

broader meaning. Chaplains take the power inequity between patients and providers very seriously. For us, any attempt to impose one's own values, beliefs, or opinions religious or otherwise on a patient, unless that opinion has been actively solicited, is considered unethical and the same as proselytizing. The general practice of a professional chaplain is to help each patient articulate and use their own beliefs and values in their coping. Although we applaud Dr. Balducci's clear declaration that proselytizing is not allowed, the extended example that ends the article is clearly an example of imposing one's own values and opinions about how one should spend the end of one's life. It effectively constitutes proselytizing and is not good spiritual care.

In sum, as with many situations in this intersection between oncology care, palliative care, and spiritual care, this paper would have been much improved by consultation with the professional chaplain, who is the spiritual care specialist on the interdisciplinary team. We encourage any practitioners who are interested in teaching or writing in this domain to seek consultation from their professional chaplain, who we trust will be more than willing to assist.

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## *The Current Practice of Oxygen Therapy for Dyspnea in Terminally Ill Cancer Patients: A Nationwide Survey of Japanese Palliative Care Physicians*



To the Editor:

Dyspnea is a frequent and distressing symptom among terminal cancer patients.<sup>1,2</sup> Oxygen therapy is often used to alleviate dyspnea in this population. However, the efficacy of oxygen therapy for dyspnea in patients without hypoxemia has not been proven,<sup>3,4</sup> and several guidelines are against its use in such patients.<sup>5,6</sup> In addition, oxygen therapy may worsen the quality of life because of adverse events such as oral dryness and feeling of restriction.<sup>7</sup> It is, therefore, important to explore the daily provision of oxygen therapy for cancer dyspnea by palliative care physicians and to determine the criteria for oxygen therapy for cancer dyspnea in patients without hypoxemia. We conducted a nationwide survey of Japanese palliative care physicians to assess the daily practice of oxygen therapy in terminal cancer patients in the presence or absence of hypoxemia.

## Methods

We identified 536 certified palliative care physicians in Japan from the Web site of the Japanese Society for Palliative Medicine as potential participants for a cross-sectional survey. From the 536 physicians, we randomly selected 268 (50%) and sent them questionnaires. Because of the lack of an existing specific questionnaire, we developed an ad hoc questionnaire based on literature review,<sup>3–8</sup> discussion among the authors—who are palliative care physicians—and the results of pilot testing. The questionnaire included several components of physician-reported practices regarding oxygen therapy for dyspnea at rest in terminally ill cancer patients (defined as those with an Eastern Cooperative Oncology Group performance status of 4 and with an estimated prognosis of a week or two). The first component examined physician-reported practices in a hypothetical scenario where a terminally ill patient with cancer continued to suffer severe dyspnea with or without hypoxemia. The following practices were evaluated:

- Physician-perceived first-line therapy for cancer dyspnea: The options included 1) oxygen therapy alone, 2) administration of parenteral opioid alone, 3) administration of parenteral benzodiazepine alone, 4) a combination of oxygen therapy

and administration of parenteral opioid, or 5) a combination of oxygen therapy and administration of parenteral benzodiazepine. The responses were scored on a 5-point Likert scale (1 = rarely and 5 = very frequently).

2. Physician-perceived effectiveness of oxygen therapy: The responses were scored on a 5-point Likert scale (1 = not effective and 5 = highly effective).
3. Details of oxygen therapy practice for cancer dyspnea: The options included 1) cannula/mask only, 2) high-flow nasal oxygen, and 3) noninvasive positive pressure ventilation and the upper limit of the oxygen dose used for inhalation.

All statistical analyses were performed using the statistical analysis software EZR (Saitama Medical Center, Jichi Medical University, Saitama, Japan).<sup>9</sup> On the 5-point Likert scale, the responses of “often-very frequently” and “effective-highly effective” were analyzed with 95% confidence intervals, and the average dose and median were analyzed for the upper limit of the oxygen dose. This study was approved by the Institutional Review Board of the Konan Hospital.

