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Perceptions of Palliative Care Among Hematologic Malignancy Specialists: A Mixed-Methods Study

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Abstract

Purpose: Patients with hematologic malignancies are less likely to receive specialist palliative care services than patients with solid tumors. Reasons for this difference are poorly understood.

Methods: This was a multisite, mixed-methods study to understand and contrast perceptions of palliative care among hematologic and solid tumor oncologists using surveys assessing referral practices and in-depth semistructured interviews exploring views of palliative care. We compared referral patterns using standard statistical methods. We analyzed qualitative interview data using constant comparative methods to explore reasons for observed differences.

Results: Among 66 interviewees, 23 oncologists cared exclusively for patients with hematologic malignancies; 43 treated only patients with solid tumors. Seven (30%) of 23 hematologic oncologists reported never referring to palliative care; all solid tumor oncologists had previously referred. In qualitative analyses, most hematologic oncologists viewed palliative care as end-of-life care, whereas most solid tumor oncologists viewed palliative care as a subspecialty that could assist with complex patient cases. Solid tumor oncologists emphasized practical barriers to palliative care referral, such as appointment availability and reimbursement issues. Hematologic oncologists emphasized philosophic concerns about palliative care referrals, including different treatment goals, responsiveness to chemotherapy, and preference for controlling even palliative aspects of patient care.

Conclusion: Most hematologic oncologists view palliative care as end-of-life care, whereas solid tumor oncologists more often view palliative care as a subspecialty for comanaging patients with complex cases. Efforts to integrate palliative care into hematologic malignancy practices will require solutions that address unique barriers to palliative care referral experienced by hematologic malignancy specialists.

Introduction

In recent years, provision of palliative care concurrently with standard oncology care has emerged as a recommended practice. The American Society of Clinical Oncology, for example, released a provisional clinical opinion in 2012 recommending concurrent palliative care from the time of diagnosis for all patients with metastatic cancer and/or high symptom burden.[1] Similarly, the American College of Surgeons Commission on Cancer has made access to specialist palliative care services a required component of its accreditation process for comprehensive cancer centers.[2] These guidelines are supported by research demonstrating benefits of palliative care for patients, families, and the health care system,[3,4] including improved quality of life,[5,6] better symptom management,[7] improved coping,[8] better prognostic awareness,[9,10] enhanced ability to meet patient preferences for place of death,[11] reduced costs,[12,13] fewer hospital readmissions,[14] and even improved survival.[5]

Despite growing evidence of the role of palliative care in improving quality of care and decreasing costs in other oncology settings, its role in hematologic malignancies is not well established. Patients with hematologic malignancies have significant palliative care needs, including high symptom burden[15-17]; however, they remain less likely than patients with solid tumors to receive specialist palliative care services and more likely to receive aggressive health care at the end of life.[18] Specifically, patients with blood cancers are less frequent users of hospice services,[19] less likely to be seen by consultative palliative care services in the hospital,[20] more likely to die in a hospital or intensive care unit,[21-23] and more likely to receive chemotherapy in the last few weeks of life.[24] These findings point toward unmet palliative care needs in the hematologic malignancy population.[25]

Amid growing awareness of these differences, infrequent use of specialist palliative care by patients with hematologic malignancies remains poorly understood. Prior research suggests that oncologists' attitudes toward palliative care play an important role in referrals.[26,27] To date, however, there has been no examination of whether these attitudes differ among oncologists who specialize in hematologic malignancies and among those who specialize in solid tumors. We hypothesized that hematologic oncologists hold views of palliative care distinct from those of solid tumor oncologists. We therefore conducted this analysis to explore differences in referral practices and views of palliative care among hematologic oncologists and solid tumor oncologists practicing at academic cancer centers with well-established palliative care programs.

Methods

Study Design, Setting, and Participants

We conducted a multisite, mixed-methods study to understand oncologist factors that influence referrals to outpatient palliative care services.[28] No prior analysis to our knowledge has examined differences in referral practices or views among hematologic malignancy and solid tumor specialists.

