dividuals. It is also important to mention that a significant part of the sample did not perform any preventive inhalation therapy and only 15% of the individuals were followed in a Pulmonology consultation. We conclude that, in the population studied, asthma was not associated with a greater risk of severe forms of the disease, nor was it associated with a worse prognosis.

Keywords: *Asthma. COVID-19. Respiratory support. Inhalation therapy.*

CO 040. EPI-ASTHMA - PREVALENCE AND CHARACTERISATION OF PATIENTS WITH ASTHMA ACCORDING TO DISEASE SEVERITY: FIRST DATA FROM AN OBSERVATIONAL, NATIONAL STUDY

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Introduction: Data on the epidemiology of asthma in Portugal were mainly grounded in studies using questionnaires and covering limited age groups. Studies assessing the prevalence of asthma diagnosis and of its sub-groups with more accurate methods are therefore needed.
Objectives: Epi-asthma aims to determine the prevalence of asthma, difficult-to-treat and severe asthma in Portugal. This work aimed to assess the feasibility of the study through the analysis of the first data obtained from Unidade Local de Saúde de Matosinhos (ULSM).
Methods: A population-based nationwide study with a multicentre stepwise approach will be conducted in 38 primary care centres. The stepwise approach in 4 stages, sequentially comprising: Stage 0 - A random sample will be obtained from all registered subjects in community health centre and participants will be invited via a phone call; Stage 1 - Telephone interview survey to assess respiratory symptoms; Stage 2 - Clinical assessment with physical examination and diagnostic tests for diagnostic confirmation; Stage 3 - Characterization of patients with asthma (sub-group) and of patients with difficult-to-treat asthma & severe asthma after 3 months. At stage 3, data will be collected through a follow-up phone call, review of the patient file in Portuguese National Health Service patients' database and CARATm app database (for patients who are willing to use it). At stage 1, 7500 adult subjects registered in the Portuguese National Health Service patients' database will be enrolled. From those, participants that have respiratory symptoms pass to stage 2.
Results: The study started in May 2021 at the ULSM. A total of 1,305 subjects were invited at stage 0, 892 accepted to participate and 573 were interviewed at stage 1 (57% female, average 52 ± SD 16 [min-max 18-89] years). At stage 2, were assessed 148 (57% female; 57 ± 15 [18-89] years). From these, 46 were diagnosis with asthma (57% female; 51 ± 17 [18-82] years), 10 of those without previous diagnosis. Half (52%) had their asthma controlled according to Control of Allergic Rhinitis and Asthma Test (score >24), 26% had at least one exacerbation in the last year and 22% had at least one unscheduled medical visit. A total of 44 (96%) accepted to participate at stage 3, planned to start in august.
Conclusions: The first data show the feasibility of the stepwise approach of EPI-ASTHMA, the first national study that will assess the prevalence of asthma, difficult-to-treat and severe asthma in Portugal. The nature and quality of the collected data will also enable a comprehensive characterization of patients with asthma and better support the clinical management of the disease.

Keywords: *Asthma. Portugal. Prevalence.*

CO 041. PERSISTENT ASTHMA IN 30 PORTUGUESE PRIMARY HEALTHCARE UNITS: DATA FROM THE INSPIRERS PROJECT

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Introduction: Data regarding asthma control in primary healthcare (PHC) is limited. This study aimed to characterize patients with persistent asthma followed in PHC.
Methods: This was a multicentre, observational and descriptive study with a convenience sample. Participants were recruited in 30 PHC units between 12/2019 and 10/2020 (3 months suspension due to COVID-19). The inclusion criteria were patients with persistent asthma under preventive inhaled medication, with at least 13 years old and with access to a smart device. Patients that refused to participate or had another respiratory disease were excluded. Demographic and anthropometric data, smoking habits, age at diagnosis, asthma control according to Global Initiative for Asthma (GINA), pulmonary function (through forced expiratory volume in the first second - FEV1), medication, inhaler adherence (visual analogue scale 0-100) and quality of life (EQ-5D) were collected.
Results: The study included 139 participants, 86% adults and 73% females, with mean age of 34 ± 14 years old and a body mass index of 25 ± 5 kg/m^2. About 11% were active smokers and 36% were second-hand smokers. Median age of asthma diagnosis was 14 (interquartile range, IQR 5-28) years old. According to GINA, asthma was partially controlled in 38% of participants and not controlled in 24%. FEV1 was recorded in only 37% of participants. 66% had, at least, one exacerbation in the last 12 months, 40% needed at least one unscheduled medical visit and 3% required hospital admissions in the same period. Participants had a mean of 1.4 ± 0.5 inhalers prescribed (94% ICS+LABA), with a median adherence of 80 (IQR 55-96). According to the EQ-5D questionnaire, some participants exhibited problems in usual activities (16%), pain/discomfort (26%) and anxiety/depression (43%). Problems related to mobility (8%) and self-care (2%) were uncommon.
Conclusions: Most patients were adults, females, with an asthma diagnosis at young age, had their asthma partially or poorly controlled and had no perception of relevant impact in their quality of life. Results showed the need to develop strategies to improve asthma monitoring and therapeutic adherence, highlighting the insufficient monitoring of lung function.

