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Title: Determinants and outcomes of physical activity in patients with COPD

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Body: Introduction: Physical activity (PA) is limited in COPD patients, but there is disperse information on its determinants and outcomes. To identify and summarize studies assessing associations between PA and its determinants and/or outcomes in COPD patients and to develop an initial conceptual model for PA in COPD. Methods: We conducted a systematic review to identify articles that consider PA and any measurements that may be a determinant or outcome of levels of PA in COPD. Teams of 2 reviewers independently selected articles for potential inclusion. Data extraction from included studies was also done independently by 2 reviewers. All discrepancies were resolved through discussion. We did not perform meta-analyses because of the heterogeneity of the studies, but summarised the results narratively. Results: We identified 2752 citations; 234 were selected for full text assessment; 47 were finally included. Consistent (identified as a statistically significant association in ≥ 3 studies) determinants included age and gender, lung function parameters, respiratory symptoms, exercise capacity, interventions of exercise training and oxygen therapy, and quality of life. PA was consistently related to mortality and exacerbations/hospitalizations.

Conclusions: Current literature allows drafting a conceptual model with determinants and outcomes of PA in COPD patients. A limitation of the evidence is the heterogeneity in design and measurements across studies.