Oncologists at three academic cancer centers in the United States with well-established palliative care programs completed surveys and in-depth interviews (Mount Sinai Icahn School of Medicine, University of California San Francisco [UCSF], and University of Pittsburgh Medical Center [UPMC]). Two of the three sites are National Cancer Institute–designated comprehensive cancer centers (UCSF, UPMC); the third site is a major metropolitan comprehensive cancer center that does not carry National Cancer Institute designation (Mount Sinai). Palliative care clinics at participating sites were established between 2002 and 2005 and provided services between 2 and 9 half-days per week. Eligible participants were fellowship-trained oncologists who practiced at least 1 half-day per week in an outpatient clinic at one of the study sites.

Enrollment and Data Collection

A random-order list of oncologists practicing at each site was used to identify potential participants. The local investigator initiated contact by e-mail, and the study coordinator followed-up by e-mail and telephone to schedule an interview. All data were collected between February and October 2012. The institutional review board at each site approved the study protocol, and all participants provided verbal informed consent.

Each participant completed a survey and a semistructured, in-depth interview (complete interview guide included in Data Supplement). Surveys assessed palliative care referral practices and attitudes toward palliative care, as well as standard sociodemographic data. Questions about palliative care attitudes were adapted from a prior survey designed to assess physicians' attitudes toward end-of-life care.[29]

In-depth interviews were conducted either in person (UPMC) or by telephone (UCSF, Mount Sinai) by a single interviewer with a master's degree in public health and several years of qualitative research experience across multiple studies (G.A.T.). The semistructured interview guide included questions about clinical scenarios in which palliative care referral would be appropriate, as well as queries about prior experiences with palliative care and probes to assess views of palliative care and barriers to referral (Data Supplement provides complete interview guide). Interviews lasted 20 minutes on average (range, 8 to 44 minutes).

Quantitative Analysis

We used basic descriptive statistics to summarize survey data and standard statistical methods to compare responses between hematologic and solid tumor oncologists (specifically, two-tailed t tests for continuous variables and two-tailed Fisher's exact tests for categorical or frequency count variables).

Qualitative Analysis

All interviews were audio recorded, transcribed verbatim, and imported into NVivo 10 software (http://www.qsrinternational.com/products_nvivo.aspx) to facilitate qualitative analysis. Using a constant comparative approach, three investigators (T.W.L., J.D.O., Y.S.) reviewed a subset of transcripts and inductively developed a codebook characterizing beliefs about palliative care and barriers to referral. Two investigators (T.W.L., J.D.O.) then applied this codebook to all transcripts, using recursive cycles of coding, comparison, and codebook refinement to adjudicate disagreements. A number was used to identify transcripts; thus, investigators were blinded as to whether each transcript was from a solid tumor or hematologic malignancy oncologist and to each clinician's academic affiliation. Thereafter, investigators were unblinded to facilitate the identification of different themes by oncologist group. To promote rigor and validity, an interdisciplinary team of investigators provided input throughout the process, and specific attention was paid to areas of disagreement.

Results

We initially contacted 95 oncologists for participation. Among these, 16 did not respond, and five did not meet eligibility criteria (one treated only benign hematology patients, two were soon leaving their institutions, one did not have an outpatient clinic, and one did not actively treat patients with cancer). Seventy-four oncologists completed the study, for a response rate of 82%. For this analysis, we excluded eight oncologists who treated both hematologic and solid tumor malignancies, because our aim was to understand different viewpoints among oncologists who specialize only in the care of patients with either blood cancers or solid tumors.

Baseline characteristics of the 66 participants are listed in Table 1. Twenty-three participants (35%) were hematologic oncologists, and 43 (65%) were solid tumor oncologists. Participants practiced across all three sites (UPMC had five hematologic oncologists and 15 solid tumor oncologists, UCSF had seven hematologic oncologists and 17 solid tumor oncologists, and Mount Sinai had 11 hematologic oncologists and 11 solid tumor oncologists). The mean age of hematologic oncologists was 50 years (standard deviation [SD], 11) versus 45 years (SD, 8) among solid tumor oncologists ($P = .04$). Sixteen (70%) of 23 hematologic oncologists were men, compared with 28 (65%) of 43 solid tumor oncologists ($P = .79$). Hematologic oncologists had been in practice an average of 19 years (SD, 11) at the start of the study, compared with 15 years (SD, 9) among solid tumor oncologists ($P = .12$). Both hematologic and solid tumor oncologists practiced an average of 4 half-days per week in clinic ($P = 1.0$). Some of the hematologic oncologists also performed stem-cell transplantation.

