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Comment on "Usefulness of the Palliative Prognostic Index in Predicting Prognosis when Considering the Transition from Hospital to Home Care in Patients with Terminal Stage Cancer"

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To the Editor:

The article by Sakaguchi et al.[1], entitled "Usefulness of the Palliative Prognostic Index in Predicting Prognosis when Considering the Transition from Hospital to Home Care in Patients with Terminal Stage Cancer," offers valuable clinical insights into the prognostic assessment of terminally ill cancer patients in Japan. Given that hospital deaths remain prevalent, accurate prognosis is essential to support timely and appropriate transitions to home-based care. The authors' demonstration of the utility of combining the ECOG Performance Status (PS) with the Palliative Prognostic Index (PPI) offers practical value for clinical decision-making.

While their findings are meaningful, the single-center, retrospective design limits external validity. Previous prospective studies have supported the PPI's predictive performance. For instance, Fernandes et al.[2] reported that a PPI ≥ 6 predicted 3-week mortality with a positive predictive value (PPV) of 72%, sensitivity of 67%, and specificity of 72%. A PPI > 4 predicted 6-week mortality with a PPV of 88%. These findings support the PPI's potential utility in inpatient settings. However, more recent tools such as the modified Oncological Prognostic Score–Basic (mOPS-B) have shown improved sensitivity, albeit with limited calibration[3].

Incorporating disease-specific factors into prognostic models may further enhance predictive accuracy. Kishino et al.[4] reported that combining the PPI with the Glasgow Prognostic Score significantly improved stratification in patients with head and neck cancer, differentiating survival from a median of 127 to 15 days. Similarly, the JPHOPE model, developed for hematological malignancies, incorporates cancer-specific and regional factors to improve prognostic precision[5].

When selecting a model, trade-offs between feasibility and accuracy must be considered. Fung et al.[6] found that the PaP score had superior short-term discriminatory ability (C-statistic 0.76–0.80), compared to PPI and OPS (C-statistic ~0.68), although it requires laboratory data, which may limit its feasibility in resource-limited or home care settings. Clinical signs, such as Cheyne–Stokes breathing or reduced consciousness, have also been shown to strongly predict imminent death and may complement scoring tools, particularly in home care settings[7].

In conclusion, Sakaguchi et al.'s study contributes valuable evidence regarding the PPI's applicability in the context of end-of-life care at home. Realizing the full potential of the PPI will require further prospective validation, with consideration of disease specificity, integration with clinical signs, and adaptability to regional care practices. Prognostic tools—when used with an understanding of their limitations—can support shared decision-making and promote high-quality palliative care.

I sincerely wish the authors continued success in their important clinical research.

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