

The TEAM Approach to Improving Oncology Outcomes by Incorporating Palliative Care in Practice

Marie A. Bakitas, Areej El-Jawahri, Morag Farquhar, Betty Ferrell, Corita Grudzen, Irene Higginson, Jennifer S. Temel, Camilla Zimmermann, and Thomas J. Smith

University of Alabama at Birmingham, AL; Partners–Massachusetts General Hospital, Boston, MA; City of Hope Medical Center, Duarte, CA; New York University School of Medicine, New York, NY; University of East Anglia, Norwich; Kings College London, London, United Kingdom; Princess Margaret Cancer Centre, University Health Network, Toronto, Ontario, Canada; and Johns Hopkins University, Baltimore, MD

ASSOCIATED CONTENT



See accompanying commentary on page 567

Abstract

Palliative care (PC) concurrent with usual oncology care is now the standard of care that is recommended for any patient with advanced cancer to begin within 8 weeks of diagnosis on the basis of evidence-driven national clinical practice guidelines; however, there are not enough interdisciplinary palliative care teams to provide such care. How and what can an oncology office incorporate into usual care, borrowing the tools used in PC randomized clinical trials (RCTs), to improve care for patients and their caregivers? We reviewed the multiple RCTs for common practical elements and identified methods and techniques that oncologists can use to deliver some parts of concurrent interdisciplinary PC. We recommend the standardized assessment of patient-reported outcomes, including the evaluation of symptoms with such tools as the Edmonton or Memorial Symptom Assessment Scales, spirituality with the FICA Spiritual History Tool or similar questions, and psychosocial distress with the Distress Thermometer. All patients should be assessed for how they prefer to receive information, their current understanding of their situation, and if they have considered some advance care planning. Approximately 1 hour of additional time with the patient is required each month. If the oncologist does not have established ties with spiritual care and social work, he or she should establish these relationships for counseling as required. Caregivers should be asked about coping and support needs. Oncologists can adapt PC techniques to achieve results that are similar to those in the RCTs of PC plus usual care compared with usual care alone. This is comparable to using data from RCTs of trastuzumab or placebo, adopting what was used in the RCTs without modification or dilution.

INTRODUCTION

The benefits of structured, team-based, multidisciplinary palliative care (PC) concurrent with usual oncology care have now been demonstrated in multiple randomized trials in situations from metastatic lung cancer to hematopoietic stem cell transplantation. These benefits typically include better quality of life and symptom control, less anxiety and depression, greater prognostic awareness, less caregiver distress,

equal or better survival, and equal or lower costs. (Table 1) These data are so compelling that ASCO has stated explicitly that “every patient with advanced cancer should be seen by a PC interdisciplinary team within 8 weeks of diagnosis—establishing a new standard of care.”²⁰

The data that demonstrate the superiority of PC are derived from trials that compared concurrent PC plus usual oncology care with usual oncology care alone—and usual



DOI: <https://doi.org/10.1200/JOP.2017.022939>

Table 1. Summary of Recent Studies Comparing Usual Care With Usual Care Plus Palliative Care

Study and Population	Patient Experience					
	QOL	Symptoms	Anxiety Depression	Caregiver Distress	Survival	Cost
Brumley et al, 2007 (1/3 Ca) ¹	NM, satisfaction increased	NM	NM	NM	=	-\$7,550 per person, <i>P</i> = .03 More likely to die at home, less likely to visit ED or be admitted to hospice
Gade et al, 2008 (1/3 Ca) ²	+, <i>P</i> = .04	NM	NM	NM	=	-\$4,885 per person, <i>P</i> = .001; fewer ICU admissions, <i>P</i> = .04; longer hospice stays, <i>P</i> = .04
Bakitas et al, 2009 (Ca) ³	+, <i>P</i> = .02	+, <i>P</i> = .06	Less depressed mood, <i>P</i> = .02		Longer, 5.5 months; <i>P</i> = .14 NS	=
Temel et al, 2010 (lung Ca) ⁴	+, <i>P</i> = .03	7 lung cancer-specific symptoms better	Less depression, <i>P</i> = .01		Longer, 2.7 months; <i>P</i> = .02	Total cost was higher because patients lived longer, but cost per day was \$117 lower ⁵
Farquhar et al, 2014 (Ca as cause of breathlessness) ⁶	+ Reduced patient distress due to breathlessness, <i>P</i> = .049	NM	=	=	=	Total costs £354 (\$444) less; better QOL; dominates cost-effectiveness
Zimmermann et al, 2014 (Ca) ⁷	+, <i>P</i> = .05	= at 3 months, <i>P</i> = .33 + at 4 months, <i>P</i> = .05	NM	Better satisfaction with care, <i>P</i> = .007; = QOL ⁸	=	NR
Higginson et al, 2014 (dyspnea, most Ca) ⁹	=	+ Mastery of breathlessness, <i>P</i> = .048; Dyspnea =	=	NR	=	=
Bakitas et al, 2015 (Ca) ^{10,11}	=, <i>P</i> = .30	=, <i>P</i> = .09	Mood =	Lower depression and stress, <i>P</i> = .02 and .01, but not QOL	Longer, 6.5 months; 1-year OS, 63% v 48%; <i>P</i> = .038	NR; equal resource use
Ferrell et al, 2015 (lung Ca) ^{12,13}	+, <i>P</i> < .001	+, <i>P</i> < .001	+, <i>P</i> < .001	+; better well-being and less distress, <i>P</i> = .001; less burden, <i>P</i> = .008	Longer, 6 months; NS	NR; more ADs, 44% v 9%, <i>P</i> < .001
Grudzen et al, 2016 (patients with Ca in ED) ¹⁴	+, <i>P</i> = .03	ND	=	ND	Longer, 5.2 months; NS, <i>P</i> = .20	=; note only 25%-28% use of hospice in both groups
Temel et al, 2016 (lung, GI Ca) ¹⁵	= at week 12, <i>P</i> = .34; + at week 24, <i>P</i> = .01	NR	+, <i>P</i> = .048	+ ¹⁶	Too early to tell	NR; more likely to discuss EOL wishes, 30% v 14.5%; <i>P</i> = .004
El-Jawahri et al, 2016 (BMT) ¹⁷	+ (smaller decrease), <i>P</i> = .045	Less, <i>P</i> < .03 at 2 weeks; = at 3 months	Less, <i>P</i> < .001	No change in QOL or anxiety; less depression, <i>P</i> = .03 ¹⁸	Too early to tell	NR
Maltoni et al, 2016 (pancreas Ca) ¹⁹	+, <i>P</i> = .04	NR; FACT-Hep, HCS, and TOI all better with PC	=	=	=; 1-year OS, 32%-37%	NR; improvements in use of chemotherapy in the last 30 days, hospice LOS, place of death

