of medical therapy. This case raises awareness to the importance of recognizing this association in the presence of hepatic cirrhosis.

**Keywords:** Chylothorax. Transudate. Hepatic cirrhosis.

**PC 185. PREDICTORS ASSOCIATED WITH SUCCESSFUL PLEURODESIS AND SURVIVAL IN MALIGNANT PLEURAL EFFUSION**

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Introduction: Malignant pleural effusion (MPE) dramatically decreases the quality of life and survival of cancer patients. There are multiple palliative approaches to drain the fluid and also to prevent relapse. Talc slurry pleurodesis remains one of the most common and effective therapeutic options in symptomatic patients with life expectancy of more than 2-3 months.

**Objectives:** Identify predictive factors related to the efficacy of talc slurry pleurodesis in patients with MPE.

**Methods:** Retrospective study of patients with malignant pleural effusion who underwent talc slurry pleurodesis over a 10-year period at the Pulmonology Department. Inclusion criteria: pleural malignancy proven by cytology and/or histology and information about biochemical parameters of pleural fluid. Efficacy was defined as no recurrence of pleural effusion. Survival was considered from the date of pleurodesis to death or the date of the last visit.

**Results:** A total of 29 patients with MPE undergoing pleurodesis were included. The average age was 76 ± 12 years with a male prevalence (57.1%). The group included 19 (67.9%) lung cancer patients, 3 (10.7%) with breast cancer, 2 (7.1%) with lymphoma, one (3.6%) with mesothelioma, one (3.6%) with pancreatic cancer, one (3.6%) with gastric cancer and one (3.6%) with cancer of unknown origin. Pleurodesis had a total success rate of 75% (rate of 68.4% in cases of lung cancer and 100% in other cases of cancer). Age and gender did not present a statistically significant association with the success of the technique (p > 0.05), however, there was a tendency for males to have higher relapse rates. Regarding pleural fluid biochemical parameters, a pH ≤ 7.3 and glucose > 60 mg/dl were associated with successful pleurodesis (p < 0.05). On the other hand, LDH, ADA, protein and cell count values did not show any statistically significant association (p > 0.05). The average total survival was 17 months (1-30) and was lower in patients in whom pleurodesis was not effective (mean 19.1 ± 8.4 vs 10.7 ± 8.3 months, respectively, p < 0.05).

**Conclusions:** As described in the literature, pleurodesis had a success rate of approximately 70%, with pleural effusion associated with lung cancer being particularly prone to relapse. Only two pleural fluid parameters were associated with the success rate of pleurodesis: pH ≥ 7.30 and glucose > 60 mg/dl. These factors must be taken into account to predict the timing of pleurodesis and the likelihood of relapse.

**Keywords:** Pleurodesis. Malignant pleural effusion.

**PC 186. PULMONARY REHABILITATION ADAPTED INDEX OF SELF-EFFICACY (PRAISE) VALIDATED TO PORTUGUESE RESPIRATORY PATIENTS**

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Introduction: Recent updates on Pulmonary Rehabilitation highlight the importance of patients' self-efficacy on long-term adherence to health-enhancing behaviors. Self-efficacy was defined by Albert Bandura as a personal construct of how successfully one can execute a required behavior to produce a desired outcome. Higher sense of self-efficacy has been found to be positively associated with better attendance and improvements in Pulmonary Rehabilitation and reduction in sedentary time following Pulmonary Rehabilitation in people with Chronic Obstructive Pulmonary Disease. The Pulmonary Rehabilitation Adapted Index of Self-Efficacy (PRAISE) is an adaptation of the General Self-Efficacy Scale, adding 5 new specific Pulmonary Rehabilitation items. The scale ranges from 15 to 60 with a higher score indicating higher levels of Self-Efficacy.

**Objectives:** This study aimed to translate, culturally adapt and evaluate reliability and validity of PRAISE on Portuguese respiratory patients.

**Methods:** Forward-backward translation and pilot testing were performed. Content validity was assessed by a multidisciplinary panel of expert judges. To evaluate reliability and validity, 150 respiratory outpatients on Pulmonary Rehabilitation participated on a cross-sectional study. Descriptive and reliability analyses, and exploratory factorial analysis using principal axis factoring, followed by oblique factor rotation was conducted to identify construct validity. IBM® SPSS® version 22 was used to perform statistical analysis.

**Results:** 150 patients with a mean age of 67 years, 54% male and 83% currently on Pulmonary Rehabilitation at Hospital Pulido Valente in Lisbon participated in the study. These included mainly Chronic Obstructive Pulmonary Disease patients (46.7%) but also Bronchiectasis (20%), Interstitial Lung Disease (20%) and other respiratory diseases. Exploratory factor analysis extraction provided a 4-factor solution that cumulatively explained 52.3% of total variance (F1: 26.6%; F2: 9.7%; F3: 8.7%; F4: 7.3%). Portuguese PRAISE showed a reliability of 0.78 (Cronbach alpha). Conclusions: The Portuguese version of PRAISE showed adequate psychometric properties to be used as an instrument to measure self-efficacy as a patient-centered outcome on Pulmonary Rehabilitation, in accordance with international guidelines.

**Keywords:** Self-efficacy. Praise. Validity. Pulmonary rehabilitation.

**PC 187. MINIMAL CLINICALLY IMPORTANT DIFFERENCE OF THE BRIEF-BESTEST IN PEOPLE WITH COPD AFTER PULMONARY REHABILITATION**

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Introduction: People with chronic obstructive pulmonary disease (COPD) present worse balance and fall more than their healthy peers. Therefore, the need to integrate balance assessment and management in the rehabilitation process of these patients has been highlighted in the latest American Thoracic Society/European Respiratory Society statement. The Brief-Balance Evaluation System Test (Brief-BESTest) is a comprehensive, reliable and valid measure of balance, commonly used in people with COPD, which provides valuable information to tailor patients’ balance training during pulmonary rehabilitation (PR). However, its clinical interpretability is currently limited due to the lack of cut-off points to identify clinical relevant changes. Therefore, this study aimed to establish the minimal clinically important difference (MCID) for the Brief-BESTest after a PR programme in people with COPD.

**Methods:** An observational prospective study, part of a larger study (3R: revitalising pulmonary rehabilitation) was conducted. Stable people with COPD completed a 12-week community-based PR programme with two weekly sessions of exercise training and one session every other week of education and psychosocial support. The following measures were collected: Brief-BESTest; 6-minute walk test (6MWT) and the modified Medical Research Council (mMRC). All measures were assessed pre and post PR. The MCID was computed using distribution- and anchor-based methods. The standard error
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 MCIID calculation, should present a moderate correlation (± 0.3) with the Brief-BESTest change. Mean changes and linear regressions were computed to estimate the MCIID from anchor-based methods. 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. MCIID 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), MCIID based on anchor methods ranged between 2.44 and 3.32 points. Figure 1 shows that the MCIID 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 MCIID of the Brief-BEST will aid health professionals to understand the effects of PR on balance performance and guide tailored interventions.

Keywords: MCIID. 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 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 (FACT-F) 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 FACT-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 (rbp) was used to explore associations between the FACT-FS and the CIS-FS scores and the occurrence of an AECOPD. Receiver Operating Characteristic (ROC) curves were computed to test the FACT-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 (FACT-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 (FACT-FS, rbp = -0.28, p = 0.044; CIS-FS, rbp = 0.32, p = 0.018). FACT-FS and CIS-FS showed good ability to discriminate between patients who experienced and did not experienced AECOPD during the PR programme (FACT-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 FACT-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 (FACT-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. Fact. 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-