

with a serious illness, and you hope for improvement, even for a cure, you have to generate a different vision of your condition in your mind. This picture is painted in part by assimilating information about the disease, and its potential treatments. But hope also involves affective forecasting—the comforting, energizing, elevating feeling that you experience when you project in your mind, a positive future. This required the brain to generate a different affective or feeling state than the one you are currently in.”

Relatively new programs are adopting meaning-based therapy developed to help patients with cancer reconnect with sources of meaning in life (love, family, nature) and learn that when cancer produces obstacles there is always an internal source of escape and focus. The work was based on the writings of Viktor Frankl, the Austrian psychiatrist who survived Auschwitz with a conviction that people can endure suffering if their life has meaning.

As Frankl says, “Life holds meaning for each and every individual, and even more, it retains this meaning literally to his last breath . . . Even the tragic and negative aspects of life such as unavoidable suffering, can be turned into a human achievement by the attitude which a man adopts toward his predicament . . . transforming despair into triumph.”<sup>3</sup>

Undergoing this 8-week program helps remove fear and overcome the defeat of suffering. Fortunately I have experienced meaning-based therapy and will take these tools with me into the transplant unit, where I know I will need them.

## References

1. Fromme EK, Hebert RS, Carrese JA: Self-doctoring: A qualitative study of physicians with cancer. *J Fam Pract* 53:299-306, 2004
2. Groopman J: *Anatomy of Hope*. New York, NY, Random House, 2004
3. The George Washington Institute for Spirituality and Health; <http://www.gwish.org/>

## Conclusion

Fortunately for patients, many oncologists have participated in available educational programs about palliative care. Education in palliative and end-of-life care for oncology<sup>5</sup> integrates basic palliative care principles into modern-day oncology, with the intent being to develop basic skills. This will enrich these oncologists’ practice and benefit their patients.

Many will remain skeptical of palliative care, but it will be very difficult to resist in the coming years as measurable indicators show it only improves quality of care. There are many programs from ASCO intended to support the education of the cancer care team.

Illness is part of life. As health care providers we are not immune to the effects of cancer. Remember that if you find yourself visiting the cancer center as a patient, whole-patient care will be the most effective care possible.

*Accepted for publication on June 28, 2011.*

## Author’s Disclosures of Potential Conflicts of Interest

The author indicated no potential conflicts of interest.

Corresponding author: Susan C. Stone, MD, MPH, Cedars Sinai Medical Center, 623 1/2 Mildred Ave, Venice, CA 90291; e-mail: [ssstone\\_90064@yahoo.com](mailto:ssstone_90064@yahoo.com).

DOI: 10.1200/JOP.2011.000365; posted online ahead of print at [jop.ascopubs.org](http://jop.ascopubs.org) October 18, 2011.

# Integration of Palliative Medicine Into Routine Oncological Care: What Does the Evidence Show Us?

*By David J. Debono*

Henry Ford Health System, Detroit, MI

## Abstract

Palliative medicine is now a recognized medical subspecialty. The goal of palliative medicine is to prevent and relieve suffering, and to support the best possible quality of life for patients and their families, regardless of the stage of their illness.<sup>1</sup> Typically, palliative medicine teams consist of multiple disciplines (such as physicians, advanced practice nurses, social workers, and

chaplains) to address several domains of the patient experience. Medical oncologists have routinely provided palliative care to their patients along with antineoplastic therapy. Nevertheless, there is a recognized need for an improvement in palliative care delivery to the patient with advanced cancer. This narrative review outlines recent clinical trials of palliative care being integrated into routine oncological care.

## Introduction

In 2001, the Institute of Medicine published their report, *Improving Palliative Care for Cancer*.<sup>2</sup> This report outlined shortcomings in the routine application of palliative care in the care of the patient with cancer. In the subsequent decade, a great deal of progress in palliative care in oncology has occurred and has recently been reviewed in an article published by ASCO.<sup>3</sup> Key achievements include the ongoing growth of the Multinational Association of Supportive Care in Cancer, an ever-expanding evidence base in palliative medicine, a significant increase in the number of palliative medicine programs, the publishing of national guidelines by the National Comprehensive Cancer Network<sup>4</sup> and a position paper by ASCO,<sup>5</sup> and the accreditation of Hospice and Palliative Medicine as a separate subspecialty by the American Board of Internal Medicine.