Abbreviations: +, improved; =, equal; AD, advance directive; BMT, bone marrow transplant; Ca, cancer; ED, emergency department; EOL, end of life; FACT-Hep, Functional Assessment of Cancer Therapy–Hepatobiliary; HCS, Hepatobiliary Cancer Subscale; LOS, length of stay; ND, not determined; NM, not measured; NR, not reported; NS, not significant; OS, overall survival; PC, palliative care; QOL, quality of life; TOI, Trial Outcome Index.

oncology care alone was bested in all trials. There are ongoing trials to establish whether primary PC that is delivered by the oncology team alone is equal to specialty palliative care. The hypothesis of most of these trials is that oncology teams can do much of the work of specialty palliative care if the same tools and approaches are used that the concurrent PC teams use in clinical trials. Unless we use the same components of PC that are used in trials, usual oncology care remains usual oncology care, as would happen if the oncologist modified R-CHOP (rituximab plus cyclophosphamide, doxorubicin, vincristine, and prednisone) by leaving out vincristine and reducing the dose of cyclophosphamide by 50%.

What, then, is in the PC care team toolkit and how can oncologists adopt these techniques today in their practices?

THE TEAM APPROACH TO PC CONCURRENT WITH USUAL ONCOLOGY CARE

The TEAM approach (Time, Education, Assessment, and Management) components that have been distilled from clinical trials are listed in Table 2 and make it patient and family centered, education centered, and symptom centered. We include here the methods that were used in trials of an interdisciplinary team approach to concurrent PC or, in the case of Massachusetts General Hospital studies, an expert advance practice nurse or doctor backed by an interdisciplinary team if needed.

Time dedicated to identifying the patients' understanding of their illness, treatment, and prognosis was a consistent factor in the success of all PC randomized clinical trials. Such discussions can take an extra hour per month^{22,23} and may be coordinated by oncologists, possibly with the assistance of other team members—for example, an advanced practice nurse or social worker. All important aspects of a PC visit cannot be addressed by an oncologist in a 20-minute visit that concentrates on the response to chemotherapy. These visits can be in person or by phone or telemedicine, but an underlying principle is that the visit must be structured and take at least 1 hour per month. Most trials have included on the team PC advanced practice nurses and doctors who are trained in PC, as we do in most of our practices.

Education was a component of all clinical trials. In the monthly visits with the PC team, patients and families can explore realistic options. Structured topics should include the identification of patients' specific care goals, values and how to perform value-derived treatment and advance care planning decision-making. Prognostic awareness—understanding the nature of their condition as a life-limiting illness—seems to be

key and requires coaching and direct communication by the health care provider. More than two thirds of patients with lung and colorectal cancer thought their palliative chemotherapy,²⁴ radiation,²⁵ and/or surgery²⁶ could cure them. An excellent communication guide—a manual to help practitioners increase prognostic awareness—is highly recommended.²⁷ We have listed the important domains that are usually covered in Table 3.

The value of education is that patients with prognostic awareness, especially if advance medical directives were completed more than 30 days before death, die less often in the hospital (19% v 50% in Australia²⁸) and use more hospice care and for longer duration.²⁹ In a non-small-cell lung cancer trial by Temel, those in the PC group with greater prognostic awareness received intravenous chemotherapy near the end of life (EOL; ineffective fourth-line and fifth-line treatment³⁰; chemotherapy 9% of the time v 50% in the usual care group).

