

# Letter to the editor regarding: “Development of the ProPal-COPD tool to identify patients with COPD for proactive palliative care”

Pere Almagro<sup>1</sup>

Pablo Martinez Cambor<sup>2</sup>

<sup>1</sup>Multimorbidity Patients Unit, Internal Medicine Department, Hospital Universitario Mutua de Terrassa, Universidad de Barcelona, Terrassa, Barcelona; <sup>2</sup>The Dartmouth Institute for Health Policy and Clinical Practice, Dartmouth College, Hanover, NH, USA

## Dear editor

We read with interest the recent article by Duenk et al entitled “Development of the ProPal-COPD tool to identify patients with COPD for proactive palliative care” recently published in the *International Journal of Chronic Obstructive Pulmonary Disease*.<sup>1</sup> We fully agree with the authors on the capital importance of proactive palliative care (PPC) in COPD, as well as its underutilization. Any article that contributes to increasing knowledge of PPC and its use with COPD patients who can benefit from it is to be celebrated. We also agree with the authors on the unpredictability of prognosis in COPD, especially the uncertain evolution of severe exacerbations and the impact of comorbidities.

We believe that the article deserves some considerations. First and most important in our opinion, PPC should not be limited to the terminal phase of chronic diseases such as COPD; it can be delivered alongside standard therapies, according to the needs and preferences of patients regardless of the risk of death in the short or medium term. Obviously, this does not mean that prognostic prediction scales are not useful in prognosis prediction. Nevertheless, its exclusive use may exclude many patients who could benefit from PPC.<sup>2</sup> For instance, in the model proposed by Duenk et al, seven dichotomic predictor variables were suggested to consider PPC based on their relationship with 1-year mortality. However, it seems clear that a COPD patient with severe airflow obstruction, disabling dyspnea, and several previous hospitalizations, although strictly not meeting all the recommended criteria, is a candidate for PPC. In this patient, PPC includes advanced care planning conversations, with their perspectives in case of a poor evolution in future exacerbations and preferences concerning the ceiling of treatment such as cardiopulmonary resuscitation, admission to the intensive care unit, and invasive mechanical ventilation. Additionally, pharmacological and non-pharmacological measures for dyspnea or others symptom treatment should be considered and discussed with the patient. In this example, the onset of these measures should be independent of other predictor variables and of foreseeable life expectancy. Of note, PPC measures by themselves do not shorten life but may be associated with increased survival.<sup>3</sup>

Second, from a strictly methodological point of view, we cannot forget that the model is built from just 30 positive patients. Even by using most sophisticated statistical procedures, we still have only little information about the general behavior of this population, and moreover, this is a strong limitation due to the relevance of the topic

Correspondence: Pere Almagro  
Multimorbidity Patient Unit, University  
Hospital Mutua de Terrassa, Terrassa,  
Barcelona 088226, Spain  
Email 19908pam@comb.cat



and the final decisions taken. Additionally, all prognosis models must be validated in a different external cohort, to avoid the risk of overestimation inherent in development cohorts. In the present study, only internal validation was performed. Finally, the exclusive use of the receiver operating characteristic curves and area under the curve for 1-year mortality limits consideration to the vital status of the patient 1 year after discharge, regardless of the time of death, and clearly survival time is relevant in this population. Cox regression analysis and Kaplan–Meier curves in patients with and without ProPal-COPD criteria would be of help to further clarify the result.

## Disclosure

The authors report no conflicts of interest in this communication.

## References

1. Duenk RG, Verhagen C, Bronkhorst EM, et al. Development of the ProPal-COPD tool to identify patients with COPD for proactive palliative care. *Int J Chron Obstruct Pulmon Dis*. 2017;12:2121–2128.
2. Almagro P, Yun S, Sangil A, et al. Palliative care and prognosis in COPD: a systematic review with a validation cohort. *Int J Chron Obstruct Pulmon Dis*. 2017;12:1721–1729.
3. Higginson IJ, Bausewein C, Reilly CC, et al. An integrated palliative and respiratory care service for patients with advanced disease and refractory breathlessness: a randomised controlled trial. *Lancet Respir Med*. 2014;2(12):979–987.

## Authors' reply

RG Duenk<sup>1</sup>  
 C Verhagen<sup>1</sup>  
 EM Bronkhorst<sup>2</sup>  
 RS Djamin<sup>3</sup>  
 GJ Bosman<sup>4</sup>  
 E Lammers<sup>5</sup>  
 PNR Dekhuijzen<sup>6</sup>  
 KCP Vissers<sup>1</sup>  
 Y Engels<sup>1</sup>  
 Y Heijdra<sup>6</sup>

<sup>1</sup>Department of Anesthesiology, Pain and Palliative Medicine, <sup>2</sup>Department of Health Evidence, Radboud University Medical Center, Nijmegen, <sup>3</sup>Department of Respiratory Medicine, Amphia Hospital, Breda, <sup>4</sup>Department of Respiratory Medicine, Slingeland Hospital, Doetinchem, <sup>5</sup>Department of Respiratory Medicine, Gelre Hospitals, Zutphen, <sup>6</sup>Department of Pulmonary Diseases, Radboud University Medical Center, Nijmegen, the Netherlands