However, there remain significant barriers to patients receiving palliative care as part of their oncological care. In a provocative essay from 2009, Frerich and Kurzrock<sup>6</sup> argued that a recommendation for palliative care in patients with advanced cancer effectively eliminates the prospect of hopeful investigational therapies. They concluded that there was little room for the coexistence of palliative medicine with active oncological care. However, in their reply, Schapira et al noted that, even in those patients entering investigational trials, the application of meticulous palliative care with attention to symptom control and goal setting can and should be a necessary part of the care of the patient with advanced cancer.<sup>7</sup> This difference of opinion may reflect the lack of standardization, across institutions, of the exact components of a palliative medicine team. Also, there may be confusion about what specific interventions palliative medicine practitioners commonly provide.

This focused narrative review attempts to summarize recent clinical trials studying the integration of palliative care into routine outpatient oncological care. The review will identify trials that provide palliative care in the general sense, as well as trials that evaluate specific palliative interventions. It is hoped that this review will assist the practicing oncologist in engaging his/her local palliative medicine professional in establishing new treatment pathways that include palliative medicine earlier in the course of their patients' illnesses.

## Methods

A search of the PubMed database from January 1, 1995 to March 1, 2011 was performed. The goal of the search was to identify clinical trials of palliative care of oncology outpatients. Four searches were performed. The first search used key words of palliative, outpatient, and oncology, and the second used palliative, outpatient, and cancer. The third search used the terms palliative, ambulatory, and cancer, and the fourth used palliative, ambulatory, and oncology. The searches were limited to English language articles, clinical trials, and articles pertaining to human adults. The searches yielded 117 unique articles (Table 1). The search identified 16 articles describing nonphar-

**Table 1.** Results of Literature Review

Article Type	No. of Articles
Cancer chemotherapy clinical trial	50
Nonintervention study	24
Palliative medicine intervention	16
Other pharmacological intervention	10
Miscellaneous	8
Mechanical intervention (stent, catheter)	5
Pediatric study	2
Parenteral nutrition	1
Biological intervention (erythropoietin)	1
Total	117

macologic, palliative interventions integrated with oncological care. A secondary, manual literature review yielded an additional 10 articles.

The goal of this narrative review was to review recent literature on randomized and nonrandomized trials of palliative care integrated with routine oncological care. Trials of integrated palliative care teams as well as specific palliative care interventions are included. The review is divided into three sections: (1) establishment of integrated palliative care teams in major cancer centers, (2) clinical trials of integrated palliative care, and (3) clinical trials of specific palliative care interventions.

## Establishment of Palliative Medicine Programs at Major Cancer Centers

In 1998, ASCO published a special article outlining the importance of palliative care in the cancer care continuum.<sup>8</sup> This article helped launch the growth of palliative medicine programs at major cancer centers in the United States. One of the first such services was at the Cleveland Clinic, which actually established an inpatient consultation service as early as 1987. Their experience has been published and has been a blueprint for many other programs.<sup>9</sup>

A survey studying the availability of palliative care programs at cancer centers in the United States was recently published by Hui et al.<sup>10</sup> This survey, performed in 2009, revealed that though nearly all NCI-designated cancer centers had palliative medicine programs, only 60% had an outpatient palliative medicine clinic. Among non-NCI-designated cancer centers, 78% reported the availability of a palliative care program but only 22% had an outpatient presence. There are a number of academic centers with active palliative care programs, and for the sake of example, two of these (MD Anderson Cancer Center and Princess Margaret Hospital) have published their experience in bringing comprehensive palliative medicine care to their institutions.<sup>11,12</sup> Their programs include robust palliative care research, inpatient palliative care units, and active outpatient palliative care clinics.