Those who have EOL discussions—goals of care and/or understanding of illness—are more likely to be satisfied, to die at the place of their choosing, and to have less distressed relatives³¹; however, we, as their oncologists, must start these conversations as people rarely bring it up themselves. Those who had prognostic discussions with their physicians revised their self-reported estimates downward by 17.2 months, more toward reality (months, not years), with no more depression, sadness, or anxiety, more advance directives, and better EOL care.³²

Most PC practitioners use a standardized communication approach to identify what the patient and family knows and wants to know before wading into more sensitive and difficult topics, such as prognostic awareness and delivering bad news. We have found a temporary tattoo on the inner forearm that is visible to the oncologist or advance practice nurse to be helpful in remembering a way to get started with difficult conversations³³ (Fig 1). After reviewing the four questions and getting to know the patient and assessing family understanding and goals, it is easier to do motivational interviewing: “You are doing OK now, but have you thought about a time in the future when you might be sicker, and need an advance directive or living will?”

A simple technique for oncologists to use is to address understanding and prognosis after any scan that shows progressive disease. A new study found that only four of 64 oncologist discussions about scan results had frank prognosis discussions. The authors suggested adding the question, “Would you like to talk about what this means?” to allow the patient some control as well as to obtain permission to disclose crucial information.³⁴

Table 2. The Components of TEAM-Based Palliative Care

Component	In the Trials	What Is Known
<u>Time</u>	A structured palliative care visit of at least 1 extra hour per month; repeated at regular intervals (ie, monthly); not once	These assessments can be conducted by a physician or advanced practice nurse with specific training in conducting such assessments
<u>Education</u>	Structured, prospective, and recurrent discussions about symptoms, goals, and preferences for care, prognosis understanding, advance care planning, and communication with the health care team	Education that is done prospectively and regularly, rather than during a crisis is more effective Usual topics include, on a recurring basis: Medically appropriate options for treatment; patients should know they have or have not left any medical stones unturned; this is best done by listing the treatments used and their outcomes, especially with recurrent disease; if appropriate, reinforce patient and family work as advocates. Advance care planning; durable power of attorney or proxy is not sufficient to change care patterns; a living will or advance directive is needed ²¹ Use of hospice for best possible care, and arranging a hospice information visit once it is evident the disease is going to take the person's life, with 3-6 months to live or even longer
<u>Assessment</u>	Formal assessments for: Symptoms (ESAS, MSAS-C, CAPC rounding tool); Spirituality (FICA, or "Are you a religious or spiritual person?"); Distress (Distress Thermometer, others) Psychosocial (PHQ-2) Caregiver strain It is not sufficient to just ask "How are you?"; patients and families are sometimes reluctant to share their problems for fear that nothing can be done, or that it is not in the clinician's remit, the oncologist will stop treating their cancer or they will be labeled a complainer	After these formal symptom assessments move onto goal setting We use questions such as: How do you like to get medical information? What is your understanding of your disease? What is important to you? What are you hoping for? Have you thought about a time when you might become sicker, such that you would need an advance directive or living will? (some motivational interviewing) We have incorporated this into a temporary tattoo that gives oncologists a script to start the most difficult discussions (Fig 1) If progressive disease is evident, it is time to revisit goals of care, prognosis understanding, and advance care planning
<u>Management</u>	By set protocols and an interdisciplinary team (APNs, social workers, chaplains, doctors)	Interdisciplinary care and referrals were common elements of all studies Giving people knowledge of their realistic options and a plan of action was shared across all the studies An oncology office that does not have established social work or chaplain ties should develop them, much as we develop ties with surgeons or radiation oncologists

Abbreviations: APN, advance practice nurse; CAPC, Center to Advance Palliative Care; ESAS, Edmonton Symptom Assessment Scale; FICA, Faith and Belief, Importance, Community, Address in Care; MSAS-C, Memorial Symptom Assessment Scale Condensed; PHQ-2, Patient Health Questionnaire-2.

Using and responding to formal assessment by using standard tools is usually a first step for the PC team or the oncology team to get to know the patient. Starting with symptoms is safe. Symptom assessment scales were used in nearly all trials and can help identify how the patient

and family are coping. The Edmonton Symptom Assessment System is a simple tool that measures nine common symptoms that are experienced by patients with cancer and can be completed in 5 minutes,³⁵ although all available tools—Memorial Symptom Assessment Scale, MD Anderson Symptom

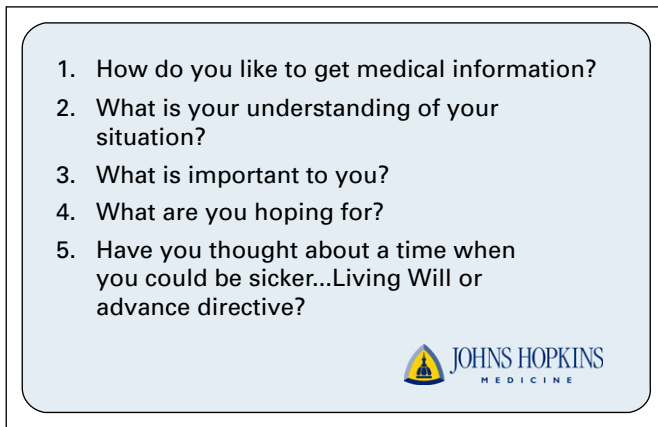


Fig 1. A temporary tattoo used as a script for starting difficult questions. Available from Thomas J. Smith for \$0.50 each.