Table 1. Demographic Characteristics of Participating Hematologic Malignancy and Solid Tumor Oncologists

	Hematologic Malignancy Oncologists (n = 23)		Solid Tumor Oncologists (n = 43)		
Characteristic	**No.**	**%**	**No.**	**%**	***P***
Age, years					**.04**
Mean	50		45		
SD	11		8		
Male sex	16	70	28	65	.79
Race					
White	18	78	32	74	1.0
Asian	2	9	9	21	.3
Other	3	13	2	4	.33
Hispanic/Latino ethnicity	2	9	0	0	.12
Years practicing oncology					.12
Mean	19		15		
SD	11		9		
Half-days per week in clinic					1.0
Mean	4		4		
SD	3		2		

NOTE. Bold font indicates significance.
Abbreviation: SD, standard deviation.

Survey Responses

Palliative care referral practices and attitudes toward palliative care by oncologist type are summarized in Table 2. Although all solid tumor oncologists had previously referred a patient with advanced cancer to palliative care, 30% (n = 7) of hematologic oncologists had never done so ($P < .001$). Similarly, 43% (n = 10) of hematologic oncologists had never referred a patient with cancer without advanced disease to palliative care, compared with 12% (n = 5) of solid tumor oncologists ($P = .005$). Solid tumor oncologists were more likely than hematologic oncologists to refer patients to palliative care for assistance with pain management (n = 34 [79%] *v* n = 11 [48%]; $P < .001$). More solid tumor oncologists felt that palliative care services led to improved symptom management, beyond what was provided by standard oncology care (n = 25 [60%] *v* n = 8 [35%]); this difference did not reach statistical significance ($P = .07$).

Qualitative Results

Different conceptions of palliative care. Hematologic and solid tumor specialists expressed different views about palliative care (Table 3). Hematologic oncologists more frequently viewed palliative care as end-of-life care and as antithetical to cancer care. Solid tumor oncologists more often described palliative care as a useful source of expertise and comanagement in difficult patient cases.

Fourteen (61%) of 23 hematologic oncologists described palliative care as end-of-life care, compared with six (16%) of 43 solid tumor oncologists ($P < .001$). Hematologic oncologists spoke of palliative care as an alternative to cancer-directed therapy or something that became appropriate when there were no remaining therapeutic options. As one hematologic oncologist said, “When you talk about palliative care, [you’re] really gonna stop any treatments.” There was little discussion by hematologic malignancy specialists of palliative care as something that could be provided along with cancer-directed therapy; it was widely viewed as an either/or proposition.

Solid tumor oncologists, in contrast, held views more consistent with guidelines recommending concurrent palliative care for patients with advanced cancer. They spoke of palliative care as a medical subspecialty, a helpful source of expertise in difficult patient cases, and a partner in the comanagement of patients with cancer. As one solid tumor oncologist said, “I had very positive experiences comanaging patients with [palliative care].... I think that the important thing for patients to understand is that it’s not a substitution for cancer care, it’s really an adjunct and a value-added piece.” Solid tumor oncologists sometimes described palliative care as helping to expand their reach when there were too many issues to address in a busy clinic. As another solid tumor oncologist said, “I have a really busy, very, very busy clinical practice and I recognize that I can make best use of my time by separating out and having more complex patients with more difficult symptoms be managed [by palliative care].”