The experience at these two institutions has demonstrated a number of benefits to patients. At MD Anderson, their multidisciplinary assessments have resulted in a high

number of treatment recommendations and improved symptom control and patient satisfaction.<sup>13</sup> In a phase II trial by the Princess Margaret group, improved symptom control and family satisfaction were achieved.<sup>14</sup> The evolution of active palliative care programs at these institutions and others<sup>15</sup> has provided the impetus to assess the simultaneous application of palliative medicine with routine oncological care. The Princess Margaret group is performing a large, randomized trial of simultaneous, integrated palliative care versus routine oncological care, and results are anxiously awaited.<sup>16</sup>

### Studies of the Simultaneous Application of Palliative Medicine and Routine Oncological Care

In the 1998 article by ASCO, the authors believed that it was the oncologist's responsibility to care for the patient's needs from diagnosis through the continuum that included end-of-life care.<sup>8</sup> Since that time, there has been an increasing availability of palliative medicine services, and the question has arisen whether palliative medicine services delivered in conjunction with oncology services provide added value to patients, families, and physicians.

In 1996, Pienta et al<sup>17</sup> described a small pilot program of enrolling patients with hormone-refractory prostate cancer who were receiving investigational therapies to also receive simultaneous hospice and supportive care. They reported that patients and families were very satisfied with this "transition-less" system that addressed the patients' physical and emotional needs while also providing ongoing chemotherapy and radiation therapy. In 2004, Meyers reported a trial of "simultaneous care" in 44 patients with advanced cancer receiving investigational therapy.<sup>18</sup> Those patients receiving simultaneous palliative care were assigned a nurse and social worker who provided supportive home care and support during physician visits to the cancer center. Hospice enrollment was increased in the simultaneous care group, and a nonsignificant improvement in quality of life was noted.

More recently, Temel et al<sup>19</sup> reported on a phase II study of integrated palliative care in patients with advanced non-small-cell lung cancer. Patients met with the palliative care team monthly for 6 months. Quality of life was assessed with the Functional Assessment of Cancer Therapy-Lung (FACT-L) scale, and mood was evaluated with the Hospital Anxiety and Depression Scale instrument. The authors were able to demonstrate that providing simultaneous palliative care was feasible, as 90% of patients were able to satisfactorily complete their palliative care visits and their symptom assessments. In a larger phase II study, Folwell<sup>14</sup> enrolled 150 patients with advanced cancer onto a study of integrated palliative care. Patients were assessed at baseline and again at 1 month with the Edmonton Symptom Assessment Scale (ESAS) and the Family Satisfaction with Advanced Cancer Care tool. The investigators were able to demonstrate a measurable decrease in symptoms and an improvement in family satisfaction.

Temel et al followed up their phase II study with a randomized phase III study that was published in 2010.<sup>20</sup> This study of 151 patients with advanced non-small-cell lung cancer randomly allocated patients to routine oncological care or to early simultaneous palliative care (monthly visits with the palliative care team). The palliative care team carefully assessed physical and psychosocial symptoms, attended to goals of care, and assisted in treatment planning. Health-related quality of life was measured with the FACT-L scale. Mood was assessed with the Hospital Anxiety and Depression Scale, and evidence of depression was assessed with the Patient Health Questionnaire tool. The primary findings of the study were that quality of life measured at 12 weeks was significantly improved in the early palliative care group and there was less evidence of depression in the palliative care group. There was also less aggressive end-of-life care and more hospice use in the palliative care group. Interestingly, in a secondary end point analysis, the palliative care group had an improvement in overall survival (11.6 months *v* 8.9 months).

In another study of simultaneous palliative care, Muir et al<sup>21</sup> "embedded" a palliative care physician into a busy private oncology practice. The palliative care physician provided palliative interventions as requested by the oncologist, and quality of life was monitored by the ESAS scale. A third of patients completed more than one ESAS survey, and symptom burden measurably decreased in this group. The satisfaction of the oncologists with the palliative care services was excellent.

These studies demonstrate the feasibility of simultaneous palliative care with oncological care and illustrate the potential value of this practice. However, the overall data sets are small, and larger studies in more diverse patient populations are required to more clearly establish the benefits of simultaneous palliative care in the oncology setting.

### Clinical Trials of Specific, Nonpharmacologic Palliative Interventions in Ambulatory Oncology Patients

One of the difficulties in performing research on simultaneous palliative care in oncology is defining the specific intervention to be studied. Although there are a number of studies of palliative-intent chemotherapy and other pharmacologic therapies, there is now a growing body of literature of well-defined nonpharmacologic interventions, and these are summarized below.