Inventory—work.³⁶ Whereas oncologists may believe that spiritual assessment is not part of their described medical assignment, 87% of patients with cancer want us to know their spiritual needs, yet only 6% of patients were ever asked. Receiving spiritual care from the medical team was associated with a doubled use of hospice, and the number of patients who died in the intensive care unit—a marker of poor quality of care—fell from 22% to 0%.³⁷ Yet, as oncologists, we often fail at this task: In our audit of care administered to patients with glioblastoma, none had a formal outpatient symptom, spiritual, or coping assessment, with a rare statement of prognosis. Perhaps as a consequence, 37% of patients were hospitalized in the last month of life for an average of 9 days, only 17% had any advance directive in the chart, and nearly 40% received chemotherapy in the last month of life.³⁸ We hope to do better by using the formal tools that have been used in randomized trials and establishing thresholds and protocols for interventions and referral.

Management by an interdisciplinary team was also a key component of randomized trials. In one Australian trial for patients receiving PC, a structured regular meeting of the interdisciplinary team (IDT) with recommendations to the primary care physician demonstrated significant improvement compared with practitioner education, with 26% fewer hospitalizations.³⁹ Most practices will have some components of the IDT in place: Social workers, chaplains, advance practice and oncology nurses, psychologists, allied health professionals, and physicians. A key step is to identify patients who are at risk for complications and discuss them at a weekly IDT meeting to troubleshoot. Such forward thinking and anticipatory care as calling patients the day after a new chemotherapy

regimen has been a successful technique used by oncology medical home models, which has led to reduced hospitalizations and lower costs.

We do not yet know which components of the multidisciplinary team are essential. When Muir et al⁴⁰ delivered PC in oncology offices with just a physician and advance practice nurse, they showed better symptom management with a 21% decrease in symptom burden, an increase in oncologist satisfaction (necessary for them to continue to work with oncologists), and an 87% increase in consultations in 2 years. They saved each oncologist more than 4 weeks of time so that the practice could do more regular oncology, and eased the oncologist's burden as one strategy to avoid burnout. It is our opinion that these services are essential, and in our experience, providers, patients, and families greatly appreciate them, so we incorporate them within the budget. Most practices have financial counseling available, but psychosocial counseling, such as social workers or chaplains, are uncommon. Some nonreimbursable services, such as chaplaincy or a social worker, may require more formal testing before endorsement. US Oncology has adopted the best practice model of appointing someone in the office—usually a social worker or nurse—to review with a patient advance care planning within the first visits of a diagnosis of a life-limiting illness. Advance care planning was also increased substantially,⁴¹ with some practices having completed advance medical directives in up to 89% of patients.⁴² More evidence is needed to guide US cancer care with regard to the most efficient, yet effective, use of nonreimbursable support services.

The electronic health record may assist oncology practices with some aspects of incorporating PC and oncology care. For example, formal goals of care discussions can be formatted in the note template to capture some of the practical parts of these difficult conversations. This is similar to bringing up laboratory values or radiographs on the computer screen; we bring up the EPIC SmartPhrase to help remind and guide us in critical conversations, then type in the answers and print for the patient information part of meaningful use. Notes that contain this crucial information are easy to send to referring health care practitioners so that all can be on the same page (Table 4). Such an approach is now being used in a phase I study of patients receiving concurrent care and seems to be a useful work-simplifying tool.

WHAT ARE SOME OF THE CHANGES IN CARE THAT PC INVOLVEMENT BRINGS?

In addition to the changes in symptoms and quality of life noted in Table 1, PC involvement changes the course of care near

Table 3. Palliative Care Intervention Domains

Domain	Elements	Key Points
Therapeutic relationship	<ul style="list-style-type: none"> Introducing the role of palliative care Understanding the patient and caregiver experience Building trust with the patient and caregiver 	<ul style="list-style-type: none"> Develop a strong therapeutic relationship with patients and caregivers Learn about the values, life goals, and experiences of patients and their caregivers, both before and after cancer diagnosis Develop trust and credibility with patients and caregivers by providing reassurance and outlining parameters of communication
Assessment and treatment of patient symptoms	<ul style="list-style-type: none"> Preparing for symptoms Assessing and treating symptoms Coordinating symptom management with the primary team Providing referral for symptom management 	<ul style="list-style-type: none"> Clarify the symptoms the patient will likely experience and offer reassurance about the methods for reporting and treating symptoms At every visit, elicit existing and new symptom concerns with emphasis on common symptoms (nausea, pain and mucositis, fatigue, sleep disturbances, constipation, diarrhea, anxiety, and depression) Maintain ongoing, effective communication with other clinicians to define mutual collaboration and work within their preferred practice patterns Emphasize a team approach to care by referring to specialty care, mental health, alternative medicine, and spiritual support as needed
Managing patients and caregivers expectations	<ul style="list-style-type: none"> Reviewing in detail the expected illness trajectory during the illness Ensuring accurate expectations throughout treatment Enhancing patients' and caregivers' understanding and acceptance of the illness 	<ul style="list-style-type: none"> Address early on patients and caregivers' concerns about the trajectory of illness and treatment adverse effects Recognize that illness acceptance involves cognitive, emotional, and behavioral elements and offer a safe venue for patients and caregivers to ask questions about their disease and treatment options
Coping with illness and treatment	<ul style="list-style-type: none"> Reviewing and validating prior coping efforts Discussing and advocating for different methods of coping Supporting caregiver coping Providing referral for additional support 	<ul style="list-style-type: none"> Recognize that patients and caregivers bring their own expertise in coping with the current circumstance on the basis of prior experiences Introduce strategies to help improve adjustment (eg, behavioral, cognitive, and spiritual approaches; accepting illness while maintaining hope; social support) Bolster caregiver coping by assessing burden, enhancing their communication with patients, and recommending additional support Involve other members of the team for patients and caregivers who may be experiencing severe distress (eg, social work, psychology, chaplaincy)

NOTE. Modified from El-Jawahri et al¹⁷ and Temel et al.⁴ These were used by the palliative care specialist to guide the intervention. The oncologist can adapt as needed.