Different barriers to using palliative care. Different types of oncologists described different types of barriers to using palliative care (Table 4). Solid tumor oncologists emphasized more practical barriers to palliative care referral, whereas hematologic oncologists expressed more distrust of palliative care along with more of a desire to maintain control and avoid bringing in consultants. Hematologic oncologists also referenced issues related to treatment goals or disease characteristics that they viewed as incompatible with palliative care.

Solid tumor specialists spoke most frequently about practical barriers that prevented them from making more referrals to palliative care. They often lamented difficulties with appointment availability, lack of physical proximity of palliative care clinics, and issues related to insurance copayments or reimbursement. They also referenced the relative ease of involving palliative care on an inpatient basis and expressed the desire that outpatient clinics be similarly accessible. Hematologic oncologists mentioned practical barriers infrequently, although they also had less experience referring patients to palliative care.

Hematologic oncologists emphasized cancer-related treatment goals as a barrier to palliative care referral. This perceived barrier was often related to a view of palliative care as end-of-life care or a view of ongoing treatment as a contraindication to palliative care involvement.

Hematologic oncologists more frequently expressed a desire to maintain control over their patients’ care and a distrust of others’ involvement. They expressed a preference to provide their own palliative care, which they largely viewed as end-of-life care. More hematologic oncologists expressed skepticism

Table 2. Palliative Care Referral Practices and Attitudes by Oncologist Type

	Hematologic Malignancy Oncologists (n = 23)		**Solid Tumor Oncologists (n = 43)**		
Question	**No.**	**%**	**No.**	**%**	***P****
I have never referred patient with advanced cancer to palliative care	7	30	0	0	**< .001**
Patients with advanced cancer referred, %					
< 10	7	30	11	25.5	
11-20	5	22	15	35	
21-50	2	9	11	25.5	
51-100	2	9	6	14	
I have never referred patient without advanced cancer to palliative care	10	43	5	12	**.005**
Patients without advanced cancer referred, %					
< 10	11	48	28	65	
11-20	0	0	6	14	
21-50	2	9	4	9	
51-100	0	0	0	0	
Primary reason for referral					**< .001**
Pain symptoms	11	48	34	79	
Psychosocial support	2	9	6	14	
Nonpain symptoms	0	0	2	5	
Family support	2	9	1	2	
Goals of care discussion	1	4	0	0	
Most patients' symptoms are not controlled any better with outpatient palliative care services than with care I provide					.07†
Agree	8	35	8	19	
Neutral	7	30	9	21	
Disagree	8	35	25	60	
Outpatient palliative care services generally meet needs of families better than standard oncology care alone					1.0
Agree	15	65	27	66	
Neutral	5	22	10	24	
Disagree	3	13	4	10	
Interdisciplinary team approach can interfere with patient care					.61
Agree	2	8.5	2	5	
Neutral	2	8.5	4	9.5	
Disagree	19	83	36	85.5	
I often disagree with recommendations made by palliative care clinic					1.0
Agree	1	5	1	2.5	
Neutral	4	18	1	2.5	
Disagree	17	77	40	95	
I am well trained to take care of symptoms of patients with advanced cancer					.41
Agree	22	96	37	88	
Neutral	1	4	1	2	
Disagree	0	0	4	10	
I am well trained to discuss goals of care with patients with advanced cancer					1.0
Agree	23	100	41	98	
Neutral	0	0	0	0	0
Disagree	0	0	1	2	

NOTE. Bold font indicates significance.

* Two-tailed Fisher's exact test.

† Statistical test was for disagree versus other categories listed, because question was phrased negatively.

