#### Letters

# Physician-Reported Practice of the Use of Methylphenidate in Japanese Palliative Care Units

To the Editor:

Methylphenidate is a central nervous system stimulant that has traditionally been used to manage depression, opioid-induced sedation,<sup>2</sup> fatigue,<sup>3</sup> hypoactive delirium due to multiorgan failure,4 and cognitive disorder associated with brain tumors<sup>5</sup> in cancer patients. Although several empirical studies of these symptoms have demonstrated the treatment effects of methylphenidate, a recent randomized controlled trial reported that methylphenidate was not significantly superior to a nonpharmacological, nursing-based intervention.<sup>6</sup> The effectiveness of methylphenidate for other symptoms has not been adequately

Before the intervention trial, we performed a nationwide survey to clarify physicianreported practices in the use of methylphenidate in Japanese palliative care units. A questionnaire was mailed to 163 representative physicians at all certified palliative care units in November 2006.

A total of 112 physicians returned the questionnaire (response rate = 69%). Methylphenidate was used in 91 institutions (81%). The percentages of patients who received methylphenidate ranged from 1% to 50% (median = 5%) and was less than 5% in 28 institutions (31%), 5%-9% in 28 institutions (31%), 10%-19% in 20 institutions (22%), and greater than 20% in 15 institutions (16%). The median initial and maintenance doses of methylphenidate were 10 mg/day (range, 5-30 mg) and 20 mg/day (range, 5-60 mg), respectively.

The participants were requested to report whether they regarded the following symptoms as appropriate indications for the administration of methylphenidate on a four-point, Likert-type scale from 1 (not an indication) to 4 (strong indication): depression, opioidinduced sedation, fatigue, and cognitive disorder associated with brain tumors, with an estimated prognosis of several days, weeks, or months; and hypoactive delirium due to multiorgan failure, with an estimated prognosis of several days or weeks. Table 1 summarizes the physician-reported appropriateness of the indication for the administration of methylphenidate. Of the respondents, 90% and 77% regarded opioid-induced sedation with a predicted survival of several months and several weeks as an indication and strong indication, respectively. On the other hand, most respondents regarded cognitive disorder associated with brain tumors and hypoactive delirium as not an indication or as exceptional indications, regardless of the length of predicted survival. In addition, most respondents consistently viewed all of these symptoms as not an indication, or as exceptional indications, if patients have a predicted survival of several days. The responses varied considerably regarding the appropriateness of administration for depression and fatigue with a predicted survival of several months or weeks.

To our knowledge, this is the first study to clarify physician-reported practices in the use of methylphenidate in Japan. This study revealed that methylphenidate is used in many palliative care units in Japan, although its use is relatively low. The dose did not vary among institutions. A common indication for methylphenidate was opioid-induced sedation when patients have a predicted survival of more than several weeks. On the other hand, considerable variation was identified in depression

Table 1
Physician-Reported Appropriateness of Indications for Methylphenidate

	11 1		
	Not or Exceptional Indication	Indication	Strong Indication
Depression			
Predicted survival of several days	$97\% \ (n=88)$	3.3% (n=3)	0%
Predicted survival of several weeks	$52\% \ (n=47)$	$40\% \ (n=36)$	8.8% (n=8)
Predicted survival of several months	$44\% \ (n=40)$	$43\% \ (n=39)$	$13\% \ (n=12)$
Opioid-induced sedation			
Predicted survival of several days	$95\% \ (n=86)$	$5.5\% \ (n=5)$	. 0%
Predicted survival of several weeks	23% (n=21)	$62\% \ (n=56)$	$15\% \ (n=14)$
Predicted survival of several months	9.9% (n=9)	49% (n=45)	$41\% \ (n=37)$
Fatigue			4
Predicted survival of several days	$98\% \ (n=89)$	1.1% (n=1)	1.1% (n=1)
Predicted survival of several weeks	$62\% \ (n=56)$	$32\% \ (n=29)$	$6.6\% \ (n=6)$
Predicted survival of several months	52% (n=47)	$37\% \ (n=34)$	$11\% \ (n=10)$
Hypoactive delirium due to multiorgan failure			
Predicted survival of several days	$100\% \ (n=91)$	0%	0%
Predicted survival of several weeks	91% $(n=83)$	8.8% (n=8)	0%
Cognitive disorder associated with brain tumors			•
Predicted survival of several days	$100\% \ (n=91)$	0%	0%
Predicted survival of several weeks	$97\% \ (n=88)$	$3.3\% \ (n=3)$	0%
Predicted survival of several months	$96\% \ (n=87)$	$4.4\% \ (n=4)$	0%

and fatigue with a predicted survival more than several weeks. More evidence-based discussion about the indications for these symptoms, especially depression and fatigue, is needed.

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## An Unusual Cause of Movement Disorder in a Young Man with Penile Carcinoma

To the Editor:

Cytochrome P450 is a large family of related isoenzymes found in highest concentration in the human liver. Only a handful of these isoenzymes are responsible for the metabolism of commonly used drugs. One such isoenzyme is CYP2D6, which is possessed by the majority of adults. However, a proportion of individuals (2%-10% depending on ethnicity) are deficient in CYP2D6 and consequently has the

# Palliative Care Philosophies of Japanese Certified Palliative Care Units: A Nationwide Survey

To the Editor:

The numbers of patients and families who want admission to palliative care units (PCUs) continue to increase, and it is predicted that consumers will demand more detailed information related to PCUs.1 Consumers seeking PCUs are likely to initially familiarize themselves with the information provided in pamphlets. These resources are of great importance, as they describe not only the unique palliative care services offered by facilities, but also their philosophies and mission statements in palliative care. We identified a need to survey the contents of the pamphlets produced by PCUs in Japan, especially regarding the palliative care philosophies of these facilities. To the best of our knowledge, only one previous study has evaluated the information provided in hospice pamphlets. In this previous study, no detailed description was given of the precise content of the hospice pamphlets surveyed.

In Japan, Morita et al.<sup>2</sup> reported that family misconceptions about PCUs can cause late referrals to palliative care services. Moreover, in a recent Japanese nationwide study, Shiozaki et al.3 revealed that a lack of accurate information about PCUs can lead to dissatisfaction among bereaved relatives. Pamphlets produced by PCUs could potentially correct such misconceptions and promote a greater acceptance of palliative care among patients and their families during the early stages of illness. Analyzing the contents of pamphlets produced by Japanese certified PCUs also could shed light on current palliative care philosophies, resources, and staffing. This could help facilities to improve their communication with the public, thereby benefiting patients and their families.