EOL. As a matter of course, we discuss the goals of care and set up a hospice information visit when the patient has an estimated prognosis of 6 months, the current timeframe suggested by ASCO University. If the PC team sees the patient as an inpatient, the 30-day readmission rate is cut from 15% to 10%. If, during that consultation, we have the goals of care discussion, the 30-day readmission rate is decreased from 10%

to approximately 5%.⁴³ Similar results were observed in a hospital-hospice partnership with a five-fold reduction in 30-day readmission (1% v 5%).⁴⁴

PC involvement gets more people to hospice and for longer. If the PC team saw patients who were eligible for hospice, 57% went home with hospice. If the PC team did not see them because the consultation was blocked by the

Table 4. Goals of Care Discussion Template for EPIC, Cerner, or Other Electronic Medical Records

How do you like to get medical information?
Full or something else?
How about prognosis?
What is your understanding of your situation?
What is important to you?
What are you hoping for?
If the disease is growing, acknowledge that not all things have a medical fix
Ask if the patient would like to discuss what the scan findings mean?
List the prior treatments and response to give the patient a record of what was done; it may be important for families to leave no medical stones unturned
Explore if the patient is eligible for clinical trials
Advance care planning
Do you have a will? (safe starter question)
Do you have a living will, advanced directive, or portable orders for life-sustaining treatments? (eg, POLST)
Are all of your providers aware of the wishes and proxy for your medical care that are stated in these documents?
Are documents readily available in your electronic health records and for all of your health care providers?
What does it say about CPR? (For patients imminently dying in the hospital of their cancer, the success rate of CPR is zero.)
Who do you want to make medical decisions, if you cannot?
Have you discussed this with her/him?
Are there spiritual issues to be settled?
Are there family issues to be settled?
Are there financial issues to be settled?
Have you met with hospice yet? (Plan for at least 3-6 months before death, which for most diseases is predictable; this really helps the transition if and when hospice is needed.)
Have you thought about where you would like to be for your death, if and when?
Legacy work
Let's start doing a life review—what you want people to remember about you.
And, what's important to you?
What are you hoping for?
What do you want to accomplish in the time you have?
Living day to day
Exercise
Diet
Other instructions
How to call or reach me
Office
Days
Nights
Cell
E-mail

NOTE. Fill in as you interview on the screen, then print for the patient and family. It can be done on several visits and updated as the situation changes. Abbreviation: POLST, Physician Orders for Life-Sustaining Treatment.

attending physician or came too late, only 27% went home with hospice.⁴⁵ Patients who received a PC team consultation were 3.24 times more likely to be discharged to hospice ($P < .001$), 1.52 times more likely to be discharged to a nursing

facility, and 1.59 times more likely to be discharged home with services ($P < .001$).⁴⁶ In New York Medicaid patients, referrals to hospice increased more than 10-fold if the PC team saw them.⁴⁷ Going home with hospice means a 5%

30-day readmission rate versus a 25% rate for matched patients who did not go home with hospice.⁴⁸

If PC is provided with an outpatient evaluation in the clinic, the length of stay in regular hospice is increased from 15 to 24 days ($P < .001$).⁴⁹ In one cancer center, if the PC team saw the patient more than 1 month before death, the patterns of care changed, with fewer EOL hospitalizations and \$6,687 in lower health system costs.⁵⁰ From the pioneering study in lung cancer by Temel, PC was associated with increased hospice length of stay, lower daily costs, and equal costs despite living 2.7-months longer.⁵

Hospice, in turn, improves care⁵¹ and likely improves survival.^{52,53} In one study, longer survival was associated with a 3.74-fold-lower likelihood to have high EOL care costs,⁵⁴ and Medicare data show that hospice saves \$8,700 per patient.⁵⁵

Oncologists can improve their performance with hospice length of stay by making it a quality assurance issue. Constructive feedback to oncologists that compares them with their peers and national averages for hospice length of stay led to a doubling of hospice length of stay within 1 year, from 19.7 days to 39.6 days.⁵⁶

DISCUSSION

Specialist-based PC—initiated soon after a cancer diagnosis—demonstrates improvements in quality of life, mood, symptoms, and, at times, survival. These data are strong for beginning such care as an outpatient, although the introduction of PC principles in the emergency department or as

an inpatient has demonstrated positive outcomes as well. An oncologist would not wait to use trastuzumab in patients with human epidermal growth factor receptor 2–positive breast cancer until the eighth randomized trial showed exactly which regimen was absolutely the best. Immediately after those landmark studies, we adopted the methods used in these clinical trials that demonstrated so much benefit and have been modifying our protocols as new data become available. It is time to do the same with concurrent PC.