Table 3. Predominant Views of Palliative Care by Oncologist Type

Oncologist Type	Comment
Hematologic malignancy	
Palliative care is end-of-life care	"When you talk about palliative care, [you're] really gonna stop any treatments."
Palliative care is solely end-of-life care	"Well, I generally don't refer very many people to palliative care, at least not early on, because I think for many patients that's a signal that they're not going to do well. And so I tend to wait until there's . . . you know, until there's some indication—both medically as well as from the patient—that they're willing to accept the fact that their course may not be ideal."
Either/or: palliative versus cancer care	"How I usually come to the decision of a palliative care referral is: it can either be for patients for whom active oncologic treatment isn't really indicated anymore, either because they've sort of failed all available treatments or they're becoming progressively more symptomatic and their performance status is declining and/or they just don't wish to pursue treatment." "The patient has the right to hear that option when the probability of survival is low, when there's nothing else that they could be offered, that they are imminently dying, they should have the option of having a palliative care consult."
Solid tumor	
Specialist palliative care	"When you're referring for symptoms, it's usually pretty easy, actually. I'll say, 'You know, there's a service here: they're internists who specialize in dealing with symptoms associated with cancer. I feel like we could use their help in taking better care of you.'"
Palliative care includes symptom management specialty expertise	"I had very positive experiences co-managing patients with them. . .. I think that the important thing for patients to understand is that it's not a substitution for cancer care, it's really an adjunct and a value-added piece to cancer care."
Palliative care can be offered concurrently with cancer care (concept of comanagement)	"I think a lot of patients associate that with terminal disease, so I try to minimize that association for them. . .. I tell them it's really about symptom management; it doesn't really have to do with the disease course."

that palliative care could provide value beyond the care they already delivered. Some hematologic oncologists cited prior negative experiences as further evidence that palliative care was not appropriate for their patients. These concerns, often related to mixed messages about resuscitation status or misunderstandings of prognosis or the treatability of a condition, furthered a desire to maintain control over all aspects of patient care thereafter.

Hematologic oncologists commonly noted that caring for patients with blood cancers was different from caring for patients with solid tumors. These differences, such as the availability of many effective treatment regimens even in incurable settings, were often raised as an explanation for why palliative care did not apply to their patients or might be more appropriately handled by the primary oncologist. Most references to blood cancers as "just being different" connected these differences with conceptions of palliative care as either terminal care or hospice.

Discussion

In our multisite study, we found that hematologic oncologists were less likely than solid tumor oncologists to have referred a patient with advanced cancer to palliative care. In-depth interviews revealed differences in palliative care perceptions and barriers to explain these results. Hematologic oncologists more frequently viewed palliative care as end-of-life care, whereas solid tumor oncologists more frequently viewed it as a medical subspecialty that could provide concurrent comanagement for patients with cancer. Hematologic oncologists described different barriers to palliative care compared with solid tumor oncologists, focusing more on issues related to treatment goals, control, trust, and disease characteristics, whereas solid tumor oncologists emphasized more practical barriers.

One explanation for our findings is that the perception of palliative care as terminal care—rather than as a specialty comanagement or expert consultative service—arises from the limited experience of hematologic oncologists in comanaging patients with palliative care physicians. A decade ago, when palliative care clinics were only starting to be established, most oncologists probably held views similar to the hematologic oncologists in our study. It was only in the late 1990s that palliative care started being discussed as something different from terminal care or hospice care.[30] Before that, oncologists were used to providing palliative care across the illness spectrum. Reflective of this, in a large survey study conducted in 2003, 88.4% of medical oncologist respondents felt that they should be the ones to provide palliative care to their patients.[31] Evolving views among solid tumor oncologists seen in our study may be the result of increasing experience with outpatient palliative care services, in light of recent recommendations for more standard concurrent palliative care for patients with advanced incurable cancers.[1] As hematologic oncologists gain exposure to palliative care by accessing it more frequently over time, we might expect their perceptions to evolve similarly.

However, exposure to palliative care may develop more slowly among hematologic oncologists, because blood cancers are different from many solid tumors; they often remain meaningfully responsive to chemotherapy near the end of life. These diseases are also often still theoretically curable, even in statistically poor-prognosis settings; this is far from true for solid tumors with similar prognoses, such as metastatic pancreatic cancer. Anecdotally, these differences may lead hematologic oncologists to pursue cancer-directed therapy, often at all costs, in pursuit of cure. If hematologic oncologists view palliative care as end-of-life care, they will not recognize its potential utility until there are no remaining therapeutic options, which may be quite late in a patient's life. Disease-related differences