The aim of the present study was to clarify the content of pamphlets produced by Japanese certified PCUs, especially in terms of their palliative care philosophies. Our survey encompassed the 105 certified members of Hospice Palliative Care Japan (formerly the Japanese Association of Hospice and Palliative Care Units). These facilities were contacted by letter, requesting their participation in the survey and asking them to submit the original pamphlets given to patients. The letters of request were sent out in August, 2002, and 90 facilities (86%) responded by October, 2002. Relevant information provided on web sites was also investigated, where appropriate. We excluded information provided for general introduction purposes by hospitals (i.e., not specifically PCUs) from the analysis.

The data were evaluated using content analyses. Two investigators, both retired, experienced hospice nurses, rated each pamphlet, with supervision from a palliative care physician (TM). Based on independent analyses of the initial 20 pamphlets by the two investigators, and with reference to the definitions provided by the World Health Organization (WHO),4 the National Hospice and Palliative Care Organization,<sup>5</sup> the care standard of Hospice Palliative Care Japan,<sup>6</sup> and "good death" studies from the USA and Japan, 7-9 the team categorized the content into eight themes, divided into 77 categories. The two investigators then independently coded the remaining 70 pamphlets into these categories. Finally, the two investigators jointly reviewed and discussed each coded data set, again under the supervision of an experienced palliative care specialist (TM), until all discrepancies were resolved. The percentage occurrence of each category was calculated.

The investigators classified the content of the pamphlets into eight themes and 77 categories as follows: Classification of the Institutions (four categories), Philosophy, Medical/Nursing Service Available, Staffing, Environment, Admission Criteria, Financial Information (payment), and Other. Table 1 lists the categories and themes, and shows the prevalence of 73 of the categories (excluding those within the theme of Classification of the Institutions).

The facilities were classified into four groups: PCU (61%), Hospice (25%), Vihara (1%), and Other (13%). The word "Vihara" means "The place of recreation" or "Monastery" in Sanskrit, and is used in Japan to describe facilities that offer end-of-life care based on the principles of Buddhism. The Other group included facilities that were best described using a mixture of the terms (for example, Hospice/PCU or Vihara/PCU).

Table 1
Contents and Prevalence of Categories

	P	revalen	ce
Theme	Category	(%)	n
Philosophy	Palliate physical distress	- 97	87
y	Treating the patient as	84	76
	a whole/unique person		
	Palliate psychological distress	84	76
	Family care	73	66
	Strengthening relationships	- 52	47
	Sharing decision making	49	44
	Maintaining meaning	47	42
	Affirming life <sup>a</sup>	36	32
	Calmness and peace	34	31
	Maintaining dignity	27	24
	Palliate social distress	21	19
	Enhancing quality of life	20	18
	Holistic approach	19	17
	Not prolonging life	14	13
	Spiritual care	12	13
	Death as a natural process	8	7
	Completion	7	6
	Bereavement care	3	3
	Not hastening death	2	2
	Preparation	2	2
	Not being burden to others	0	(
	Contributing to others	0	(
	Keeping active	. 0	(
	Early intervention	0	(
Medical / nursing	Interdisciplinary team approach	76	68
service	Outpatient clinic	68	6
available	Home-care service	47	42
	Continued care <sup>b</sup>	44	4
	Recreational events	41	3
	Flexible scheduling	40	36
	Commitment to patient care, expressed as "all over	38	34
	creation," "efforts," "exertions," and "from the		
	heart"	0.0	
	Day-pass (temporary	26	23
	absences from the PCU)	00	-
	Collaboration with the	22	20
	patients	1.4	
	No anti-cancer treatment	14 13	13
	Appropriate medical	13	1.
	treatment can be provided	12	1
	Warm attitude of the medical staff, such as "Warm," "Family-like," or	12	1.
	"Friendly"		
	Avoiding physical distress	11	10
	due to procedures		_
	Not cure-oriented	11	10
	Complementary and alternative medicine	4	•
taffing	Dietitian	51	4
	Volunteer	49	4
	Physical therapist/	29	2
	occupational therapist	-	
	Psychosocial support	23	2
	specialist		
	Pastoral care	22	2
	Consultation with other	4	
	specialists available		

(Continued)

		Prevalenc	e
Theme	Category	(%)	n
Environment	Information on equipment	98	88
	Contact address	98	88
	Photograph of the hospital ward	84	76
	Photograph of the hospital room	80	72
	Garden/patio	57	51
	Relaxing/calm	48	43
	Photograph of patients' daily lives	46	<b>4</b> 1
	Home-like environment	34	31
Admission	Diagnosis	81	73
criteria	Incurable stage	67	60
*	Disclosure of diagnosis	34	31
	Requests by patients and/or their families	32	29
	Patient's awareness of their condition	17	15
	Non-denominational	13	12
	Non-discriminatory over financial status	4	4
	Patients without family allowed	2	2
	Prognosis	1	1
Financial	National insurance applied	84	76
information (payment)		71	64
Other	Information regarding admission	86	77
	Passage from the Bible	8	7
	History	8	7
	Information regarding medication	4	4
	General description of hospice	4	4
	Quotation	4	4
	Request for cooperation with education or research	i 1	1

Table 1
Continued

"Affirming life means living one's life fully until the end, and valuing life.

Continued care means reassurance that inpatients and outpa-

Continued care means reassurance that inpatients and outpatients receive the same level of care.

Flexible scheduling includes 24-hour visitation, and unrestricted waking and sleeping hours.

The Philosophy theme referred to the core palliative care concept of each PCU. This encompassed a variety of issues, ranging from the mission statements of the facilities to their more general definition of palliative care. More than 80% of the pamphlets surveyed referred to "palliate physical symptoms," "treating the patient as a whole/unique person," and "palliate psychological symptoms."

The theme of Medical/Nursing Service Available referred to information on the medical and nursing services that were available to patients. In the current study, 76% of the institutions referred to an "interdisciplinary team approach," and 68% of the institutions stated that an outpatient service, such as outpatient clinics and day-care services, was available. Appropriate medical treatment mentioned that blood transfusion, hydration, and intravenous hyperalimentation were available. The other themes are shown in Table 1.

Our survey revealed significant variability in the contents of pamphlets produced by Japanese certified PCUs. In general, these resources contained both medical/nursing services and information on the palliative care philosophies of the facilities. The latter ranged so widely, from mission statements to general definitions of palliative care, that we divided the theme of Philosophy into 24 separate categories. It might be essential for all palliative care facilities to clearly state their philosophy or mission in their promotional literature.

We compared the philosophies of the facilities in this study with the palliative care definitions given by the WHO,<sup>4</sup> the National Hospice and Palliative Care Organization,<sup>5</sup> Hospice Palliative Care Japan,<sup>6</sup> and in "good death" studies from the USA<sup>7–9</sup> and Japan. "Palliate physical symptoms" was included in the definitions from all of these sources. On the other hand, of the categories in the current study, "holistic approach" was not mentioned by any of these four sources.