## Results

A total of 189 physicians responded (response rate of 71%) to the questionnaire. While 126 participants (70%; 95% confidence interval [CI], 63–76) indicated that they would choose oxygen therapy as the first-line treatment for terminal cancer patients with dyspnea when hypoxemia was present, 111 participants (60%; 95% CI, 54–68) answered they would opt for opioid injection when hypoxemia was absent (Table 1). With regard to the implementation of oxygen therapy, while 173 participants responded “Used” (93%; 95% CI, 88–96) in cases with hypoxemia, 64 of them responded “Used” (34%; 95% CI, 27–41) in cases with no hypoxemia. In response to a question on the improvement of symptoms after oxygen

therapy, 161 participants (86%; 95% CI, 80–90) responded “Effective” for patients with hypoxemia, and 68 of them (36%; 95% CI, 30–44) responded “Effective” for patients with no hypoxemia. With regard to the device used continuously for patients with hypoxemia at rest, while 90% of the participants used cannula/mask only, 10% of them switched to high-flow nasal oxygen therapy. The average upper limit of oxygen dose given continuously to patients with dyspnea, at rest with and without hypoxemia, was  $7.3 \pm 3.7$  L (95% CI, 6.9–8.0) and  $3.8 \pm 2.5$  L (95% CI, 3.5–4.2), respectively.

## Discussion

This study is the first nationwide survey that evaluates the practice of oxygen therapy for dyspnea in terminal cancer patients among Japanese palliative care physicians.

A major finding of the survey was that a third of the palliative care physicians very frequently used oxygen therapy for cancer dyspnea in terminal cancer patients without hypoxemia. This was a clear “evidence-practice gap.”<sup>5,6</sup> In a previous questionnaire survey of 214 physicians (63% palliative care physicians and 24% respiratory medicine physicians), 58% of the responding physicians considered oxygen therapy in dyspnea palliation to be effective. In addition, 29% of the palliative care physicians reported that they frequently used oxygen therapy with or without hypoxemia. Sixty-five percent of the respondents stated intractable dyspnea as the reason for starting oxygen therapy.<sup>8</sup> These results are consistent with our findings and suggest that oxygen therapy for intractable dyspnea, even in the setting of no hypoxemia, is a treatment option for palliative care physicians in daily practice.

The possible explanation may either be a rigid belief among palliative care physicians of the effectiveness of oxygen therapy for dyspnea regardless of the presence or absence of hypoxemia or the notion that

**Table 1**  
**First-Line Therapy at Rest for Continuous Dyspnea in Terminal Cancer Patients (Defined as Those With an Eastern Cooperative Oncology Group Performance Status of 4 and With an Estimated Prognosis of a Week or Two) by Palliative Care Physicians**

	Hypoxemia (+)% (95% CI)	Hypoxemia (-)% (95% CI)
Oxygen therapy alone	70 (63–76)	23 (17–30)
Administration of parenteral opioid alone	13 (9–19)	60 (54–68)
Administration of parenteral benzodiazepine alone	0.6 (0.4–5)	1.2 (0.1–0.4)
Oxygen therapy and administration of parenteral opioid combination	60 (52–67)	35 (28–42)
Oxygen therapy and administration of parenteral benzodiazepine combination	1.7 (0.4–5.0)	2.3 (0.6–5.8)

Shown is the frequency of the responses “Frequently” and “Very Frequently” as a percentage of all the responses for each treatment depending on the presence or absence of hypoxemia.

oxygen therapy serves as the minimum necessary care to patients facing imminent death.

There are several limitations to this study. First, this was a survey of physician-reported practices. Thus, there might be a discrepancy between their reported practice and actual practice in the real-world clinical setting. Second, as we did not collect the background information of participating palliative care physicians, the findings of this survey cannot be generalized.

### Conclusion

A significant number of Japanese palliative care physicians still administer oxygen therapy for dyspnea in terminal cancer patients without hypoxemia. To overcome this evidence-practice gap, we believe qualitative research that explores the physicians' thoughts or policies about oxygen therapy toward the end of a patient's life is necessary. Moreover, clinical research to explore the efficacy and adverse events of oxygen therapy for dyspnea at the end of life of patients with cancer, with or without hypoxemia, is warranted.

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### *Rating Delirium Severity Using the Nursing Delirium Screening Scale: A Validation Study in Patients in Palliative Care*



To the Editor,

Delirium has a high prevalence in the medically ill, especially in inpatient palliative care.<sup>1</sup> The fluctuation in clinical features of delirium over time has been a strong argument for developing rapid delirium

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