It is critical to distinguish PC from hospice care, the most common subtype of PC familiar to most oncologists (Box 1). We are still surprised how frequently we hear, “Oh, she’s not ready for palliative care yet.” Hospice care is administered to those who have no curative options and who have less than 6 months to live, if the disease process runs its natural course, with proven benefits as described above. PC can and should be provided with concurrent cancer-directed treatment on the basis of need rather than prognosis. Despite the well-established benefits, only approximately one half of all patients who are dying of cancer are comanaged by hospice, and at least one third use hospice for less than 1 week, a marker of poor quality of care.

A compelling business case—outlined in the ASCO guidelines—can be made for the incorporation of PC to reduce costs by improving the quality of care that people receive near EOL to what they actually want, if those wishes are discerned. Every study, to date, has shown that inpatient PC consultations

BOX 1. Distinguishing Hospice From Palliative Care

Hospice Care

Hospice is a type and philosophy of care that focuses on the palliation of a terminally ill patient’s symptoms by providing care, not curing.

It is used when there are no longer curative options or reasonable options.

In the United States, hospice care is generally restricted to those who have less than 6 months to live, and must cover all expenses with per diem payment of about \$150.

Palliative Care

“Palliative care is specialized medical care for people with serious illness. This type of care is focused on providing patients with relief from the symptoms, pain, and stress of a serious illness—whatever the diagnosis. The goal is to improve quality of life for both the patient and the family.

Palliative care is provided by a team of palliative care doctors, nurses, and others who work together with a patient’s other doctors to provide an extra layer of support. It is appropriate at any age and at any stage in a serious illness, and can be provided together with curative treatment.”

– Diane Meier, MD, Director, Center to Advance Palliative Care⁵⁷

improve care and with equal or lower costs.⁵⁸⁻⁶¹ Such strategies will be essential to make room in the current system for ever-increasing care costs but that were never the intent of PC.

In summary, oncologists can and must learn to adopt the techniques used in the trials of specialty PC concurrent with usual oncology care, just as we learned to administer nivolumab when the clinical trial evidence was compelling. The TEAM approach is a good way for oncologists to start incorporating these techniques. **JOP**

Authors' Disclosures of Potential Conflicts of Interest

Disclosures provided by the authors are available with this article at jop.ascopubs.org.

Author Contributions

Conception and design: Betty Ferrell, Irene Higginson, Jennifer S. Temel, Camilla Zimmermann, Thomas J. Smith

Financial support: Thomas J. Smith

Administrative support: Thomas J. Smith

Provision of study materials or patients: Thomas J. Smith

Collection and assembly of data: All authors

Data analysis and interpretation: All authors

Manuscript writing: All authors

Final approval of manuscript: All authors

Accountable for all aspects of the work: All authors

Corresponding author: Thomas J. Smith, MD, Johns Hopkins Medical Institutions, The Johns Hopkins Hospital, 600 N Wolfe St, Blalock 369, Baltimore, MD 21287-0005; e-mail: tmsit136@jhmi.edu.