In 2009, Bakitas<sup>22</sup> reported on a randomized, phase III trial of the ENABLE (Education, Nurture, Advise, Before Life Ends) intervention (integrated into routine oncological care) compared with standard oncological care in patients with advanced cancer. This intervention was an advanced practice nurse-led educational intervention consisting of four weekly sessions, followed by monthly sessions thereafter. The weekly sessions were designed to empower patients to articulate palliative and end-of-life needs to their oncologist. The monthly follow-up sessions included telephone contact or face-to-face meetings with an advanced practice nurse, and could also include shared medical appointments (group sessions) with a palliative care

physician and nurse practitioner. Quality of life was monitored using the FACT palliative care scale, symptom intensity was measured with the ESAS, and mood was followed using the Center for Epidemiologic Studies Depression (CESD) scale. The intervention group demonstrated improved quality of life and improved mood. There was no difference in overall survival or resource use. This study demonstrates how a cancer center might utilize an advanced practice nurse to provide palliative services to their patient population, particularly if outpatient palliative medicine is not available.

Another intervention that has shown promise is the routine measurement of health-related quality of life at outpatient oncology visits. Both Velikova<sup>23</sup> and Detmar<sup>24</sup> have reported on randomized controlled trials of oncology outpatients. In both studies, intervention patients completed the European Organization for Research and Treatment of Cancer Quality of Life Questionnaire (EORTC QLQ-C30) instrument before oncology appointments and results were provided to the treating physician. Patient encounters were audio-taped. Detmar's study demonstrated that quality of life issues were discussed more frequently in those patients completing the quality of life instrument, and physicians believed that the intervention facilitated communication.<sup>24</sup> In Velikova's study, patients who completed surveys had a measurable improvement in quality of life, and physicians were found to explicitly utilize the quality of life data and discuss pain more often.<sup>23</sup> The majority of physicians found the intervention useful. Also, patients reported that their continuity of care was improved with the intervention, and that they found the quality of life assessment had value.<sup>25</sup>

Finally, interventions designed to facilitate life completion and to enhance spiritual well-being have recently been studied. Three different interventions have been described by Breitbart,<sup>26</sup> Steinhauser,<sup>27</sup> and Chochinov<sup>28</sup> respectively. Breitbart has reported on a pilot randomized trial of meaning-centered group psychotherapy compared with supportive group psychotherapy in patients with advanced cancer.<sup>26</sup> This weekly, 8-week intervention is based on the teachings of Victor Frankl<sup>29</sup> and attempts to enhance spiritual well-being, meaning, and purpose. In this pilot study, intervention patients showed improved spiritual well-being and sense of meaning, less anxiety, and desire for death. A larger randomized trial is underway.

In a small, pilot randomized trial, Steinhauser<sup>27</sup> studied a three-session weekly intervention. The weekly sessions centered on a patient's life story, on forgiveness, and on their heritage and legacy, respectively. The intervention consisted of interviewing the patient on these three topic areas. Patients in the intervention group showed improvements in functional status, anxiety, depression, and preparation for the end of life. In a similar intervention, Chochinov describes an intervention called dignity therapy.<sup>28</sup> In a phase II trial, dignity therapy was administered as a three-step intervention. The first centered on psychometric measurements. The second was a structured interview that attempted to outline a patient's legacy and values. The third presented the patient with an edited paper transcript of the interview that could become a legacy for the patient (followed by repeat psychometric surveys). Postintervention

improvements in suffering and depressive symptoms were seen, and a randomized phase III trial is underway at the time of this writing.

These studies again demonstrate the feasibility of performing research on palliative interventions in the advanced cancer population. They also help to shape and define what an effective palliative intervention looks like and how such interventions can benefit patients and families.

## Discussion

The integration of palliative medicine with oncological care is not a simple intervention. There are logistical issues, human resource issues, and cultural issues to overcome before an institution can successfully integrate both disciplines. Over the last several years, the oncology community has appropriately asked for an evidence base that identifies measurable benefits for their patients. This review has provided a brief overview of some of that evidence.