Correspondence: RG Duenk  
 Department of Anesthesiology, Pain and Palliative Medicine, Radboud University Medical Center, PO Box 9101, 6500 HB Nijmegen, the Netherlands  
 Tel +31 24 366 6254  
 Fax +31 24 361 3585  
 Email ria.duenk@radboudumc.nl

## Dear editor

We thank Dr Almagro and Dr Martinez Cambor for their letter to the editor in response to our manuscript entitled "Development of the ProPal-COPD tool to identify patients with COPD for proactive palliative care".<sup>1</sup> We are pleased that both the authors agree with us on the importance of proactive palliative care (PPC) in COPD as well as its underutilization in this patient group. We also fully support their view that PPC should not be limited to the terminal phase of chronic diseases such as COPD but that it can be delivered alongside standard therapies, according to the needs and preferences of patients.

The authors' main concern with respect to the recent article was about the exclusive use of prognosis prediction of mortality for the start of PPC in COPD. They worried that patients in need of PCC would be missed out, because a recent review showed that existing prognostic criteria were not sufficiently reliable.<sup>2</sup> However, as mentioned in our article, prediction of mortality or identification of the terminal phase was never our objective. Our actual objective was to develop a tool as an additional aid to identify patients with COPD who are in need of PPC. Since palliative care needs increase during the disease course of COPD,<sup>3</sup> we merely used the prediction of 1-year mortality as a proxy for

the need of PPC. Moreover, to ensure minimal miss out of patients in need of PCC, we looked for and also managed to develop a tool with a high sensitivity (0.90) and a high possible specificity (0.73), while ensuring good discriminating power (AUC =0.82, 95% CI 0.81–0.82).

Not all seven dichotomic criteria of the ProPal-COPD tool need to be fulfilled to be eligible for PPC, as suggested by the authors. Each criterion has an own weight, and when the total sum of the model exceeds the specific cutoff point, the patient can be considered in need of PPC. This means that different combinations of a few or more criteria may be indicative for the need of PPC. Of course, as also mentioned in our article, before the clinical use of the ProPal-COPD tool, the external validity should be addressed in further research. This will be done in a nation-wide project in the Netherlands.

PPC in COPD, which includes advance care planning (ACP) conversations, still hardly takes place although the need for PPC in this patient group has been recognized. This is not only due to the unpredictable disease course but also due to the fact that both patients and physicians encounter barriers to initiate such conversations.<sup>4</sup> A recent study examining the quality of ACP conversations in patients with advanced chronic organ failure suggests that facilitation of initiation of ACP conversations is the key to improve PPC. It seems that otherwise, even when the disease progresses, needs and preferences of patients are hardly being explored.<sup>4</sup> Therefore, we believe that the development of the ProPal-COPD tool, for the initiation of PPC in COPD, responds to the need of patients and physicians.<sup>5</sup>

## Disclosure

The authors report no conflicts of interest in this communication.

## References

1. Duenk RG, Verhagen C, Bronkhorst EM, et al. Development of the ProPal-COPD tool to identify patients with COPD for proactive palliative care. *Int J Chron Obstruct Pulmon Dis.* 2017;12:2121–2128.
2. Almagro P, Yun S, Sangil A, et al. Palliative care and prognosis in COPD: a systematic review with a validation cohort. *Int J Chron Obstruct Pulmon Dis.* 2017;12:1721–1729.
3. Vermeylen JH, Szmulowicz E, Kalhan R. Palliative care in COPD: an unmet area for quality improvement. *Int J Chron Obstruct Pulmon Dis.* 2015;10:1543–1551.
4. Houben CH, Spruit MA, Schols JM, Wouters EF, Janssen DJ. Patient-clinician communication about end-of-life care in patients with advanced chronic organ failure during one year. *J Pain and Symptom Manage.* 2015;49(6):1109–1115.
5. Duenk RG, Verhagen C, Dekhuijzen P, Vissers K, Engels Y, Heijdra Y. The view of pulmonologists on palliative care for patients with COPD: a survey study. *Int J Chron Obstruct Pulmon Dis.* 2017;12:299–311.

Dove Medical Press encourages responsible, free and frank academic debate. The content of the International Journal of Chronic Obstructive Pulmonary Disease 'letters to the editor' section does not necessarily represent the views of Dove Medical Press, its officers, agents, employees, related entities or the International Journal of Chronic Obstructive Pulmonary Disease editors. While all reasonable steps have been taken to confirm the content of each letter, Dove Medical Press accepts no liability in respect of the content of any letter, nor is it responsible for the content and accuracy of any letter to the editor.

### International Journal of COPD

Dovepress

## Publish your work in this journal

The International Journal of COPD is an international, peer-reviewed journal of therapeutics and pharmacology focusing on concise rapid reporting of clinical studies and reviews in COPD. Special focus is given to the pathophysiological processes underlying the disease, intervention programs, patient focused education, and self management protocols.

This journal is indexed on PubMed Central, MedLine and CAS. The manuscript management system is completely online and includes a very quick and fair peer-review system, which is all easy to use. Visit <http://www.dovepress.com/testimonials.php> to read real quotes from published authors.

Submit your manuscript here: <http://www.dovepress.com/international-journal-of-chronic-obstructive-pulmonary-disease-journal>