Table 4. Barriers to Palliative Care by Oncologist Type

Oncologist Type	Comment
Hematologic malignancy	
Treatment goal	"If she's responding to treatment and she wants to be aggressive to treatment; if she's totally asymptomatic and doing well and stable, I would not refer her."
Treatment goals as barrier (eg, preference for clinical trials instead, need for transfusions, expected benefit from ongoing treatment)	"If she said, 'I want to do everything I can, give me the medicine. I don't care, I'm tough, I can take it.' Then, I would be less likely to refer her." "So, we would have all the options available and sometimes there is a new drug in clinical trial at another institution. . .. So we have been referring two to three patients per month to other clinics from our center because we felt like that treatment option . . . the patient should have an opportunity to try that. And not be sitting and discussing palliative care with me."
Control/distrust	"Well, that's kind of what we do. This is the bread and butter for what oncology does. We try to actually treat their symptoms and take 'em though death and dying, the process of death and dying. And I think the services that we are able to provide are pretty good."
Distrust of others and their oncologic knowledge	"I rarely find a situation where I think an outside person can be useful—except sometimes in helping to control chronic, severe pain—which patients with hematological malignancies, fortunately, rarely have in the terminal part of their illness. . .. I guess I have the sense that that's part of my job."
Preference to maintain control/not wanting to bring in another party	"I think the bias and the reluctance is sometimes that the team comes and kind of takes over and writes orders without really acting as a consultant, but really as . . . you know, kind of . . . as I said, kind of takes over. And I don't think a lot of referring physicians really like that."
History of conflict or prior negative experiences with palliative care	"At the beginning when palliative care was started and everything, we had some issues about palliative care physicians coming to . . . just to go ahead and discuss DNR without, you know . . . approaching us in that regard."
It's just different	"Well, in hematologic malignancies—which is what I specialize in—and it's very different from solid oncology. Patients will respond to a lot of available treatments. And so, they can continue to have a good quality of life while getting chemotherapy, even though they may not be curative candidates. And so we treat them based on understanding . . . based on their wishes or . . . until we know that there's nothing else that we can give them. And usually at that point, we decide that this is the end of the road. The problem is, at that point, they usually are very sick. So, a lot of the times, it's a matter of days before the patient will expire. So, if they don't . . . and they don't necessarily want any involvement by palliative care services. If we think that they have more than a day or two, then we can do that."
Hematologic oncologists deal with unique set of disease characteristics that make palliative care either more difficult to apply or seemingly inappropriate	"And so, it . . . I think in the past, when I've been interviewed on this topic, or talked to people about this topic, palliative care in general, the problem is . . . there's some overlap, but the problems by and large are a little different for hematological malignancy and bone marrow transplant patients than they are for solid tumor patients. And that . . . their terminal care is often different than for solid tumor patients." "As you can tell, I'm very . . . this is a point of major contention for me. I really find it very difficult, because our patients are all heme malignancy patients and I think we shouldn't have to choose between transfusing or hospice."
Solid tumor	
Practical barriers	"I guess, like I said, the biggest thing we'd like to see is more time; that they're available. . .. I don't think there's quite enough people, personnel or slots."
Practical issues as barriers (palliative care clinic accessibility and capacity, reimbursement, insurance, awareness of services)	"Also, the patients I have referred to symptom management service, they're . . . they've not been that helpful. They don't give timely appointments. They give an appointment like maybe six weeks, which is useless. . .. In an emergency situation, we cannot reach them or they are unavailable, they don't have appointments, and it's not been a user-friendly situation." "They also don't accept any outpatient insurance. So we order a lot of inpatient palliative care consults because that's where most of the investment has been made in palliative care, but there are very few outpatient visits because there's no availability in the outpatient setting."