The best model for the integration of palliative medicine remains highly dependent on the local medical community. In their review published in 2010, Bruera and Hui<sup>30</sup> identified three possible models of delivering palliative medicine to oncology patients. One model identified the oncologist as the provider of both oncological care and palliative care. They note that such a model is becoming increasingly difficult as both disciplines continue to grow in complexity. A second model is called the congress model, and is often utilized in large multidisciplinary group practices. The palliative medicine consultant is one of many physicians who become involved as a patient develops more and more symptoms and complications. This model often leaves the patient and family wondering which physician is responsible for coordinating clinical decisions. Finally, the integrated model allows the oncologist to concentrate on oncological care and the palliative medicine team to coordinate other aspects of the patient's and families' needs. The integrated model is their preferred model, but of course requires that a developed palliative medicine team be in place.

This review has attempted to show that the integration of palliative medicine with oncological care has been successfully applied at a growing number of institutions. The evidence base demonstrating the effectiveness of simultaneous palliative care and oncological care is growing. Finally, phase II and phase III data of specific palliative interventions in the patient with advanced cancer provide hope that the symptom-control and psychosocial needs of patients can be reproducibly addressed with well-defined assessment instruments and intervention tools.

## Summary

There is phase III evidence that formal assessment of patients' symptoms and quality of life can lead to measurable improvements in quality of life. Quality of life assessments using validated tools should become routine in cancer centers.

There is phase III evidence demonstrating that nurse-led educational and follow-up interventions can improve quality of life of patients with advanced cancer. Formalizing such inter-



ventions in cancer centers would likely improve the experience of the patient with advanced cancer.

Simultaneous palliative care with routine oncological care has been shown to be beneficial in phase II and phase III trials. Thus, it is reasonable for oncologists and their local palliative care physicians to identify opportunities for collaboration in the care of the patient with advanced cancer.

Pilot studies of life-review and meaning-centered therapies show promise in improving the quality of life of the patient with advanced cancer. It is hoped that forthcoming phase III data will demonstrate clear value for patients and families, so that

routine use of such interventions can become part of the care of patients with advanced cancer.

*Accepted for publication on August 11, 2011.*

#### **Author's Disclosures of Potential Conflicts of Interest**

*The authors indicated no potential conflicts of interest.*

DOI: 10.1200/JOP.2011.000351; posted online ahead of print at [jop.ascopubs.org](http://jop.ascopubs.org) October 18, 2011.