The pamphlets excluded the terms "helping patients actively" and "early intervention." In the theme of Admission Criteria, most of the pamphlets emphasized "incurable" as an admission criteria to PCUs, not the intensity of patient and family suffering. These findings suggest that PCUs in Japan place more emphasis on end-of-life care than palliative care, compared with the WHO definition.4 This is, at least partially, because the Japanese Ministry of Health, Labor and Welfare defines PCU cancer patients as individuals who are incurable terminally-ill patients. The term PCU is, therefore, used in Japan to describe institutions that accept only terminally-ill patients. This narrow interpretation has been identified as the major barrier to adequate palliative care and appropriate referrals to specialized palliative care services. 2,10 In the future, in order to more closely follow the WHO definition in Japan and provide appropriate palliative care for all

patients,<sup>4</sup> it should be recognized that the term palliative care implies active intervention during the whole course of illness.

Considering the definitions given in the "good death" studies, 7-9 neither "contributing to others" nor "not being a burden to others" were included among the categories in the present study. This was attributed to the fact that "good death" studies were developed relatively recently in the USA, and might not have been widely recognized by Japanese palliative care specialists at the time of the survey. As terminally ill patients and their families seek not only symptom palliation but also comprehensive support to achieve a "good death," it is essential that PCUs clearly communicate their philosophies other than symptom control and mission statements in their promotional literature.

Both the WHO and Hospice Palliative Care Japan emphasized an interdisciplinary team approach to improving the QOL of patients and their families. In the previous study, the majority of hospices (96%) were found to refer to an "interdisciplinary approach." Although this category was mentioned by 76% of the institutions in the current study, only half of them actually provided details of the team and the number of the engaged disciplines. Maeyama et al.11 revealed that the attendance at team meetings of professionals other than physicians and nurses was less than 40% in Japanese PCUs. It is, therefore, important that all facilities detail the specific services available for patients and their families, and clearly report the availability of support from an interdisciplinary team.

This small survey revealed significant variation in the palliative care philosophies described in the pamphlets produced by Japanese certified PCUs, and that most had a general focus on symptom control and endof-life care. It is hoped that detailed discussions of the philosophies of palliative care will lead to more comprehensive services, incorporating various aspects raised by "Good death" studies and the early and active detection of patients requiring palliative care.

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# Life review interviews on the spiritual well-being of terminally ill cancer patients

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Abstract Goals: The aims of this study were (1) to evaluate the treatment efficacy of life review interviews on the spiritual well-being of terminally ill cancer patients, and (2) to explore any differences in the responses of patients who obtained clinical benefits and those who did not. Materials and methods: Structured life review interviews were conducted with 12 patients in a palliative care unit in Japan. They completed the SELT-M (Skalen zur Erfassung von Lebens qualitat bei Tumorkranken-Modified Version) questionnaire before and after the interviews. The patients were classified into two groups: effective (patients who showed an increase in the SELT-M scores after the intervention) and noneffective groups. Meaningful spoken sentences from the patients' life reviews were transcribed and correspondence analysis was conducted on the sentences using text mining software. Results: The mean overall QOL score and spirituality subscale score of the SELT-M significantly increased after the life reviews from 2.57±0.61 to 3.58±1.0 (P=0.013) and 2.57±0.61 to 3.14± 2.25 (P=0.023), respectively. Three

dimensions were extracted from the effective group based on the scores "Positive view of life," "Pleasure in daily activities and good human relationships," and "Balanced evaluation of life." Similarly, three dimensions were extracted from the noneffective group: "Worries about future caused by disease," "Conflicts in family relationship problems," and "Confrontation of practical problems." Conclusion: Life review interviews may be effective in improving the spiritual well-being of terminally ill cancer patients. The potential predictors of treatment success are "positive view of life," "pleasure in daily activities and good human relationships," and a "balanced evaluation of life," while those of treatment failure are "worries about future caused by disease," "conflicts in family relationships," and "confrontation of practical problems." Further intervention trials on patients with predictors of treatment success are promising.

**Keywords** Psychotherapy · Life review · Terminally patients · Text mining · Spiritual well-being

#### Introduction

Reminiscence is an interpersonal or communicative psychosocial process that can be carried out individually or in groups [10]. Butler [4] reported that the life review process

is a means of reintegration and can lend new significance and meaning to an individual's life. It is defined as "the progressive return to consciousness of prior experiences which can be re-evaluated with the intention of resolving and integrating past conflicts, thus giving new significance to one's life" [3]. A life review interview, hereafter called life review, is a type of reminiscence therapy [4]. It includes various activities of reminiscence, evaluation, and reconstruction of one's life [8]. Reminiscence itself is an activity of life review or reminiscence therapy. The popular life review method [8] consists of six 1-h visits to each client. In this study, we used the Life Review and Experiencing Form [9] as a guide, and the interviewers were instructed to discuss all phases of life in chronological order.

With regard to the elderly, positive effects of life review interviews were shown for depression [11, 12, 15, 17] and self-esteem [10, 12]. To conduct life review interviews more effectively, Haight [8] demonstrated optimal conditions for the interview. For example, life reviews are most effective when performed on a one-to-one basis with a therapeutic listener; life reviews can be initiated freely as health maintenance measures; negative memories are more important than positive ones in achieving integration and a successful life review. Furthermore, on the basis of data collected from hundreds of elderly patients, Wong and Watt [24] found that successful patients—who were operationally defined by ratings in mental health, physical health, and adjustment-showed significantly more integration (achieved a sense of self-worth or reconciliation with regard to their lives) and instrumental reminiscence (used life reviews as problem-focused coping strategies), and less obsessive reminiscence (stated guilt, bitterness, and despair over their past) than unsuccessful patients.

There are relatively few studies concerning life review interviews for cancer patients. Wholihan [23] provided guidelines on how to facilitate the process of reminiscence, and Pickrel [21] provided instructions regarding life reviews for terminally ill patients. Ando et al. [2] demonstrated the types of reminiscence on the basis of Wong and Watt's findings [24] and on the effects of life reviews on depression and self-esteem for chronic cancer patients [1]. However, there is little research on the efficacy of life review interviews or about their success or failure for terminally ill cancer patients. To use life review interviews effectively, we had to know the efficacy of this type of therapy and how to determine whether a life review was successful or unsuccessful.

Thus, the aims of this study were (1) to evaluate the treatment efficacy of life review interviews on the spiritual well-being of terminally ill cancer patients and (2) to explore any differences in the responses of patients who obtained clinical benefits and those who did not.

#### **Materials and methods**

This preliminary study is a pre-post intervention study with no control groups.

Subjects

The subjects were patients with incurable cancer receiving specialized care in the palliative care unit of a general hospital in Japan.

