

Background: Since the first description of ARDS, PEEP has remained an essential component in its management, aiming to improve gas exchange and keep the airways and alveoli open. However, the response to PEEP varies among patients, depending on pulmonary recruitability. The assessment of this potential can be performed in different ways, but there is still no consensus on the best clinical method for its measurement.

Objectives: The aim of this study was to compare four common clinical methods of assessing response to PEEP, using mechanical ventilator data and correlating them with clinical and mechanical characteristics of patients with ARDS.

Methods: This is a secondary analysis study of a prospective cohort of patients with ARDS. Inclusion criteria were age > 18 years, diagnosis of severe ARDS ($\text{PaO}_2/\text{FiO}_2 < 100$ sustained for at least 2 hours), and mechanical ventilation (MV) time = 48 hours. Patients with contraindications for alveolar recruitment maneuver (ARM), such as intracranial hypertension (ICH), undrained pneumothorax, and severe hemodynamic instability, were excluded. Patients were assessed by four methods before ARM: Stress Index (SI), morphology of the PxV curve, hysteresis, and Recruitment to Inflation ratio (RI-ratio). They were classified as "potentially recruitable" or "poorly recruitable" and underwent ARM as a rescue strategy. After the maneuver, the recruitment response was assessed.

Results: A total of 86 individuals were evaluated, with a mean age of 60.9 ± 12.1 years. The average length of stay was 17.4 ± 12 days, and the average MV time was 13.5 ± 7.8 days, with a mortality rate of 44.2% ($n=38$). The morphology of the PxV curve (AUC = 0.827 [95% CI 0.73–0.92]; $p=0.047$), hysteresis (AUC = 0.896 [95% CI 0.83–0.96]; $p=0.035$), and RI-ratio (AUC = 0.878 [95% CI 0.80–0.95]; $p=0.037$) were equivalent predictors, with no statistically significant difference between them (SMD: 0.126, 95% CI -0.113 - 0.129; $p=0.867$). SI had an AUC of 0.64 ($p=0.061$), not being a good predictor of response to PEEP. The "cutoff points" found were lower than those established in previous studies, both in hysteresis ($\text{VCe} - \text{VCi} = 378$ ml; GINI index = 0.792) and in RI-ratio (0.335; GINI index = 0.756).

Conclusion: The clinical methods used for evaluating recruitment potential were accurate and can be clinically applied to estimate recruitment potential in patients with severe ARDS, although the cutoff points found were lower than those described in previous studies.

Implications: Patients who could benefit from ARM may be incorrectly classified as non-recruitable, which could lead to the omission of the maneuver, even when rescue of severe refractory hypoxemia is necessary. This could hypothetically contribute to a reduction in morbidity and mortality and promote better clinical outcomes in this heterogeneous syndrome.

Keywords: ARDS, PEEP, methods of assessing, alveolar recruitment

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DEVELOPMENT OF A CORE SET FOR CHAGAS DISEASE: EXPLORING PATIENT PERSPECTIVES ON FUNCTIONALITY

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Background: The Core Set of the International Classification of Functioning, Disability, and Health (ICF) is the methodological process that allows for the definition of categories representing a set of functional outcomes related to a specific health condition. To validate a Core Set for Chagas Disease (CD), a qualitative study was conducted to understand the functional perspectives of this population. **Objectives:** Based on focus groups, this qualitative study represented the second stage in creating the Core Set and aims to list candidate categories that will be analyzed in subsequent phases.

Methods: The focus groups were conducted to identify the most relevant categories for adults of both sexes diagnosed with the cardiac form of CD, related to the functional consequences of the disease. Significant concepts were identified from the transcriptions using the condensation method. Subsequently, the concepts that emerged from the participants' statements were linked to ICF categories by two independent researchers.

Results: Sixteen adults (mean age: 67 ± 8 years), including 10 women and 6 men, participated in six focus groups. A total of 180 relevant concepts were identified, which were mapped to 41 of the 125 second-level categories from the ICF checklist. The identified concepts represented all ICF components: Body Functions (43% of concepts), Body Structures (7% of concepts), Activities and Participation (26% of concepts), and Environmental Factors (24% of concepts). The most frequently mentioned categories were: b134 (Sleep functions), b152 (Emotional functions), b280 (Pain), d930 (Religion and spirituality), and e310 (Immediate family). Patients with CD experienced a complex condition where sleep functions, emotional functions, and the presence of pain are interrelated, creating a significant impact on their quality of life.

Conclusion: The use of religious practices and the support of the immediate family appear to be important resources in managing these conditions.

Implications: The identified categories will be added to the list of candidate categories for reaching a consensus on a Core Set of the ICF for individuals with CD.

