of measurement (SEM), 1.96SEM, 0.5*standard deviation, minimal detectable change with 95% confidence (MDC95) and Cohen's effect size were used as distribution-based methods. Anchors used were changes in the 6MWT and the mMRC, which to be used in the MCID calculation, should present a moderate correlation (≥ 0.3) with the Brief-BESTest change. Mean changes and linear regressions were computed to estimate the MCID from anchor-based methods. A quality effects models weighting 2/3 for anchor and 1/3 for distribution-based methods was used and the pooled values were obtained using META XL. Sixty-three people with COPD (68.6 ± 8.1 years old; 49 [77.8%] male; FEV1 49.3 ± 17.8%predicted) were included in the analysis. MCID based on distribution-methods varied between 2.04 and 5.64 points. Significant correlations were found between changes in the Brief-BESTest and changes in the 6MWT (r = 0.33; p = 0.008) and the mMRC (r = -0.30; p = 0.016). MCID based on anchor methods ranged between 2.44 and 3.32 points. Figure 1 shows that the MCID pooled was 3.2 points (95% Confidence Interval 1.93-4.40).

Results: An improvement of 3.2 points in the Brief-BESTest seems to be clinically meaningful in people with COPD after a 12-weeks community-based PR programme.

Conclusions: Future research using other balance measures as anchors would be useful to further validate our results. The estimated MCID of the Brief-BEST will aid health professionals to understand the effects of PR on balance performance and guide tailored interventions.

Keywords: MCID. Balance. Pulmonary rehabilitation. COPD.

PC 188. FATIGUE PREDICTS EXACERBATIONS IN PATIENTS WITH COPD ATTENDING TO PULMONARY REHABILITATION

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Introduction: Acute exacerbations of chronic obstructive pulmonary disease (AECOPD) are the main reason for patients' clinical decline and are challenging to predict. Pulmonary rehabilitation (PR), among many other benefits, decreases the frequency of AECOPD and improves fatigue, a burdensome and highly prevalent symptom in patients with COPD. Although, the association between fatigue, morbidity, mortality and AECOPD has been well described, the prognostic value of fatigue to detect AECOPD during PR is unknown. This study explored the prediction ability of the functional assessment of chronic illness therapy fatigue subscale (FACIT-FS) and the checklist of individual strength fatigue subscale (CIS-FS), to distinguish between patients who experienced and did not experienced AECOPD during a PR programme.

Methods: An observational prospective study, part of a larger trial (3R: revitalising pulmonary rehabilitation) was conducted. Stable patients with COPD completed a 12-weeks community-based PR programme. Fatigue was assessed prior to PR enrolment using the FACIT-FS and the CIS-FS. An AECOPD was defined as an acute worsening of respiratory symptoms which required additional therapy. The occurrence of an AECOPD during PR was self-reported and recorded by the physiotherapists during the PR. Independent t-tests were used to explore differences in fatigue scores between patients who experienced an AECOPD and those who did not. Point biserial correlation coefficient (rpb) was used to explore associations between the FACIT-FS and the CIS-FS scores and the occurrence of an AECOPD. Receiver Operating Characteristic (ROC) curves were computed to test the FACIT-FS and CIS-FS ability to predict AECOPD and the corresponding cut-off scores and likelihood ratios (LR) were determined. Fifty-three patients with COPD were included in the analysis [68.4 ± 7.6 years old; 42 (79.2%) male; FEV1 48.1 ± 17.4%predicted]. Thirteen patients (24.5%) experienced an AECOPD during PR and presented significantly higher levels of fatigue at baseline than patients with no AECOPD (FACIT-FS: 28.5 ± 7.1 vs 34.8 ± 10.3, p = 0.044; CIS-FS: 44.1 ± 8.4 vs 34.5 ± 13.2, p = 0.018). Increased fatigue at baseline was correlated

with the occurrence of an AECOPD during PR (FACIT-FS, rpb = -0.28, p = 0.044; CIS-FS, rpb = 0.32, p = 0.018). FACIT-FS and CIS-FS showed good ability to discriminate between patients who experienced and did not experienced AECOPD during the PR programme (FACIT-FS: AUC = 0.71; 95%CI 0.58 to 0.85; p = 0.021; CIS-FS: AUC = 0.72; 95%CI 0.57 to 0.87; p = 0.019). Cut-off points of 32 points on the FACIT-FS and 44 points on the CIS-FS showed a 2.2 LR of identifying patients having AECOPD during PR (sensitivity = 68% and specificity = 69%).

Results: Patients scoring above (CIS-FS) or below (FACIT-FS) the established cut-off points were approximately 15% (LR≈2) more likely of having an AECOPD during PR.

Conclusions: These results highlight the need to comprehensively assess fatigue in patients with COPD, as well as to develop target interventions for its management during PR programmes. Future studies conducted with patients not enrolled in PR are needed to establish the external validity of our results.

Keywords: Fatigue. Exacerbation. Prediction ability. Facit. Cis..

PC 189. TELEMONITORING PHYSICAL ACTIVITY IN DAILY LIFE: INCREASED BENEFITS FOR THE PATIENT IN PULMONARY REHABILITATION

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Introduction: New information technologies are a promising tool for health services modernization and provide an enormous potential for personalized medicine in clinical practice. The Pulmonary Rehabilitation Unit from Hospital Pulido Valente has established SMARTREAB as a clinical routine for telemonitoring physical activity in daily life of chronic respiratory patients through synchronous accelerometry and oximetry. A major quality principle of such methodology has been the shared process between clinicians and the patient, analyzing objective telemonitoring data at the context of reported qualitative data.

Objectives: To illustrate case-examples of telemonitoring physical activity in daily life on chronic respiratory patients, applied on individualized patient evaluation and Pulmonary Rehabilitation.

Methods: One-year cross-sectional study of systematic telemonitoring physical activity of daily life in 100 chronic respiratory patients through SMARTREAB methodology.

Results: This methodology brought innovation and patient-service organization, with preliminary results of increased benefit in health care quality in diverse ways: individualized specific goal setting in Pulmonary Rehabilitation, routine habits reeducation with improved health in daily life, healthy physical activity habits follow-up and clinical exacerbations' early detection preventing avoidable hospitalizations.

Conclusions: Telemonitoring physical activity in daily life of a chronic respiratory patient, involving the patient in a participated analysis of the personalized objective and qualitative data, has increased benefits for the patient and his/her Pulmonary Rehabilitation.

Keywords: Telemonitoring. Physical activity. Pulmonary rehabilitation. Personalised medicine.

PC 190. FIRST STEPS ON HOME-BASED PULMONARY TELEREHABILITATION BY CENTRO HOSPITALAR UNIVERSITÁRIO LISBOA NORTE

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Introduction: Pulmonary Rehabilitation of Chronic Obstructive Pulmonary Patients (COPD) is scientifically recognized as the most ef-