The inclusion criteria for this study were (1) the patient had incurable cancer, (2) the patient had no cognitive impairment, (3) the patient was 20 years of age or older, and (4) the primary physicians were in agreement that the patient would benefit from the psychological interventions. During the 6-month study periods, a total of 21 patients were recruited from the primary physicians; however, nine patients were later excluded from this study for the following reasons: (1) the patient's health unexpectedly deteriorated (n=7), and (2) the interviewer evaluated that the patients were inappropriate candidates for life review interviews due to the Obsessive and Compressive reminiscence type [24] (n=1) and serious depression (n=1). Thus, 12 patients (two males, ten females) finally participated in the study. The patients' ages ranged from 54 to 82, with a mean of 63. The primary tumor sites were breast (n=3), liver (n=2), colon (n=2), lung (n=2), thyroid (n=1), stomach (n=1), and gallbladder (n=1).

#### Interventions and outcome measurements

The interviewer was a clinical psychologist. The interview procedure entailed a constructive life review interview [8] in which patients reviewed their own childhood, adolescence, adult life, and current situation. Some of the questions asked were (1) Please tell me about your childhood, (2) What do you remember to be the most impressive events in your childhood and (3) How do you feel now when you review those impressive events? Four sessions were planned for each patient. Interviews were conducted in the dayroom or at the bedside. The patient reviews were recorded in the form of notes taken during or immediately after the session.

We defined the primary outcomes of this study as the Overall QOL and spirituality subscale scores, because one of the most serious problems for terminally ill cancer patients in Japan is psycho-existential (spiritual) suffering [19]. To evaluate the spiritual well-being, we used the SELT-M (Skalen zur Erfassung von Lebens qualitat bei Tumorkranken-Modified Version) [22], because at the time of this investigation, no other validated measurement tools to assess spiritual well-being were available in Japan. The patients completed the Japanese version of the SETL-M [13] before and after the intervention. The reliability and validity of the Japanese version of the SELT-M has been reported. The SELT-M consisted of six subscales, namely, physical well-being (three items), mood (six items), support (three items), orientation (three items, e.g., "Today, I see many things in a more positive light"), spirituality (three items, e.g., "It is difficult for me to see

positive meaning in my illness"), and Overall QOL (one item). We used the overall QOL score and spirituality subscale score in the post-interview results. Each subscale ranged from 1 to 5, with a higher score indicating a higher level of patient-perceived QOL.

The institutional review board of this hospital approved this study from both ethical and scientific aspects, and a patient gave written consent.

#### Statistical analysis

To evaluate the treatment efficacy of life review interviews on the patient's spiritual well-being, a Wilcoxon sign rank test was conducted on the sections of the SELT-M before and after the life review interviews. To explore the predictors of treatment success, we classified the patients into two groups: effective (patients who showed an increase in their overall QOL score of the SELT-M after the intervention) and noneffective (the others). We then examined the responses given during the life review sessions for the two groups using text mining computer software (Word Miner version 1.0, Japan Electronic Company) [14].

Text mining is used to extract specific information from a large amount of text data. For example, when a company requires information on their customers' opinions, questions such as "what are the major concerns?" or "who wants what?" are asked in a questionnaire. The responses are collected in the form of sentences, which are used as the raw data for text mining. Text mining involves three processes: feature extract (word segmentation, categorization, or other functions to enter into the next process), the mining process (clustering or association by cluster analysis or correspondence analysis), and visualization (graphs or tables). Morohoshi et al. [20] demonstrated the efficacy of text mining by learning the customers' intentions from a number of customer opinions. We used text mining to obtain the factors that determine whether a life review is successful or unsuccessful from the responses in life reviews.

In the first process of text mining, characteristic extraction was performed, i.e., the words in each sentence were separated. Words that had the same meaning were counted as the same word; for example, both "mom" and "mother" were counted as "mother." Moreover, articles or punctuation marks were deleted, leaving only meaningful

words. These words are called "fragments." There were 97 fragments for the effective group and 79 for the noneffective group. In the second process, namely, the mining process, a correspondence analysis was conducted on the fragments. In the third process, the results were presented in the form of tables and graphs. Dimensions, referring to hidden factors, were extracted automatically by the software. The number of dimensions depended on whether the eigenvalue scores were more than 1.0. For each dimension, important weighted fragments were represented in the tables and graphs. In a dimension, fragments were ordered from plus direction to minus direction. The software Word Miner listed the most meaningful five fragments both from plus and minus direction to decide the dimension names. These weighted fragments were also presented in the dimensional graph; the dimensions were named according to the fragments.

#### Results

The effects of life reviews

As shown in Table 1, overall QOL and spirituality subscale scores, in addition to mood and orientation subscale scores, significantly increased after the intervention.

Dimensions of contents by correspondence analysis

Three dimensions were extracted by correspondence analysis according to the criterion that the eigenvalue score was greater than 1.0. Table 2 shows the five most effective fragments and the weighted scores for each dimension from the plus direction and the minus direction. Some fragments appeared more than once because these fragments were distributed near more than one axis. Dimension 1 was called "Positive view of life." It included statements such as "Putting affairs in order" or "I find beauty of the outdoors" for the plus direction, and "I can walk by myself" or "Pleasantness" for the minus direction. Dimension 2 was termed "Pleasure in daily activities and good human relationships." It included "Pets" or "Likes" for the plus direction, and "I have good human relationships" or "Relatives" for the minus direction. Dimension 3 was termed "Balanced evaluation of life." It included "I had a good time" or "Destiny" for the plus direction, and

Table 1 Mean scores and P value by the Wilcoxon sign rank test on scores of SELT-M

	SELT-M					
	Physical well-being	Mood	Support	Orientation	Spirituality	Over-all QOL
Before	2.33 (SD=0.79)	3.16 (SD=0.65)	3.28 (SD=0.65)	2.93 (SD=0.75)	2.57 (SD=0.61)	2.57 (SD=0.61)
After	2.80 (SD=1.16)	3.79 (SD=0.74)	3.61 (SD=0.83)	3.65 (SD=1.03)	3.14 (SD=2.25)	3.58 (SD=1.0)
P value	Z=-1.02, P=0.307	Z=-2.67, P=0.008	Z=-1.18, P=0.237	Z=-2.05, P=0.041	Z=-2.23, P=0.023	Z=-2.49, P=0.01

Table 2 Scores of fragments which are affective in each dimension for both effective and noneffective Group

