

Title:

Is it time to give up on 'self-management' of COPD exacerbations?

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To the editor,

We read with interest the work by *Lenferink and colleagues* the results of the COPE-3 trial(1). This large randomised trial continues on from the authors earlier COPE-2 study(2) with personalised exacerbation action plans based on associated co-morbidities. The action plans were detailed, designed to determine symptom changes and the signs of an ensuing exacerbation. The study was negative for its primary endpoint (COPD exacerbation days) and no improvement in quality of life was found using the self-management intervention. The authors show no difference in the number of oral prednisolone courses in both arms, although per exacerbation event, it is clear that self-management dictates a significant increase of prednisolone prescription per event (95% (208/216) vs. 71% (163/230)) and thus would have also been the initial treatment for heart failure, anxiety, depression and ischaemic heart disease events. Interestingly, the authors found that patients that benefited in the self-management arm were those that had 1 or more COPD exacerbations in the 12 month study period. We now know that eosinophilic inflammation is associated with increased risk of exacerbations(3) and that patients that have the best response to systemic corticosteroids have eosinophilic exacerbations(4). We ask with interest if the authors phenotyped inflammation of the COPD patients prior to randomisation?

Undoubtedly pharmacotherapy should reflect the underlying cause and although the authors go towards achieving this, it is difficult to be confident that self-management during symptom deterioration of COPD is accurately being treated and may explain these and other findings of increased harm in interventions associated with self-management(5, 6). Although *Lenferink and colleagues*(1) make a significant step in trying to manage co-morbidities in their program, systemic corticosteroids are the predominant treatment in the self-management intervention, a highly toxic and potentially ineffective intervention(7). In parallel to personalising treatment towards co-morbidities, we believe that we should also be aiming at getting the right and best treatment to the patient first. Achieving this and improving outcomes in COPD is unlikely however to occur with current strategies directed towards self-management, where we have an unknown explanation for symptom worsening and toxic treatment.

References

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