## "Get well soon!"... Why fast recovery from a COPD exacerbation matters

Andriana I. Papaioannou, Konstantinos Bartziokas, Stelios Loukides, Spyros Papiris, Konstantinos Kostikas

2<sup>nd</sup> Respiratory Medicine Department, University of Athens Medical School, Athens, Greece Conflicts of interest: Konstantinos Kostikas is a Novartis employee. None of the other authors have any conflicts of interest to declare.

An acute exacerbation of COPD (AECOPD) is an acute event in the natural history of the disease characterized by worsening of the patients' respiratory symptoms that is beyond day to day variability and leads to a change in medication<sup>1</sup>. AECOPD are known to be deleterious for the course of the disease because they are related to negative outcomes, such as worsening of Health Related Quality of Life (HRQoL)<sup>2</sup>, more rapid lung function decline<sup>3</sup> and increased mortality<sup>4</sup> the latest, especially in the case that the patient requires hospital admission<sup>5</sup>. The aforementioned observations, together with the fact that the best predictor of future AECOPD is the history of previous AECOPD<sup>6</sup> has resulted to a sustained effort to develop new effective interventions that will result to a reduction of AECOPD.

However, although prevention of AECOPD seems to be of great interest, still in the unlucky event of the occurrence of an AECOPD we have evidence that all effort has to be done for the rapid improvement of our patients. In the recent paper of Donaldson et al<sup>3</sup>, it has been shown that COPD patients who experienced an AECOPD, longer duration of symptoms were related to worse HRQoL, more rapid decline of lung function and shorter interval between exacerbation recovery and onset of the next exacerbation. These results are further supported by our analysis in patients experiencing more severe AECOPD requiring hospital admission in which we have shown that delayed symptom improvement and/or more severe and persistent impairment of lung function were independent predictors of increased risk of a future AECOPD<sup>7</sup>.

The aforementioned data support the need for early recognition of the symptoms of an AECOPD and effective timely treatment, that will prevent prolonged recovery, as this seems to be associated to an increased risk for future events. Furthermore, lung function deterioration compared to stable-state might serve as a potential predictor of the duration of an AECOPD and of the risk of future AECOPD.

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## Correspondence:

Andriana I Papaioannou 2nd Respiratory Medicine Department Attikon University Hospital University of Athens, Athens Greece E-mail: papaioannouandriana@gmail.com

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