References

- Brumley R, Enguidanos S, Jamison P, et al: Increased satisfaction with care and lower costs: Results of a randomized trial of in-home palliative care. *J Am Geriatr Soc* 55:993-1000, 2007
- Gade G, Venohr I, Conner D, et al: Impact of an inpatient palliative care team: A randomized control trial. *J Palliat Med* 11:180-190, 2008
- Bakitas M, Lyons KD, Hegel MT, et al: Effects of a palliative care intervention on clinical outcomes in patients with advanced cancer: The Project ENABLE II randomized controlled trial. *JAMA* 302:741-749, 2009
- 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
- Greer JA, Tramontano AC, McMahon PM, et al: Cost analysis of a randomized trial of early palliative care in patients with metastatic non-small-cell lung cancer. *J Palliat Med* 19:842-848, 2016
- Farquhar MC, Prevost AT, McCrone P, et al: Is a specialist breathlessness service more effective and cost-effective for patients with advanced cancer and their carers than standard care? Findings of a mixed-method randomised controlled trial. *BMC Med* 12:194, 2014
- Zimmermann C, Swami N, Krzyzanowska M, et al: Early palliative care for patients with advanced cancer: A cluster-randomised controlled trial. *Lancet* 383:1721-1730, 2014
- McDonald J, Swami N, Hannon B, et al: Impact of early palliative care on caregivers of patients with advanced cancer: Cluster randomised trial. *Ann Oncol* 28:163-168, 2017
- Higginson IJ, Bausewein C, Reilly CC, et al: An integrated palliative and respiratory care service for patients with advanced disease and refractory breathlessness: A randomised controlled trial. *Lancet Respir Med* 2:979-987, 2014
- Bakitas MA, Tosteson TD, Li Z, et al: Early versus delayed initiation of concurrent palliative oncology care: Patient outcomes in the ENABLE III randomized controlled trial. *J Clin Oncol* 33:1438-1445, 2015
- Dionne-Odom JN, Azuero A, Lyons KD, et al: Benefits of early versus delayed palliative care to informal family caregivers of patients with advanced cancer: Outcomes from the ENABLE III randomized controlled trial. *J Clin Oncol* 33:1446-1452, 2015
- Ferrell B, Sun V, Hurria A, et al: Interdisciplinary palliative care for patients with lung cancer. *J Pain Symptom Manage* 50:758-767, 2015
- Sun V, Grant M, Koczywas M, et al: Effectiveness of an interdisciplinary palliative care intervention for family caregivers in lung cancer. *Cancer* 121:3737-3745, 2015
- Grudzen CR, Richardson LD, Johnson PN, et al: Emergency department-initiated palliative care in advanced cancer: A randomized clinical trial. *JAMA Oncol* [epub ahead of print on January 14, 2016] doi:10.1001/jamaoncol.2015.5252
- Temel JS, Greer JA, El-Jawahri A, et al: Effects of Early Integrated Palliative Care in Patients With Lung and GI Cancer: A Randomized Clinical Trial. *J Clin Oncol* 35:834-841, 2017
- El-Jawahri A, Jackson VA, Greer JA, et al: Effect of early integrated palliative care on family caregivers (FC) outcomes for patients with gastrointestinal and lung cancer. *J Clin Oncol* 34, 2016 (suppl 26S; abstr 234)
- El-Jawahri A, LeBlanc T, VanDusen H, et al: Effect of inpatient palliative care on quality of life 2 weeks after hematopoietic stem cell transplantation: A randomized clinical trial. *JAMA* 316:2094-2103, 2016
- VanDusen H, LeBlanc TW, Traeger L, et al: Inpatient integrated palliative and transplant care to improve family caregiver (FC) outcomes of patients hospitalized for hematopoietic stem cell transplantation (HCT). *J Clin Oncol* 34, 2016 (suppl 26S; abstr 235)
- Maltoni M, Scarpi E, Dall'Agata M, et al: Systematic versus on-demand early palliative care: Results from a multicentre, randomised clinical trial. *Eur J Cancer* 65:61-68, 2016
- Ferrell BR, Temel JS, Temin S, et al: Integration of palliative care into standard oncology care: American Society of Clinical Oncology clinical practice guideline update. *J Clin Oncol* 35:96-112, 2017
- Narang AK, Wright AA, Nicholas LH: Trends in advance care planning in patients with cancer: Results from a national longitudinal survey. *JAMA Oncol* 1:601-608, 2015
- Jacobsen J, Jackson V, Dahlin C, et al: Components of early outpatient palliative care consultation in patients with metastatic non-small cell lung cancer. *J Palliat Med* 14:459-464, 2011
- Jorgenson A, Sidebottom AC, Richards H, et al: A description of inpatient palliative care actions for patients with acute heart failure. *Am J Hosp Palliat Care* 33:863-870, 2016
- Weeks JC, Catalano PJ, Cronin A, et al: Patients' expectations about effects of chemotherapy for advanced cancer. *N Engl J Med* 367:1616-1625, 2012
- Chen AB, Cronin A, Weeks JC, et al: Expectations about the effectiveness of radiation therapy among patients with incurable lung cancer. *J Clin Oncol* 31:2730-2735, 2013
- Kim Y, Winner M, Page A, et al: Patient perceptions regarding the likelihood of cure after surgical resection of lung and colorectal cancer. *Cancer* 121:3564-3573, 2015
- Jackson VA, Jacobsen J, Greer JA, et al: The cultivation of prognostic awareness through the provision of early palliative care in the ambulatory setting: a communication guide. *J Palliat Med* 16:894-900, 2013
- Stein RA, Sharpe L, Bell ML, et al: Randomized controlled trial of a structured intervention to facilitate end-of-life decision making in patients with advanced cancer. *J Clin Oncol* 31:3403-3410, 2013
- Mack JW, Walling A, Dy S, et al: Patient beliefs that chemotherapy may be curative and care received at the end of life among patients with metastatic lung and colorectal cancer. *Cancer* 121:1891-1897, 2015
- Roeland E, Loprinzi C, Moynihan TJ, et al: In chemotherapy for lung cancer, sometimes less is more. *J Natl Compr Canc Netw* 11:232-235, 2013
- Kumar P, Temel JS: End-of-life care discussions in patients with advanced cancer. *J Clin Oncol* 31:3315-3319, 2013
- Enzinger AC, Zhang B, Schrag D, et al: Outcomes of prognostic disclosure: Associations with prognostic understanding, distress, and relationship with physician among patients with advanced cancer. *J Clin Oncol* 33:3809-3816, 2015