Effective group						Noneffective group					
Dimension 1: positive view of life	e Ve	Dimension 2: pleasure in daily activities and good human relationships	ure in good	Dimension 2: pleasure in Dimension 3: balanced daily activities and good evaluation of life human relationships	pac	Dimension 1: worries about future caused by disease	about se	Dimension 2: conflicts in family relationship problems	SIII	Dimension 3: confrontation of practical problems	jo uoi
Fragments	Scores	Scores Fragments	Scores	Scores Fragments	Scores	Scores Fragments	Scores	Scores Fragments	Scores	Scores Fragments	Scores
Cancer	1.38 Pet	Pet	1.97	1.97 I had a good time	1.88	Cancer	1	Problems with mother	2.32	Problems of mother	1.88
Putting affairs in order	1.38	1.38 Likes	1.97	I can't die	1.88	I want to live longer	_	Past conflicts	2.32	Past conflicts	1.88
I don't want to die 1.38 I can walk by right now myself	1.38	I can walk by myself	1.97	I want to enjoy hobby	1.88	What I was shocked	1	I am at a loss	2.32	2.32 I am at a loss	1.88
I find beauty of the 1.38 Pleasantness outdoors	1.38	Pleasantness	1.41	Destiny	1.88	I am unsatisfied with life		Troubles	1.27	1.27 Troubles	1.88
I want to be away 1.38 I worry about my overnight family	1.38	I worry about my family	1.22	Doctor always helps me	1.88	I want to leave something	1	Younger days	1.27	1.27 Younger days	1.88
Husband	-1.1	-1.1 Relatives	-1.07	-1.07 Relatives	-0.8	Everyone passes the road to death	-1.1	Everyone passes the road to death	-0.83	-0.83 I don't want to give anyone trouble	-1.58
Pleasantness	-1.2	-1.2 Person	-1.07	-1.07 Person	8.0-	Children	-1.2	Children	-0.83	-0.83 Today	-1.58
Pet	-1.43	-1.43 I have good human relations	-1.07	-1.07 I have good human relations	-0.8	I have relied on my family	-1.43	I have relied on my family	-0.83	-0.83 Long time ago	-1.58
Likes	-1.43	-1.43 Old friend	-1.07	Old friend	<del>0</del> .8	I am calm	-1.43	I am calm	-0.83	-0.83 Bad physical condition	-1.58
I can walk by myself	-1.43	-1.43 Contact	-1.07	Contact	8.0	Parents	-1.43	Parents	-0.83	Married pair	-1.58

"Contact" or "Old friend" for the minus direction. These dimensions are illustrated in Fig. 1.

As regards the noneffective group, we termed dimension 1 "Worries about future caused by disease" because this dimension included "I am unsatisfied with life" or "I want to leave something" for the plus direction and "Children" or "Everyone passes the road to death" for the minus direction. Dimension 2 was termed "Conflicts in family relationship problems." It included "Problems with mother" or "Past conflicts" for the plus direction and "Parents" or "I have relied on my family" for the minus direction. Dimension 3 was called "Confrontation of practical problems." It included "I am at a loss" or "Troubles" for the plus direction, and "Bad physical condition" or "I don't want to give anyone trouble" for the minus direction.

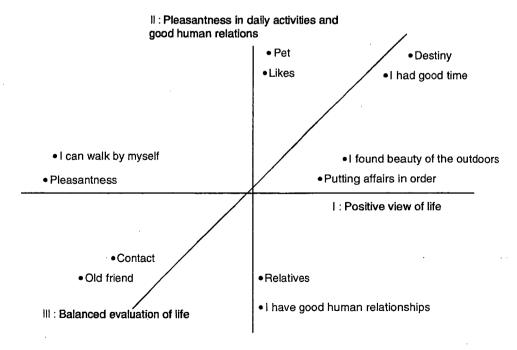
#### **Discussion**

One of the important findings of this study is the significant increase in the SELT-M scores, as well as the spirituality, orientation, and mood subscales, after the life review interviews. The significant increase in the Mood subscale suggests, in accordance with previous studies for elders [10–12], the efficacy of life review interviews to improve the psychological well-being of terminally ill cancer patients. More importantly, as the spirituality and orientation subscale quantify the levels of the patients' meaningfulness and positive outlook, the patients may have found a meaning to life and had more positive thoughts. This result supports the promising results of Chochinov's

study [5], in which reminiscence was useful for patients to find a meaning in their lives.

The second important finding of this study is the identification of the predictors of treatment success and failure of the life review interviews. We extracted three dimensions from the responses of the life reviews of the patients with improved spiritual well-being: "Positive view of life," "Pleasure in daily activities and good human relationships," and "Balanced evaluation of life." "Positive view of life" may relate to a fighting spirit or an active stress-coping style, which may work against psychological suffering [6, 18]. The way of thinking of some of the patients changed from negative to positive after the life review. "Pleasure in daily activities" is an important factor in cognitive behavior therapy. Patients can forget the suffering caused by disease and can live their time well during pleasant activities. Greer and Moorey [7] showed the importance of leisure because patients tend to enhance daily life activities that are not impeded by the disease. Moreover, "Good human relationships" is considered a fundamentally important factor because patients who have good human relationships do not feel lonely and can act as support systems for others. Patients may have a sense of continuity among generations. Most of the patients in this group talked about their children or grandchildren in a pleasant way, which may imply a sense of continuity, suggesting that generativity is an important concept in psychotherapy for terminally ill cancer patients [5]. "Balanced evaluation" is also considered an important factor when life review interviews function therapeutically [8]. If a patient is able to integrate bad memories with good ones and evaluate their lives in a balanced way, the life

Fig. 1 Three dimensions and typical fragments in the effective group



review is considered effective. The importance of the factor "Balanced evaluation" is in accordance with the results demonstrating that life reviews are successful when the type of reminiscence is "integrative" or "instrumental" [24].

On the other hand, we extracted three dimensions from the responses of patients whose scores did not improve through these reviews. These dimensions included "Worries about future caused by disease," "Conflicts in family relationships," and "Confrontation of practical problems." "Worries about future caused by disease" is often observed in terminally ill patients. When patients worry about the future well-being of their parents or children, it is difficult for life reviews to treat these anxieties. Life reviews were also not effective for patients who have experienced practical family problems or conflicts, eliciting questions such as "Why was I brought up by relatives?" and "Should I meet my real mother again, from whom I parted in my younger days?" Life reviews are also not effective for patients who confront problems such as their past human relationships, family grave legacies, or poor physical condition. The influence of the factor "Poor physical condition" is also reported in [16]. Other kinds of care, such as music therapy [19], should be considered for patients for whom the life review interview did not prove effective.

This study is a preliminary one and has several limitations. First, due to the lack of control groups and because all patients received specialized inpatient palliative

care, we cannot conclude that the life review interviews alone resulted in favorable changes in the spiritual well-being of the patients. Intensive symptom control and nonspecific support by palliative care nurses and physicians may have also contributed to the improvements. Second, the small number of patients and single institution study limits the generalization of this study. Third, a shorter intervention protocol for life review interview is necessary in future trials, because there were many patients whose sessions were discontinued.

In conclusion, life review interviews may be effective in improving the spiritual well-being of terminally ill cancer patients. Life reviews may also be effective for patients who have a positive view of life, take pleasure in their daily activities, have good human relationships, and have a balanced evaluation of life. However, they are not very effective for patients who have worries about the future caused by disease, are plagued by past conflicts, or are confronting practical problems. Interviewers help patients to (1) review both good and bad memories and reevaluate these memories, (2) pay attention to, not only the negative aspects but also, the positive aspects of their life, (3) refind hobbies or interests in the reminiscence that relate with their comfort, and (4) remember good relationships with others or form new relationships. Further intervention trials on patients with predictors of treatment success and a shortinterval intervention protocol are promising.

