(professional category and service) variables. The service variable was classified into "clinical service", "clinical support service" and "non-clinical services". Sample: Workers at a Hospital Center with occupational diseases notified during the study period (n = 848). Occupational respiratory diseases and COVID-19 with pneumonia were included. Occupational diseases of other etiologies and the rest due to COVID-19 were excluded.
Results: During the study period, 38 occupational respiratory diseases were reported (4,5% of the total occupational diseases), which corresponded to 36 workers, mostly female (71,1%). The mean age was 44,2 ± 12,9 years. Nurses (27,8%) and Operational Assistants (27,8%) were the professional categories with the highest notification of occupational respiratory diseases. There were more occupational respiratory diseases in Clinical Services (69,4%). Tuberculosis was the most notified occupational disease (55,3%, where 57,1% occurred more than 10 years ago). SARS-CoV-2 Pneumonia was the second most frequent (28,9%), a moderate to severe manifestation of COVID-19, where the average age of workers was higher (55,7 years). Asthma (5,2%) and Rhinitis (5,2%), where latex was the triggering factor, also occurred. A *Chlamydia pneumoniae* Infection and a Whooping Cough, in two doctors (33 and 26 years old, respectively) who provided unprotected care to infected patients also should be highlighted.
Conclusions: The jobs were adapted to the conditions of the workers, including replacement proposals in 5,3% of the cases. The most frequent professional categories are those with greater contact with risk factors (biological and/or chemical). A lower notification of Tuberculosis in recent years may result from a lower incidence in the community, as well as from the administrative and preventive measures applied, where the role of Occupational Health Service was and has been relevant. The low frequency of cases of occupational asthma may be related to the reduction in the use of latex gloves and their replacement by powder-free gloves with a low allergen content. However, other hospital risk factors that trigger asthmatic conditions must be considered and controlled. Although occupational respiratory diseases were infrequent, isolated cases of Whooping Cough and a Chlamydia pneumoniae Infection, as well as SARS-CoV-2 Pneumonia, recall the need for adequate use of protective equipment by workers, to prevent infectious diseases transmitted by droplets and/or microdroplets.

***Keywords**: Occupational respiratory diseases. Health professionals. Occupational health.*

CO 059. PRESENCE OF EXTRA-PULMONARY TREATABLE TRAITS IN PEOPLE WITH COPD INCREASES THE LIKELIHOOD OF RESPONDING TO PULMONARY REHABILITATION

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Introduction: Evidence suggests that people with chronic obstructive pulmonary disease (COPD) who have worse clinical status (e.g., higher symptom burden) at baseline respond better to pulmonary rehabilitation. Identification of treatable traits in this population might help to better distinguish responders from non-responders, which could aid optimisation of the intervention in the future. This study aimed to explore the impact of pulmonary rehabilitation on extra-pulmonary traits of people with COPD and whether the presence of these treatable traits at baseline influences the type of response (responder or non-responder) to pulmonary rehabilitation.
Methods: An observational retrospective study was conducted. A comprehensive extra-pulmonary treatable traits' assessment including symptoms (dyspnoea, fatigue, anxiety, and depression), functional status, balance, impact of the disease and health-related quality of life, was conducted before and after a 12-week community-based pulmonary rehabilitation programme. Pre-post differences between people with or without each TT were compared with independent samples t-tests or Mann-Whitney U tests. The proportion of responders between groups (with or without treatable traits) were explored with chi-square tests and odds ratio.
Results: A total of 102 people with COPD (70 [65; 75] years old, 78% male, FEV1 47 [36; 60]% predicted) were included. People with COPD had a median [min-max] of 3 [0-7] treatable traits per person and each responded on average to 5 [0-9] outcomes of pulmonary rehabilitation. People with identified treatable traits at baseline were more responsive than those without them in all outcomes ($p < 0.05$) except for the 1-minute sit-to-stand test. The presence of treatable traits increased the likelihood of being a good responder in all outcomes (OR: 1.72-19.95) except for the 1-minute sit-to-stand test ($p = 0.175$).
Conclusions: Identification of extra-pulmonary treatable traits in people with COPD showed potential to inform on pulmonary rehabilitation responsiveness and might therefore be an important strategy for patient selection, treatment personalisation and optimisation.