33. Leong M, Shah M, Smith TJ: How to avoid late chemotherapy. *J Oncol Pract* 12:1208-1210, 2016
34. Singh S, Cortez D, Maynard D, et al: Characterizing the nature of scan results discussions: Insights into why patients misunderstand their prognosis. *J Oncol Pract* 13:e231-e239, 2017
35. Chang VT, Hwang SS, Feuerman M: Validation of the Edmonton Symptom Assessment Scale. *Cancer* 88:2164-2171, 2000
36. Kirkova J, Davis MP, Walsh D, et al: Cancer symptom assessment instruments: A systematic review. *J Clin Oncol* 24:1459-1473, 2006
37. Balboni TA, Balboni M, Enzinger AC, et al: Provision of spiritual support to patients with advanced cancer by religious communities and associations with medical care at the end of life. *JAMA Intern Med* 173:1109-1117, 2013
38. Kuchinad KE, Strowd R, Evans A, et al: End of life care for glioblastoma patients at a large academic cancer center. *J Neurooncol* 134:75-81, 2017
39. Abernethy AP, Currow DC, Shelby-James T, et al: Delivery strategies to optimize resource utilization and performance status for patients with advanced life-limiting illness: Results from the "palliative care trial" [ISRCTN 81117481]. *J Pain Symptom Manage* 45:488-505, 2013
40. 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
41. Neubauer MA, Hoverman RA, Jameson M, et al: A disease management pilot program in a Medicare-age population with cancer. *J Clin Oncol* 34, 2016 (abstr 6505)
42. Neubauer MA, Taniguchi CB, Hoverman JR: Improving incidence of code status documentation through process and discipline. *J Oncol Pract* 11:e263-e266, 2015
43. O'Connor NR, Moyer ME, Behta M, et al: The impact of inpatient palliative care consultations on 30-day hospital readmissions. *J Palliat Med* 18:956-961, 2015
44. Tangeman JC, Rudra CB, Kerr CW, et al: A hospice-hospital partnership: Reducing hospitalization costs and 30-day readmissions among seriously ill adults. *J Palliat Med* 17:1005-1010, 2014
45. Hight B, Hsieh Y-H, Smith TJ: A pilot trial to increase hospice enrollment in an inner city, academic emergency department. *J Emerg Med* 51:106-113, 2016
46. Brody AA, Ciemins E, Newman J, et al: The effects of an inpatient palliative care team on discharge disposition. *J Palliat Med* 13:541-548, 2010
47. Morrison RS, Dietrich J, Ladwig S, et al: Palliative care consultation teams cut hospital costs for Medicaid beneficiaries. *Health Aff (Millwood)* 30:454-463, 2011
48. Enguidanos S, Vesper E, Lorenz K: 30-day readmissions among seriously ill older adults. *J Palliat Med* 15:1356-1361, 2012
49. Scheffey C, Kestenbaum MG, Wachterman MW, et al: Clinic-based outpatient palliative care before hospice is associated with longer hospice length of service. *J Pain Symptom Manage* 48:532-539, 2014
50. Scibetta C, Kerr K, Mcguire J, et al: The costs of waiting: Implications of the timing of palliative care consultation among a cohort of decedents at a comprehensive cancer center. *J Palliat Med* 19:69-75, 2016
51. Kelley AS, Deb P, Du Q, et al: Hospice enrollment saves money for Medicare and improves care quality across a number of different lengths-of-stay. *Health Aff (Millwood)* 32:552-561, 2013
52. Saito AM, Landrum MB, Neville BA, et al: Hospice care and survival among elderly patients with lung cancer. *J Palliat Med* 14:929-939, 2011
53. Connor SR, Pyenson B, Fitch K, et al: Comparing hospice and nonhospice patient survival among patients who die within a three-year window. *J Pain Symptom Manage* 33:238-246, 2007
54. Chiang JK, Kao YH, Lai NS: The impact of hospice care on survival and healthcare costs for patients with lung cancer: A national longitudinal population-based study in Taiwan. *PLoS One* 10:e0138773, 2015
55. Obermeyer Z, Makar M, Abujaber S, et al: Association between the Medicare hospice benefit and health care utilization and costs for patients with poor-prognosis cancer. *JAMA* 312:1888-1896, 2014
56. Von Gunten CF: A quality improvement approach to oncologist referrals for hospice care. *J Clin Oncol* 34, 2016 (suppl 26S; abstr 45)
57. Center to Advance Palliative Care: About palliative care. <https://www.capc.org/about/palliative-care/>
58. Hughes MT, Smith TJ: The growth of palliative care in the United States. *Annu Rev Public Health* 35:459-475, 2014
59. Morrison RS, Penrod JD, Cassel JB, et al: Cost savings associated with US hospital palliative care consultation programs. *Arch Intern Med* 168:1783-1790, 2008
60. May P, Garrido MM, Cassel JB, Kelley AS, Meier DE, Normand C, Smith TJ, Stefanis L, Morrison RS: Prospective cohort study of hospital palliative care teams for inpatients with advanced cancer: Earlier consultation is associated with larger cost-saving effect. *J Clin Oncol* 33:2745-2752, 2015
61. May P, Garrido MM, Cassel JB, et al: Palliative care teams' cost-saving effect is larger for cancer patients with higher numbers of comorbidities. *Health Aff (Millwood)* 35:44-53, 2016

AUTHORS' DISCLOSURES OF POTENTIAL CONFLICTS OF INTEREST**The TEAM Approach to Improving Oncology Outcomes by Incorporating Palliative Care in Practice**

The following represents disclosure information provided by authors of this manuscript. All relationships are considered compensated. Relationships are self-held unless noted. I = Immediate Family Member, Inst = My Institution. Relationships may not relate to the subject matter of this manuscript. For more information about ASCO's conflict of interest policy, please refer to www.asco.org/rwc or ascopubs.org/journal/jop/site/misc/ifc.xhtml.

Marie A. Bakitas

No relationship to disclose

Areej El-Jawahri

No relationship to disclose

Morag Farquhar

Travel, Accommodations, Expenses: SK Nurses

Betty Ferrell

No relationship to disclose

Corita Grudzen

No relationship to disclose

Irene Higginson

No relationship to disclose

Jennifer S. Temel

Research Funding: Pfizer (Inst)

Camilla Zimmermann

No relationship to disclose

Thomas J. Smith

Employment: UpToDate

Travel, Accommodations, Expenses: GEOMC