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PL-3054 Room G

# PL-3054 MINIMAL CLINICALLY IMPORTANT DIFFERENCE FOR FATIGUE AND COUGH PATIENT-REPORTED OUTCOME MEASURES IN CHRONIC OBSTRUCTIVE PULMONARY DISEASE

Rebelo P[1,2], Oliveira A[1,2], Marques A[1,2]

[1]University of Aveiro, Respiratory Research and Rehabilitation Laboratory (Lab3R), School of Health Sciences, Aveiro, Portugal, [2]University of Aveiro, Institute of Biomedicine, School of Health Sciences, Aveiro, Portugal

**Background:** Chronic Obstructive Pulmonary Disease (COPD) is a highly symptomatic disease that represents a major personal, economic and social burden worldwide. Thus, relieving patient's symptoms is considered a priority among the most effective interventions in COPD, i.e., pulmonary rehabilitation (PR). To assess the efficacy of PR in relieving patients' symptoms, the use of patient-reported outcome measures (PROMs) and interpretation according to their minimal clinically important difference (MCID - i.e., smallest change in the PROMs score, which is subjectively perceived as relevant by patients) have been recommended. Although MCID have already been established for several PROMs focusing on dyspnoea, to our knowledge no MCID exist for PROMs focusing on fatigue and cough, which are also highly prevalent and disturbing symptoms in patients with COPD. This gap hampers the interpretation and limits the management of fatigue and cough following a PR programme, which ultimately may lead to suboptimal tailored interventions.
**Purpose:** To contribute to establish the MCID for the Checklist of Individual Strength (CIS-20), Functional Assessment of Cancer Therapy - Fatigue (FACIT-F), Leicester Cough Questionnaire (LCQ) and Cough and Sputum Assessment Questionnaire (CASA-Q), following a PR programme in patients with COPD.
**Methods:** A prospective cohort study was conducted. Fatigue was assessed using both fatigue subscales of CIS-20 and FACIT-F. Cough was assessed with LCQ and with CASA-Q cough symptoms and impact dimensions. All measures were assessed before and after a 12-week community-based PR programme. The following distribution-based methods were used to calculate the MCID: standard error of mean (SEM), 1.96SEM, half standard deviation (0.5SD), minimal detectable change with 95% confidence ($MDC_{95}$) and Cohen's effect size. A pooled MCID for each PROM was calculated by summing the MCID obtained with each individual method and dividing it by the number of methods used.
**Results:** A total of 29 patients with COPD (83% male; 67.4±9.7years; 51.1±22.1 $FEV_1$%predicted) were enrolled in this study. Regarding to fatigue PROMs, the MCIDs obtained were: 8.3 [4.7-13.1] for the fatigue subscale of CIS-20; 5.0 [2.8-7.8] for the FACIT-F. For cough PROMs, the MCID obtained were: 2.8 [1.7-4.6] for the LCQ, 17.7 [9.7-29.7] for the CASA-Q cough symptoms and 11.6 [6.4-17.8] for cough impact. CIS-20, FACIT and CASA-Q cough symptoms presented effect sizes above 0.3.
**Conclusion(s):** Among patients with COPD undergoing PR a mean change of 8.3 points for the CIS-20 fatigue subscale, 5 points for the FACIT-F, 2.8 points in the LCQ, 17.7 points and 11.6 points for the CASA-Q cough symptoms and cough impact dimensions, is required to achieve a therapeutic threshold for the intervention effectiveness. Effect sizes of all PROMs were above the minimum value for being considered minimally clinically important. Future studies with larger samples and also including anchor-based methods should be conducted.
**Implications:** The MCID for fatigue and cough PROMs in patients with COPD will allow health professionals to better understand PR effects on important and yet relatively neglected symptoms and guide personalised interventions.

**Key-Words:** COPD, MCID, Pulmonary rehabilitation
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