Abbreviation: DNR, do not resuscitate.

may thus be a major factor limiting referral to palliative care services among hematologic oncologists. Recent evidence suggests that hematologic oncologists struggle to identify the end-of-life phase in many blood cancers, further supporting our hypothesis.[32,33]

Another key consideration is that hematologic oncologists may have different relationships with consultants than solid tumor oncologists, because they tend to be the lone physicians caring for their patients (with the exception of those working in more team-oriented stem-cell transplantation settings). This is in contrast to many solid tumors—such as, breast, lung, and rectal cancers—where the care team often includes a surgeon, radiation oncologist, and medical oncologist, and physicians may be more accustomed to a comanagement model. Multidisciplinary clinics are less prevalent in hematologic oncology, because chemotherapy is the mainstay of treatment for most of these diseases. Hematologic oncologists are used to taking care of most or all of their patients' needs, and they may be less comfortable with consultants—such as palliative care clinicians—comanaging their patients. For example, several hematologic oncologists in our study commented specifically on instances when palliative care specialists had compromised a patient's care by providing inaccurate information about prognosis or expected treatment efficacy or by recommending a change in resuscitation status.

Amid the growing literature showing that patients with blood cancers have inadequate access to palliative care services,[19,23,34-36] our findings have three important implications. First, targeted education about a more inclusive role for palliative care in hematologic oncology is needed. Specifically, blood cancer specialists should be made aware of the availability of specialist palliative care services that can be provided alongside cancer-directed therapy and of the many benefits in symptoms and quality of life that have been demonstrated in patients with other cancer types. Such efforts may prove fruitful in realizing more meaningful integration of palliative care into the management of patients with blood cancers, by influencing hematologic oncologists' perspectives on the timing and utility of specialist palliative care services. If the more limited perception of palliative care as terminal care is not challenged and expanded, other efforts at upstream integration of these services for patients with blood cancer will likely be more difficult, if not destined to fail. Second, given the slower uptake of specialist palliative care in hematologic malignancies, a formal recommendation from hematology leaders for further study of palliative care involvement in this population is warranted. Data highlighting the efficacy of concurrent care models may be required to foster more active collaboration. Third, unique care models are needed for integrating palliative care into hematologic oncology, because the blood cancer population is unique. Emerging models for comanagement in the stem-cell transplantation setting are beginning to hint at the potential success of such approaches, which deserve further targeted study.[18,37-39] It is also worth mentioning that palliative care specialists may receive little or no training in the unique issues faced by patients with hematologic malignancies; targeted training in this realm may also be needed. A more mutual understanding among hematologic oncologists and palliative care clinicians is likely necessary to foster trust and referrals.

There are a few limitations inherent in this study. First, the mean age of hematologic oncologists was 5 years older than that of solid tumor oncologists. Physicians who have more recently completed fellowship training may be more familiar with and open to palliative care, which may have led to some bias in our results. The difference in perceptions of palliative care, however, was so pronounced between groups of oncologists that this age difference alone is unlikely to account for our findings. Other unmeasured physician variables could also have affected these results, such as differences in research backgrounds, the ages of patients treated, or whether stem-cell transplantation was performed. Second, this study involved only three sites, and all were academic settings. Views about the role of palliative care in oncology may vary depending on the local culture and environment, and oncologists practicing at sites with newer palliative care programs may experience different barriers to palliative care use, although if anything we would expect these to be more pronounced than the barriers we observed. Lastly, our quantitative analysis was limited by our sample size and the smaller number of hematologic oncologists in the study.

In conclusion, in this multisite study of academic oncologists practicing at centers with established palliative care programs, we found striking differences in referral practices, perceptions, and attitudes regarding palliative care between hematologic oncologists and solid tumor oncologists. Hematologic oncologists commonly viewed palliative care as end-of-life care, and this view, along with unique considerations related to the diseases they treat, may affect their use of palliative care services. Efforts to promote more expanded conceptions of palliative care among hematologic oncologists could change practice and reduce barriers to upstream palliative care involvement in the care of patients with blood cancer. Further study of the palliative care needs of patients with blood cancer is needed. This will inform the development and evaluation of new models of multidisciplinary care for this population.

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Authors' Disclosures of Potential Conflicts of Interest

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

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AUTHORS' DISCLOSURES OF POTENTIAL CONFLICTS OF INTEREST

Perceptions of Palliative Care Among Hematologic Malignancy Specialists: A Mixed-Methods Study

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