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# Barriers to Providing Palliative Care and Priorities for Future Actions to Advance Palliative Care in Japan: A Nationwide Expert Opinion Survey

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#### **ABSTRACT**

Objectives: Palliative care specialists are faced with extensive barriers to providing effective palliative care. We carried out a survey to identify existing barriers from the point of view of palliative care experts in Japan and determine the priorities for future actions to overcome these barriers.

Methods: We conducted a cross-sectional mail survey in December 2004. We sent out 2607 questionnaires to members of the Japanese Society of Palliative Medicine and Hospice Palliative Care Japan. We asked all respondents two open-ended questions regarding barriers and future actions in the context of palliative care in Japan. In total, 426 questionnaires were returned (response rate of 16%).

Results: We identified 95 different answers concerning barriers to providing effective palliative care. The three most frequent answers were "general medical practitioners' lack of interest, knowledge, and skills" (n = 203), "general population's lack of knowledge and misunderstandings about palliative care" (n = 122), and "general medical practitioners' failure to provide information and lack of communication skills" (n = 89). We identified 136 different answers concerning future actions required to improve palliative care. The three most frequent answers were "organize study sessions on palliative care or case conferences in hospitals" (n = 122), "provide information about palliative care to the general population" (n = 120) 117), and "in undergraduate education, make palliative care a compulsory course" (n = 88).

Conclusions: We identified numerous barriers to providing effective palliative care, related to not only medical practitioners, but also economic factors and the general population. These

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findings suggest that to overcome these barriers, we need to take action on many fronts, including increasing social awareness and effecting political change, as well as addressing problems relating to practitioners. We prioritized the future actions. The most frequent urgent problems were identified. We hope that collaborative efforts by the relevant organizations will improve palliative care in Japan.

#### INTRODUCTION

PALLIATIVE CARE SPECIALSITS are faced with extensive barriers to providing effective palliative care. 1-3 Much research has been carried out with regard to the barriers, such as ability to manage pain,<sup>4–8</sup> communication and breaking bad news,<sup>9,10</sup> legal problems,<sup>11</sup> and the knowledge of physicians,<sup>12–15</sup> nurses,<sup>16</sup> patients,<sup>17–22</sup> and the general population.23 In addition, barriers to hospice referral by physicians have also been investigated. 24-27 Although many barriers to providing effective care exist in Japan, comprehensive research into these barriers has not conducted. To construct an effective national palliative care system, it is important to identify the remaining barriers. In identifying any barriers, the opinions of palliative care experts are important because these professionals attempt to provide effective palliative care in their day-to-day clinical practice, and would be able to identify many barriers based on their clinical experience.

After the barriers are identified, strategies are needed to overcome them.<sup>28</sup> Nursing associations in the United States and Korea have advocated that priority is given to nursing research in palliative care. 29,30 To overcome any barriers, it is necessary not only to address the problems in each facility and for each medical practitioner, but also to discuss common problems in national organizations related to palliative care, and to develop consistent strategies. However, no systematic research has been carried out regarding the priorities for future actions in Japan. Thus, we considered that it would be worthwhile to survey the ideas and actual practices of palliative care professionals in order to overcome any barriers and to develop priorities for future actions to improve the quality of palliative care in Japan.

The aims of this survey were: (1) to identify existing barriers to providing effective palliative care from the point of view of palliative care experts in Japan; (2) to determine priorities for future actions to overcome these barriers; and (3) to develop a list of future actions underpinned by detailed practical suggestions.

#### **METHODS**

Procedure and respondents

We conducted a cross-sectional mail survey in December 2004. We sent a questionnaire to all members of the Japanese Society of Palliative Medicine and Hospice Palliative Care Japan.

Survey

All respondents were asked two questions regarding barriers to providing effective palliative care and future actions needed to advance palliative care in Japan. The first question was, "What do you think are the barriers to providing palliative care?" The second question was, "What future actions are needed to overcome these barriers?" These two questions were open-ended, but we gave several sample answers because we wanted to gather ideas and suggestions that were as practical and concrete as possible.

In addition, we asked about respondents' occupations (e.g., physician, nurse, etc.), the type of facility that the respondents worked in (e.g., general hospital, university hospital, cancer center, etc.), their working situation within the facility (e.g., general ward, palliative care unit, etc.), and their number of years of clinical experience.

#### Analysis

All responses were transferred to a personal computer, and content analysis was performed on the descriptive data. Two nursing researchers (M.M. and M.S.) extracted all statements related to barriers and future actions, then they carefully conceptualized and categorized the answers given based on similarities and differences in the content under the supervision of an experienced palliative care physician (T.M.), and created definitions for all categorized answers. Finally, two oncology nurse coders independently determined whether each respondent had made remarks that belonged to any of the defined answers. When there were discrepancies in the categorizations of the two coders, they made a fi-

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nal judgment together after discussion. The concordance rate and  $\kappa$  coefficient for the determination of the categories by the two independent coders were 96% and 0.45, respectively. Furthermore, the defined answers generated were further categorized on the basis of the similarities between them and theoretical explanations, with the full agreement of all authors. Finally, we developed a "list of problems for the nationwide dissemination of high-quality palliative care" with practical and detailed information as provided by the respondents.

#### RESULTS :

#### Respondent characteristics

We sent 2469 questionnaires to members of the Japanese Society of Palliative Medicine and 138 questionnaires to members of Hospice Palliative Care Japan. A total of 426 questionnaires were returned (response rate of 16%). The respondents'

characteristics are shown in Table 1. Sixty percent were physicians, and 23% were nurses. Fifty-seven percent worked in a general hospital, and 21% worked in a university hospital. Forty-eight percent worked in a general ward, 23% worked in a palliative care unit, and 16% worked in a palliative care team. With respect to the number of years of clinical experience, the greatest number of respondents fell into the 15–19 years category (23%).

#### Barriers to palliative care

We identified 95 different answers concerning barriers to providing palliative care, which were classified into 8 categories. The categories were: symptom palliation and caring for the patient/family (13 defined answers), general medical practitioners (12), palliative care specialists and the system (20), home care and district health services (13), social factors (8), economics (9), education and research (7), and other (13).

TABLE 1. CHARACTERISTICS OF THE RESPONDENTS

Total	n 426	% 100
	120	
Occupation (multiple-choice)		
Physician	257	60
Nurse	100	23
Pharmacist	34	8
MSW/psychotherapist	11	. 3
Physiotherapist/occupational therapisst	4	1
Other	15	4
Type of facility (multiple-choice)		
General hospital	243	5 <i>7</i>
University hospital	88	21
Cancer center	38	. 9
Clinic	27	6
Visiting nursing station	8	2
Other	19	4
Working situation in the family (multiple-choice)		,
General ward	203	48
Palliative care unit	98	23
Palliative care team	70	16
Home care	34	8
Other	50	12
Clinical experience, years		
0-4	33	8
5–9	62	15
10–14	61	14
15–19	97	23
20–24	69	16
25–39	46	11
30-	31	7

MSW, medical social worker.