## References

1. American Academy of Hospice and Palliative Medicine: Statement on Clinical Practice Guideline for Quality Palliative Care. <http://www.aahpm.org/Practice/default/quality.html>
2. Institute of Medicine: Improving Palliative Care for Cancer: Summary and Recommendations. Washington DC, National Academies Press, 2001
3. Ferris FD, Bruera E, Cherny N, et al: Palliative cancer care a decade later: Accomplishments, the need, next steps—From the American Society of Clinical Oncology. *J Clin Oncol* 27:3052-3058, 2009
4. National Comprehensive Cancer Network: NCCN Guidelines for Supportive Care. [http://www.nccn.org/professionals/physician\\_gls/f\\_guidelines.asp#supportive](http://www.nccn.org/professionals/physician_gls/f_guidelines.asp#supportive)
5. Peppercorn JM, Smith TJ, Helft PR, et al: American Society of Clinical Oncology statement: Toward individualized care for patients with advanced cancer. *J Clin Oncol* 29:755-760, 2011
6. Frerich EJ, Kurzrock R: The role of investigational therapy in management of patients with advanced malignancy. *J Clin Oncol* 27:304-306, 2009
7. Schapira L, Moynihan TJ, von Gunten CF, et al: Phase I versus palliative care: Striking the right balance. *J Clin Oncol* 27:307-308, 2009
8. American Society of Clinical Oncology: Cancer care during the last phase of life. *J Clin Oncol* 16:1986-1996, 1998
9. Zhukovsky DS: A model of palliative care: The palliative medicine program of the Cleveland Clinic Foundation: A World Health Organization Demonstrations Project. *Support Care Cancer* 8:268-277, 2000
10. Hui D, Elsayem A, De La Cruz M, et al: Availability and Integration of palliative care at US cancer centers. *JAMA* 303:1054-1061, 2010
11. Strasser F, Sweeney C, Willey J, et al: Impact of a half-day multidisciplinary symptom control and palliative care outpatient clinic in a comprehensive cancer center on recommendations, symptom intensity, and patient satisfaction: A retrospective descriptive study. *J Pain Symptom Manage* 27:481-491, 2004
12. Zimmermann C, Seccareccia D, Clarke A, et al: Bringing palliative care to a Canadian cancer center: The palliative care program at Princess Margaret Hospital. *Support Care Cancer* 14:982-987, 2006
13. Yennurajalingam S, Urbauer DL, Casper KLB, et al: Impact of a palliative care consultation team on cancer-related symptoms in advanced cancer patients referred to an outpatient supportive care clinic. *J Pain Symptom Manage* 41:49-56, 2011
14. Follwell M, Burman D, Le LW, et al: Phase II study of an outpatient palliative care intervention in patients with metastatic cancer. *J Clin Oncol* 27:206-213, 2008
15. Rabow MW, Dibble SL, Pantilat SZ, et al: The comprehensive care team: A controlled trial of outpatient palliative medicine consultation. *Arch Intern Med* 164:83-91, 2004
16. Lo C, Burman D, Hales S, et al: The FAMCARE-Patient scale: Measuring satisfaction with care of outpatient with advanced cancer. *Eur J Cancer* 45:3182-3188, 2009
17. Pienta KJ, Esper PS: The hospice supportive care program: A new "transition-less" model of palliative care for patients with incurable prostate cancer. *J Natl Cancer Inst* 88:55, 1996
18. Meyers FJ, Linder J, Beckett L, et al: Simultaneous care: A model approach to the perceived conflict between investigational therapy and palliative care. *J Pain Symptom Manage* 28:548-556, 2004
19. Temel JS, Jackson VA, Billings JA, et al: Phase II study: Integrated palliative care in newly diagnosed advanced non-small-cell lung cancer patients. *J Clin Oncol* 25:2377-2382, 2007
20. Temel JS, Greer JA, Muzikansky A, et al: Early palliative care for patients with metastatic non-small-cell lung cancer. *N Engl J Med* 363:733-742, 2010
21. Muir JC, Daly F, Davis MS, et al: Integrating palliative care into the outpatient, private practice oncology setting. *J Pain Symptom Manage* 40:126-135, 2010
22. Bakitas M, Lyons KD, Hegel MT, et al: Effects of a palliative care intervention on clinical outcomes in patients with advanced cancer. *JAMA* 302:741-749, 2009
23. Velikova G, Booth L, Smith AB, et al: Measuring quality of life in routine oncology practice improves communication and patient well-being: A randomized controlled trial. *J Clin Oncol* 22:714-724, 2004
24. Detmar SB, Muller MJ, Schornagel JH, et al: Health-related quality-of-life assessments and patient-physician communication: A randomized controlled trial. *JAMA* 288:3027-3034, 2002
25. Velikova G, Keding A, Harley C, et al: Patients report improvements in continuity of care when quality of life assessments are used routinely in oncology practice: Secondary outcomes of a randomized controlled trial. *Eur J Cancer* 46:2381-2388, 2010
26. Breitbart W, Rosenfeld B, Gibson C, et al: Meaning-centered group psychotherapy for patients with advanced cancer: A pilot randomized controlled trial. *Psycho-Oncology* 19:21-28, 2010
27. Steinhilber KE, Alexander SC, Byock IR, et al: Do preparation and life completion discussion improve functioning and quality of life in seriously ill patients? Pilot randomized control trial. *J Pall Med* 11:1234-1240, 2008
28. Chochinov HM, Hack T, Hassard T, et al: Dignity therapy: A novel psychotherapeutic intervention for patients near the end of life. *J Clin Oncol* 23:5520-5525, 2005
29. Frankl VF: *Man's Search for Meaning* (ed 4). Boston MA, Beacon Press, 1959/1992
30. Bruera E, Hui D: Integrating supportive and palliative care in the trajectory of cancer: Establishing goals and models of care. *J Clin Oncol* 28:4013-4017, 2010

