at a teaching hospital," she pointed out.

Among the entire cohort of 2576 patients (ie, the matched pairs), the total healthcare costs per patient in the 30 days before palliative care consultation were similar between palliative care patients ($12,881) and control patients ($12,335).

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However, after the initiation of palliative care, total healthcare expenditures declined. The total cost of care per patient in the 120 days after palliative care began was $6880 vs $9604 for control patients — a 28% decrease in spending ($P < .001$).

Timing of palliative care was very important with respect to cost. When a palliative care consultation took place within 7 days of death, healthcare costs declined by $975, but when the palliative care consultation occurred more than 4 weeks before death, costs decreased by $5362.

"The palliative care patients had consistently lower average daily costs compared to controls," said Lebrett. "Timing of care was a significant factor in determining the magnitude of savings in cost."

High Priority and Skill Set Needed

Approached for an independent comment, Steven D. Pearson, MD, president, Institute for Clinical and Economic Review, Boston, Massachusetts, explained that making high-quality palliative care available to patients with cancer should be a high priority for all clinicians, provider groups, and insurers.

"The evidence continues to pile up that it can improve patient outcomes and reduce costs, but there are structural problems with the way that care is paid for and in the ability to identify high-quality providers of palliative care," he told *Medscape Medical News.* "There is also a gap in the awareness and ability of clinicians to integrate palliative care into their practices.

"Many clinicians think they can do it themselves, but there is a clearly defined skill set that really requires specific training, and so most oncologists will need to figure out how to collaborate with clinicians — but not necessarily physicians — who can provide these services in a seamless way," Dr Pearson added.

Wendi Lebrett has disclosed no relevant financial relationships. Dr Pearson is president of the Institute for Clinical and Economic Review.

Palliative Care in Oncology Symposium (PCOS) 2017. Abstract 91, presented October 27, 2017.

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