Data do not add up to 100% because of multiple answers or missing values.

Answers that were given by more than 20 respondents are listed in Table 2. The five most frequent were: "general medical practitioners' lack of interest, knowledge, and skills" (n = 203), "general population's lack of knowledge and misunderstandings about palliative care" (n = 122), "general medical practitioners' failure to provide information and lack of communication skills" (n = 89), "insufficient postgraduate education" (n = 67), and "insufficiency or absence of palliative care specialists or insufficient skill level" (n = 59).

The answer concerning "general medical practitioners' lack of interest, knowledge, and skills"

relates to the following views: that physicians are not interested in palliative care or in patients who have incurable disease, and are only interested in curative treatment; that physicians are under the misapprehension that they have sufficient skill to deal with patients' symptoms, therefore, they do not tend to refer patients to palliative care specialists; the lack of recognition that some physicians and nurses have knowledge regarding pain and symptom management; that some medical practitioners misconceive palliative care as doing nothing or being a particular branch of medicine. The answer concerning "the general population's lack of knowledge and misunderstandings about

TABLE 2. BARRIERS TO PROVIDING EFFECTIVE PALLIATIVE CARE

		n
1 Sym	ptom palliation and caring for the patient and their family	
1. 5ym	No prevailing method for pain control	35
1-8	Difficulty of symptom palliation (other than pain and psychological symptoms)	28
1-2	Lack of drugs for pain control, drugs not covered by patient's insurance scheme, drugs	27
	too expensive	•
2. Gen	eral medical practitioners	
2-1	General medical practitioners' lack of interest, knowledge, and skills	203
2-3	General medical practitioners' failure to provide information and lack of communication skills	89
2-6	General medical practitioners too busy	38
2-2	General medical practitioners unwilling to shift the patient to palliative care	36
2-4	Lack of support system for psychological symptoms (e.g., lack of psychiatrist)	20
2-8	Hospital administrators unwilling to accommodate palliative care	20
3. Palli	ative care specialists and systems	
3-2	Insufficiency or absence of palliative care specialists or insufficient skill level	59
3-4	Lack of PCÚ, inadequate accessibility, inadequate facilities	53
3-20	Lack of evidence-based approach to palliative care, immaturity as a discipline	33
3-13	Bad image of and misconceptions about PCUs by the general population, patients, and their	29
	families	
3-7	Differences in the quality or characteristics of different PCUs	26
3-3	Lack of partnership between palliative care specialists and clinical oncologists, other	23
	disciplines, and a multidisciplinary approach	
	ne care and district health service	2.0
4-11	Insufficient cooperation among hospitals and clinics	36
4-1	Lack of overall home care system	30
4-3	General practitioners' lack of interest in, reluctance of caring dying patient, and lack of	27
	skill with terminal stage cancer patients	
	al factors	100
5-6	Lack of knowledge and misconceptions about palliative care among the general population	122
5-1	Unreality of death among the general population (medicalized death), lack of death-	33
	related education	20
5-5	Belief of the patient (e.g., patients hope to fight against cancer as long as possible)	20
6. Ecor		29
6-2	PPS system of PCUs, shortage of funds for PCUs	21
6-5	Low profitability of palliative care in general wards	. 21
	cation and research	67
7-2	Insufficient postgraduate education	30
7-1	Insufficient undergraduate education, lack of departments of palliative care in medical schools	30
8. Oth		27
8-1	Lack of a multidisciplinary approach	

Answers that were mentioned by more than 20 respondents are listed here. PCU, palliative care unit; PPS, prospective payment system.

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palliative care" relates to the following views: that the general population, and patients and their families have little knowledge about palliative care or hospices; that they have a very negative view of palliative care and hospices, for example that hospices are just a place where patients go to die, or that palliative care is a particular branch of medicine. The answer concerning "general medical practitioners' failure to provide information and lack of communication skills" relates to the following views: that physicians are not providing accurate information on, for example, cancer diagnosis, metastasis, and short life expectancy; that physicians do not have the communication skills to sensitively deliver bad news; that there are few training programs for physicians; that physicians do not provide information regarding palliative care to patients and their families.

More detailed information regarding the barriers to palliative care as identified in the present study is available (in a report entitled "List of Barriers to the Nationwide Dissemination of High-Quality Palliative Care," available from corresponding author [MM]).

#### Priorities for future actions

We identified 136 different answers concerning future actions to advance palliative care in Japan, and classified these into 10 categories. The categories were: establishment of a palliative care specialty (3 defined answers), development of palliative care specialists (7), education for medical practitioners regarding palliative care (35), education for the general population, patients, and families regarding palliative care (10), development of a seamless transition system to palliative care (4), development of policies and systems for palliative care (28), development of systems for regional cooperation (10), improvement in the resources available for patients and their families in home care (3), development of an evidencebased approach to palliative care and research (22), and other (14).

Answers that were given by more than 20 respondents are listed in Table 3. The five most frequent answers were: "organize study sessions on palliative care or case conferences in hospitals" (n=122), "provide information about palliative care to the general population" (n=117), "in undergraduate education, make palliative care a compulsory course" (n=88), "educate medical practitioners about the philosophy and impor-

tance of palliative care" (n = 72), and "provide information on palliative care to patients and their families" (n = 67).

The answer "organize study sessions on palliative care or case conferences in hospitals" relates to the following views: that palliative care specialists should organize regional or in-hospital study sessions on palliative care for general physicians, nurses, nutritionists, pharmacists, medical social workers, and volunteers; that palliative care specialists should organize case conferences in hospitals for physicians and nurses; that the content of the proposed study sessions should involve pain management, symptom management, nutrition management, assessment of psychiatric symptoms and psychological status, spiritual pain, teamwork, and medical systems relating to palliative care. The answer "provide information about palliative care to the general population" relates to the following views: that palliative care specialists and the relevant organizations should provide information on palliative care to the general public via newspapers, internet resources, books, television programs, and television commercials; that palliative care specialists and the relevant organizations should organize regional lecture meetings for the general population on palliative care, home palliative care and medical systems. The answer "in undergraduate education, make palliative care a compulsory course" relates to the following views: that in undergraduate education for physicians, nurses, pharmacists, medical social workers, physical therapists, and occupational therapists, palliative care should be a compulsory course; that the certification examination for each of these professional groups should contain questions relating to palliative care; that education on not only pain and symptom management, but also psychological problems and communication skills should be provided in undergraduate courses.