***Keywords**: COPD. Treatable traits. Pulmonary rehabilitation. Comprehensive assessment. Responder analysis.*

CO 060. EFFECTS OF PULMONARY REHABILITATION IN THE FUNCTIONAL STATUS OF PEOPLE WITH ILD – A SYSTEMATIC REVIEW AND META-ANALYSIS

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Introduction: Interstitial lung diseases (ILD) are a disabling group of chronic respiratory diseases characterized by different degrees of lung inflammation and fibrosis. People with ILD frequently report a decline in their functional status with a significant impact on their daily life activities. Functional status is an individual's ability to perform normal daily activities required to meet basic needs and maintain health and well-being. It includes functional capacity which refers to one's maximal potential to realize a functional activity in a standardized environment and functional performance which refers to the activities people do during their daily life. Pulmonary rehabilitation (PR) has been shown to improve dyspnoea, exercise capacity and health-related quality of life in people with ILD, but its effects on the functional status of this population are widespread in the literature.
Objectives: To synthesize the evidence of PR in the functional capacity and functional performance of people with ILD.
Methods: A systematic review was conducted (CRD42022298584). Searches were performed in PubMed/MEDLINE, Scopus and Web of Science Core Collection databases for randomised controlled trials comparing PR with usual care in adults with ILD. Two independent reviewers assessed the titles, abstracts and full-texts according to the eligibility criteria, extracted and analyzed data and assessed the risk of bias with the Risk of Bias 2 tool.
Results: Eight studies were included comprising 297 individuals with ILD (mean age range: PR group 45-71 years old; control group 40-72 years old) with severe to very severe lung function (DLCO% predicted mean range: PR group 44-67%pred; control group 37-64%pred). Functional capacity was assessed with the 6-minute walk test (6MWT) (n = 8), 30-second sit-to-stand test (30sec STS) (n = 1) and 6-minute stepper test (6MST) (n = 1). Functional performance was assessed with the number of daily steps, with a pedometer (n = 1) or SenseWear Armband (n = 1), and the international physical activity questionnaire (IPAQ) (n = 1). Significant improvements in functional capacity measured with the 6MWT (n = 201, MD 55.8 m, 95%CI

[37.5; 74.1], p < 0.0001), the 30 sec STS (n = 32, MD 4.1 reps., 95%CI [2.3; 5.9], p < 0.0001) and the 6MST (n = 35, MD 69.0 steps, 95%CI [3.3; 134.7], p = 0.0394) were observed after PR compared with the control group. No statistically significant between-group differences in functional performance measures were observed.
Conclusions: Pulmonary rehabilitation showed significant positive effects on the functional capacity but not on the functional performance of individuals with ILD. Measurements were mainly focused on the 6MWD, and few other functional status outcome measures have been included in PR programs. A more comprehensive assessment of this meaningful health domain to individuals with ILD, namely of their functional performance, which reflects what people do in their daily life, is fundamental to include in the routine assessment of PR, to identify needs and optimize care for this population.

Keywords: *Pulmonary rehabilitation. Interstitial lung diseases. Functional status. Functional capacity. Functional performance.*

CO 061. FUNCTIONAL STATUS FOLLOWING PULMONARY REHABILITATION IN PEOPLE WITH AECOPD - A SYSTEMATIC REVIEW AND META-ANALYSIS

