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Response by Authors

Letter to the Editor: Response by Authors

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To the Editor

We would like to thank Drs. Aikaterini Gakidi, Nicholas S. Hopkinson, Michael I. Polkey, and Afroditi K. Boutou for their insightful comments on our manuscript entitled "Clinical Implications of *Pseudomonas Aeruginosa* Colonization in Chronic Obstructive Pulmonary Disease Patients."[1]

The results on acute exacerbation of chronic obstructive pulmonary disease (AECOPD) risks were elevated in both our study as well as the one conducted by Dr. Boutou back in 2014, although the definition of *Pseudomonas aeruginosa* colonization was not the same in these 2 studies. Nonetheless, together, with other published work in this area, the negative impact of *Pseudomonas aeruginosa* in future AECOPDs is consistently seen.

We also thank Dr. Aikaterini Gakidi for pointing out an error on our part in the Results section for which we requested an erratum. Regarding the mortality risks, apart from the small number of patients in our study, there are also other possible reasons that *Pseudomonas aeruginosa* colonization is unable to predict mortality as in our study as well as in Dr. Boutou's work[2] as the mortality in chronic obstructive pulmonary disease (COPD) patients can be due to nonrespiratory causes. Deaths from cardiovascular diseases and lung cancer are common causes of mortality in COPD patients as demonstrated in the Atherosclerosis Risk in Communities study.[3] As such, a larger-scale study with a longer follow-up period to assess the mortality, especially mortality due to AECOPDs, is needed in order to confirm the findings from Jacobs et al.[4]

Finally, given the negative impact of the identification *Pseudomonas aeruginosa* in COPD, as in this study as well as other studies, it is time for us to revisit the role of this bacteria in COPD. Shall we call it colonization or chronic infection as in bronchiectasis? Should this bacterium be given a major prognostic role as in the FACED−Forced expiratory volume in 1 second, Age, Colonization, Extension (radiologic) and Dyspnea− and bronchiectasis index? Is there a need for more aggressive treatment when *Pseudomonas aeruginosa* is first isolated in COPD patients? In the era of precision medicine, should we classify COPD patients with *Pseudomonas aeruginosa* colonization/chronic infection into a distinct phenotype?

There are lots of knowns and unknowns in this area and our manuscript is probably just the beginning in the research journey.

References

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