Detailed information regarding the suggested future actions is provided in the abovementioned report, "List of Barriers to the Nationwide Dissemination of High-Quality Palliative Care," available from corresponding (MM).

#### DISCUSSION

This study identified 95 critical barriers and 136 future actions. We found that there exist numerous barriers to providing effective palliative care:

TABLE 3. FUTURE ACTIONS NECESSARY TO ADVANCE PALLIATIVE CARE

		n
2. Dev	elopment of palliative care specialists	
2-3	Establish a certification system for palliative care physicians	60
2-5	Facilitate acquiring the palliative care certification for nurses	23
3. Edu	cation for medical practitioners regarding palliative care	
3-16		122
3-7	Make palliative care a compulsory subject in undergraduate education	88
	Educate medical practitioners about the philosophy and importance of palliative care	72
3-9	Include palliative care in early postgraduate training	56
	Encourage general medical practitioners to consult palliative care specialists	43
	Conduct communication skill training	40
	Train home palliative care specialists	40
	Establish settings for information exchange and counseling about palliative care for medical practitioners	37
3_17	Develop and distribute palliative care manuals or booklets	33
3-4	Standardize educational programs and provision of palliative care education, removing	31
2.25	regional differences	29
3-35	Appeal to policy makers and hospital administrators to enhance awareness of palliative care	28
3-24	Make it compulsory for medical practitioners to participate in palliative care training	22
	Establish palliative care training in local regions	21
3-1	Establish departments of palliative care in medical schools	21
	cation for the general population, patients, and their families regarding palliative care	117
4-1	Provide information on palliative care to the general population	67
4-5	Provide information on palliative care to patients and their families	44
	Enhance social awareness about medical care and death	**
	elopment of a seamless transition system to palliative care	35
5-3	Deliver easily comprehensible explanations of the disease state to patients and their families	30
	elopment of policies and systems for palliative care	53
	Provide team care	30
6-5	Reexamine PPS for PCUs	24
6-1	Increase the number of PCUs or increase the number of PCU beds	23
6-3	Establish stringent rules for certifying as a PCU	23
	elopment of systems for regional cooperation	42
7-3	Establish district palliative care networks	42
	elopment of an evidence-based approach to palliative care and research	45
9-1	Establish device-based guidelines for symptn control	43 26
9-13	Carry out research for developing new treatments and technologies	26 25
9-21	Carry out and publish evaluations of provision of palliative care	23

Answers that were mentioned by more than 20 respondents are listed here. PCU, palliative care unit; PPS, prospective payment system.

not only problems relating to medical practitioners but also those relating to economic factors and the general population. These findings suggest that to overcome these barriers, we need to take action on many fronts, including increasing social awareness and effecting political change, as well as addressing problems relating to practitioners. Based on our content analysis, we prioritized the future actions needed to advance palliative care. The five most frequent urgent problems were also identified. We hope that collaborative efforts by the relevant organizations will improve palliative care in Japan.

Previous studies have found that the knowledge and skills of general medical practitioners

with regard to palliative medicine tend to be insufficient because of their lack of interest in this field. <sup>12–16</sup> These knowledge and skill deficits result in inadequate pain and other symptom management. <sup>6–8</sup> In addition, a lack of interest limits their medical intervention to symptom management, so the psychological and spiritual condition of the patient and their family is often overlooked. We assume that this lack of interest has its roots in the traditional role of the physician. The way in which medical intervention has progressed in the twentieth century has caused physicians to be oriented toward curative treatment; therefore, patients with incurable disease are neglected in the standard medical system. In

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addition, the minimal treatment given to palliative treatment in undergraduate and postgraduate medical education reinforces this tendency. Most physicians learn from the attitudes of senior physicians; therefore, this lack of interest in palliative care is propagated from senior to junior physicians in the Japanese medical system, and remains prevalent. Increasing physicians' awareness of palliative care could be a difficult and time-consuming task. In Japan, an increase in the number of hospital-based palliative care teams could be expected to enhance the awareness of palliative care by general medical practitioners in general wards, and these teams could also provide training. In addition, educational efforts directed at undergraduate and postgraduate physicians are necessary to change at the basic level physicians' attitudes toward palliative care.

The general population's lack of knowledge and misconceptions about palliative care are also of concern. There are widespread misconceptions about opioid use, the nature of palliative care (i.e., confusion with euthanasia), the palliative care (i.e., confusion with euthanasia). These misconceptions could result in insufficient pain control or existing palliative care resources not being used.

A failure by general medical practitioners to provide information and their poor communication skills is often pointed out in studies of palliative care carried out in Western countries. 9,10 There may exist cultural differences regarding patients' preferred communication style. Fujimori et al.33 investigated good communication between Japanese health professionals and patients when delivering bad news, and communication skill training has been carried out.34 Poor communication between physician and patient is the result of poor undergraduate and postgraduate education, and a lack of interest in patients with incurable disease. In Japan, wider dissemination of information on good communication for physicians, and nationwide communication training courses are required.

Insufficient postgraduate education could be caused by several factors: lack of time, lack of interest, and lack of an appropriate educational system. Although an Education on Palliative and End-of-Life Care program<sup>35</sup> has been launched in Japan, the number of participants has been very limited.

The insufficiency or absence of palliative care specialists is related to the lack of specialized

training facilities for physicians and the absence of departments of palliative care in universities and medical colleges. For physicians, palliative care has not been institutionalized as a specialty, so any physician can become a palliative care specialist in Japan. For nurses, several training facilities exist, but they are insufficient to produce the number of trained professionals needed. To recognize the skills of palliative care specialists, a certification system should be established for physicians and a certification system for licensed nurses should be reconsidered.

With regard to the future actions necessary to advance palliative care, a simple solution would be to organize study sessions on palliative care or case conferences in hospitals. Providing information on palliative care to the general population is difficult and is not conducted systematically. Newspaper- or television-based approaches would be insufficient to reach all strata of the population. We should develop innovative methods for nationwide dispersal of information on palliative care. Although most medical students receive palliative care lectures during their undergraduate education, it is necessary to reinforce the course qualitatively and quantitatively.<sup>36</sup> Unfortunately, lecturers in palliative care are often not palliative care specialists, and the number of class hours devoted to this topic is insufficient. The absence of specific departments of palliative care in medical schools represents a critical barrier to providing effective palliative care. In addition, palliative care should be compulsory in early physician training. In Japan, palliative care education has not yet been institutionalized with respect to either the medical educational system or gaining the official status that other medical specialties, such as oncology, hold. Both reinforcement in undergraduate education, and establishment of specific departments of palliative medicine are required.

As previously mentioned, educating medical practitioners about the philosophy and importance of palliative care is both important and difficult to accomplish. It is necessary to both impart information on the philosophy of palliative care and correct any misconceptions. In Japan, there is no educational system for general physicians regarding palliative care. This situation should be remedied immediately. The national organizations related to palliative care