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Introduction: Acute exacerbations of chronic obstructive pulmonary disease (AECOPD) lead to a decline not only in the patient's lung function but also in other important health domains, such as functional status. Functional status includes functional capacity and functional performance. Functional capacity refers to one's maximal potential to realize a functional activity in a standardized environment. Functional performance refers to the activities people actually do during their daily life. Pulmonary rehabilitation (PR) is fundamental for COPD management, however, its effectiveness in improving the functional status (capacity and performance) during and after AECOPD is less known.
Objectives: To systematize the effects of PR in the functional status (capacity and performance) during or immediately after an AECOPD.
Methods: This systematic review was registered (no. CRD42022298593). Systematic searches for randomised controlled trials (RCTs) comparing PR (with, at least, exercise training and education and/or psychosocial support) with usual care in people during and/or after AECOPD were conducted in PubMed/MEDLINE, Scopus, and Web of Science Core Collection. Two independent reviewers assessed the titles, abstracts and full text of studies, extracted data and assessed the risk of bias with the Risk of Bias 2 tool. Mean and standardized differences (MD/SMD) were calculated to synthesize results. A statistical random effects model was applied in the meta-analysis.
Results: Eight studies were included. The total number of participants was 533, with an age range of 58-74 years and an FEV1%predicted of 35-56%pred. PR was conducted in inpatient (n = 3), outpatient (n = 4) and inpatient/outpatient (n = 1) settings with varying durations and frequencies. Functional capacity was assessed with six measures, the six-minute walk test (6MWT) (n = 3), incremental shuttle walk test (ISWT) (n = 2), the 2-minute walk test (2MWT) (n = 1), 5-repetition sit-to-stand test (5 STS) (n = 1), 30-second sit-to-stand test (30sec STS) (n = 1), and timed up and go (TUG) (n = 1). Functional performance was assessed with four measures, the functional independence measure (FIM) (n = 1), london chest activity of daily living (LCADL) (n = 1), activity of daily living dyspnoea (ADL-D) (n = 1) and stepwatch activity monitor (steps/day) (n = 1). Significant improvements were observed in functional capacity, measured with the 6MWT (n = 159, MD 91.5, 95%CI [23.5; 159.5], p = 0.008) after outpatient and in TUG (n = 32, MD -2.2, 95%CI [-3.9; -0.5], p = 0.009) after inpatient PR in the EG compared to CG. Functional performance, measured with the ADL-D and the LCADL (n = 160, SMD 1.0, 95%CI [0.8; 1.2], p < 0.0001), as well as with the FIM (n = 44, MD 7.5, 95%CI [2.1; 12.8], p = 0.006), improved significantly after inpatient PR in comparison to usual care. No other significant between-group differences were observed for functional capacity or performance.
Conclusions: Pulmonary rehabilitation improves functional status during or immediately after an AECOPD. Nevertheless, few studies with small samples and high heterogeneity of outcome measures and interventions exist, which hinders conclusions. Functional performance is less assessed than functional capacity. Inclusion of both is fundamental to tailor PR in AECOPD and ensure benefits translate not just to what people can, but also do in their daily life.

Keywords: *Chronic obstructive pulmonary disease. Pulmonary rehabilitation. Activities of daily living. Functional status.*

CO 062. INTENSITY AND SAFETY OF COMMUNITY-BASED PHYSICAL ACTIVITIES FOR PEOPLE WITH COPD

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Introduction: long-term maintenance of the benefits obtained with pulmonary rehabilitation (PR) in people with COPD is of upmost importance, yet highly challenging. Integrating these people in community-based physical activities (PAs), after PR, can be a promising strategy to maintain achieved benefits. Nevertheless, to confidently advise people with COPD to enrol these community-based PAs, clinicians must ensure those are safe and ideally are of at least moderate intensity (following PAs guidelines). This study aimed to explore safety and intensity level of community-based PAs (cardiofitness room, senior gymnastics, and aquatic gymnastics) in people with COPD, after PR.
Methods: an observational cross-sectional study, part of a larger trial (NCT04223362) was conducted. People with COPD that had finished a community-based PR programme, conducted in the Respiratory Research and Rehabilitation Laboratory (Lab3R) or in four primary health care centres (Aveiro, Estarreja, Oliveira do Bairro and Montemor-o-Velho), and that had a positive risk-benefit analysis regarding their inclusion on community-based PAs were included. Participants were given the opportunity to choose among the available community-based PAs (previously identified as adequate), the one(s), they wanted to try, and were then accompanied by a physiotherapist. During the community-based PAs, dyspnoea and fatigue perception were assessed every 20 minutes using the modified Borg 0-10 scale; and heart rate (HR) and percentage of peripheral oxygen saturation (SpO2) were constantly monitored. Participants wore the SenseWear Armband on the left triceps to estimate the Metabolic Equivalent Task (METs) of each community-based PA. The final community-based PAs intensity level was obtained by summing the intensity levels yielded by: dyspnoea and fatigue Borg scores, maximal HR percentage predicted (HRmax%predicted) (where HRmaxpredicted = 220-age), and METs; with 3-6 Borg scores, 64-76% of HRmax%predicted, and 3-6 METs identifying moderate intensities. For security standards, SpO2 below 88% and HRmax%predicted above 85% were considered. The occurrence of any adverse event during the PAs was registered.
Results: three community-based PAs were included, cardiofitness room (9 people with COPD, 68 ± 9 years, 100% men, 58 ± 21 FEV1%predicted), senior gymnastics (8 people with COPD, 70 ± 9 years, 75% men, 53 ± 11 FEV1%predicted), and aquatic gymnastics (6 people with COPD, 68 ± 10 years, 100% men, 49 ± 16 FEV1%predicted). Overall, the explored community-based PAs were classified as of moderate intensity. Only one participant presented a SpO2 below 88% on the cardiofitness room (lowest SpO2 registered was 86%) and the