Keywords: ICF, validation studies, Chagas disease

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ASSOCIATION BETWEEN FUNCTIONAL DISABILITY, PHYSICAL PERFORMANCE, AND SOCIAL PARTICIPATION IN PEOPLE WITH INTERSTITIAL LUNG DISEASE: PRELIMINARY RESULTS

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Background: Interstitial Lung Disease (ILD) encompasses a heterogeneous group of over 200 diffuse parenchymal lung disorders, primarily characterized by pulmonary interstitial involvement, frequently affected by inflammation and fibrosis. Signs and symptoms vary depending on the underlying ILD condition but generally include dyspnea, fatigue, persistent cough, bibasilar crackles, digital clubbing, and psychological symptoms. These manifestations contribute to a decline in quality of life, reduced functional capacity, and low tolerance to physical exercise.

Objectives: This study aimed to investigate the association between functional disability, health status, quality of life, physical performance, muscle strength, and physical activity level in people with ILD.

Methods: This is a preliminary cross-sectional, multicenter study, part of a larger project, conducted with people diagnosed with ILD. In addition to clinical history and spirometry for pulmonary function assessment, specific instruments were applied, including the 12-item short version of the World Health Organization Disability Assessment Schedule (WHODAS 2.0), which assesses the impact on daily activities and social participation; the King's Brief Interstitial Lung Disease Questionnaire (K-BILD), which evaluates the quality of life and health status; the Participation Scale, measuring self-perceived social participation and daily activities; the Human Activity Profile (HAP), classifying physical activity level; the Handgrip Strength Test (HST), assessing peripheral muscle strength using a Jamar dynamometer; and the 6-Minute Walk Test (6MWT), which measures functional exercise capacity and cardiorespiratory endurance.

Results: The sample comprised 13 participants, with a mean age of 55.82 years (± 13.84 years), ranging from 33 to 81 years. The majority were male (7 participants, 53.8%), and five people (38.5%) were classified as overweight. Regarding educational background, 7 participants (53.8%) had completed high school, and in terms of self-reported ethnicity, 7 (53.8%) identified as mixed-race. Additionally, 4 participants (30.8%) had a prior diagnosis of post-COVID-19 pulmonary fibrosis. The mean WHODAS 2.0 score was 32.39 (± 19.14), ranging from 15 to 67 points. Correlation analysis revealed an association only between the WHODAS 2.0 short version and K-BILD (ICC = -0.56; $p = 0.05$).

Conclusion: Preliminary results indicate that a more significant functional disability in people with ILD is associated with poorer health status, as assessed by the K-BILD. The lack of significant associations with other variables may be attributed to the small sample size of this preliminary study. However, the findings suggest relevant trends that warrant further exploration in future analyses.

Implications: These findings suggest that physiotherapeutic assessments and interventions for people with ILD should consider not only pulmonary aspects but also functional and social dimensions. An integrated approach may be essential to improving the quality of life and social participation in this population.

Keywords: Lung Diseases, Interstitial, Functional Disability, WHODAS

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INTER-RATER RELIABILITY AND VALIDITY OF THE PERME ICU MOBILITY SCORE IN PEDIATRIC INTENSIVE CARE AND WARD SETTINGS

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Background: Early mobilization in pediatric intensive care units (PICUs) is essential to minimize complications and promote functional recovery. However, there is a lack of validated tools specifically designed to assess mobility in children with critical illness. The Perme ICU Mobility Score (Perme Score), originally developed for adults, assesses mobility considering barriers such as medical devices and ventilatory support. The validation of the Perme Score for pediatric use is crucial to guide rehabilitation strategies in this population.

Objectives: To validate the Perme Score for evaluating mobility in patients admitted to PICU and pediatric wards, by analyzing its inter-rater reliability and its correlation with the Functional Status Scale (FSS), a widely used instrument in the pediatric population.

Methods: A cross-sectional observational study was conducted in two hospitals including pediatric patients aged 6 to 17 years. The Perme Score and FSS were applied independently by trained physical therapists. Inter-rater reliability was assessed using the intra-class correlation coefficient (ICC), while the correlation between the two tools was analyzed using Pearson's test. P -value < 0.05 was defined statistically significant.

Results: A total of 166 participants were included, with a median age of 11 years. The initial assessment showed a mean Perme Score of 26.13 ± 7.89 and a mean FSS of 7.25 ± 2.21 . A moderate to strong negative correlation was observed between the Perme Score and FSS ($r = -0.642$; $p < 0.01$), indicating that better mobility is associated with less functional impairment. Interrater reliability was excellent (ICC = 0.99).

Conclusion: The Perme Score proved to be a valid and reliable tool for assessing mobility in hospitalized pediatric patients. Its structured approach allows for the identification of mobility barriers and effective monitoring of functional progress throughout hospitalization.

Implications: Validating the Perme Score for the pediatric population supports its integration into clinical practice in both ICU and ward settings. The Perme Score can support early mobilization protocols and contribute to personalized rehabilitation strategies by objectively assessing mobility status of patients. Consequently, it has the potential to improve functional outcomes for critically ill children and promote evidence-based decision-making in physical therapy.

Keywords: Pediatric Intensive Care, Physical Functional Performance, Mobility Limitation Assessment

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VIVIFRIL TRAINING IMPROVES FUNCTIONAL CAPACITY OF INSTITUTIONALIZED ELDERLY PEOPLE: A RANDOMIZED CLINICAL TRIAL

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