Keywords: *Primare care. Asthma control. Medication adherence. Quality of life.*

CO 042. COPD PROFILES AND TREATABLE TRAITS USING MINIMAL RESOURCES: IDENTIFICATION, DECISION TREE AND LONGITUDINAL STABILITY

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Introduction: Chronic obstructive pulmonary disease (COPD) is highly heterogeneous and complex. Hence, personalising assessments and treatments to this population across different settings and available resources imposes challenges and debate. Research efforts have been made to identify clinical phenotypes or profiles

for prognostic and therapeutic purposes. Nevertheless, such profiles often do not describe treatable traits, focus on complex physiological/pulmonary measures which are frequently not available across settings, lack validation and/or their stability over time is unknown.
Objectives: To identify profiles and their treatable traits based on simple and meaningful measures; to develop and validate a profile decision tree; and to explore profiles' stability over time in people with COPD.
Methods: An observational, prospective study was conducted with people with COPD. Clinical characteristics, lung function, symptoms, impact of the disease (COPD assessment test-CAT), health-related quality of life, physical activity, lower-limb muscle strength and functional status were collected cross-sectionally and a subsample was followed-up monthly over six months. A principal component analysis and a clustering procedure with k-medoids were applied to identify profiles. Pulmonary and extrapulmonary (i.e., physical, symptoms and health status, and behavioural/life-style risk factors) treatable traits were identified in each profile based on the established cut-offs for each measure available in the literature. The decision tree was developed with 70% and validated with 30% of the sample, cross-sectionally. Agreement between the profile predicted by the decision tree and the profile defined by the clustering procedure was determined using Cohen's Kappa. Stability was explored over time with a stability score defined as the percentage ratio between the number of timepoints that a participant was classified in the same profile (most frequent profile for that participant) and the total number of timepoints (i.e., 6).
Results: 352 people with COPD (67.4 ± 9.9 years; 78.1% male; FEV1 = 56.2 ± 20.6% predicted) participated and 90 (67.6 ± 8.9 years; 85.6% male; FEV1 = 52.1 ± 19.9% predicted) were followed-up. Four profiles were identified with distinct treatable traits. The decision tree was composed by the CAT, age and FEV1% predicted and had an agreement of 71.7% (Cohen's Kappa = 0.62, p < 0.001) with the actual profiles. 48.9% of participants remained in the same profile whilst 51.1% moved between two (47.8%) and three (3.3%) profiles over time. The overall stability of profiles was 86.8 ± 15%.
Conclusions: Profiles and treatable traits can be identified in people with COPD with simple and meaningful measures possibly available even in minimal-resource settings. Regular assessments are recommended as people with COPD may change profile over time and hence their needs of personalised treatment.

Keywords: *Clinical phenotypes. Profiles. Clusters. Treatable traits. Decision tree. COPD.*

CO 043. EFFECTIVENESS OF UNSUPERVISED PHYSICAL ACTIVITY INTERVENTIONS IN PEOPLE WITH COPD: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Introduction: Physical inactivity has been associated with poor health outcomes in people with chronic obstructive pulmonary dis-

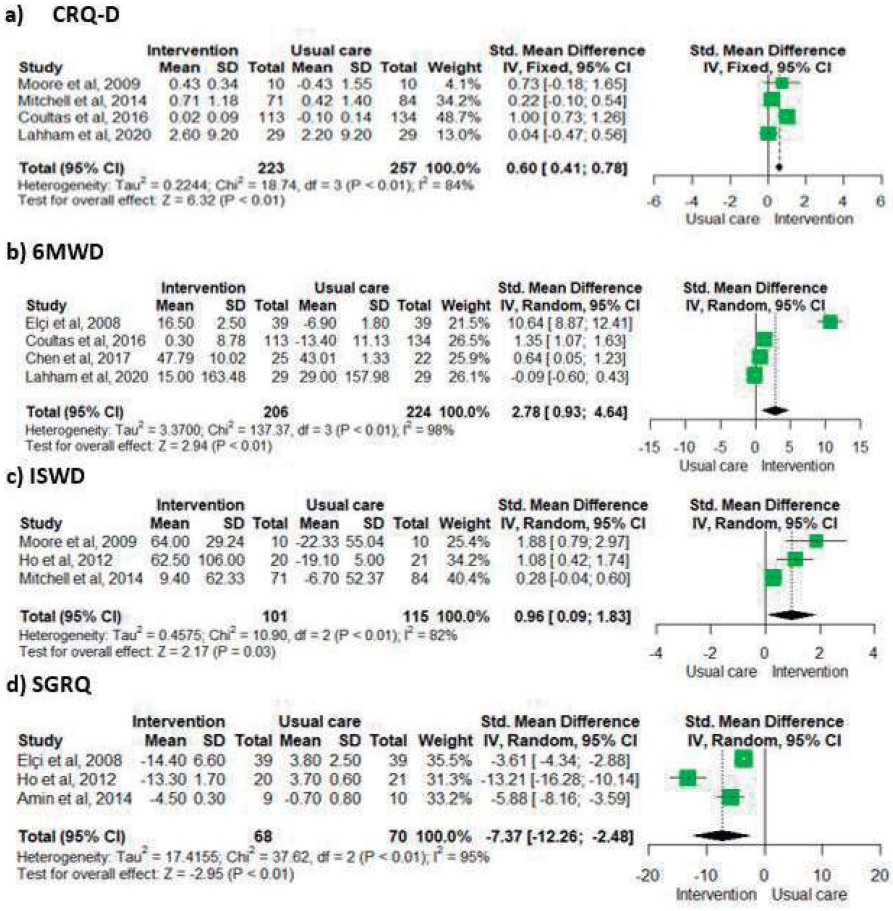

Fig. 1 - Forest plots illustrating the effect of unsupervised PA intervention in: a) Chronic Respiratory Questionnaire – dyspnea domain (CRQ-D), b) 6-minute walk distance (6MWD), c) incremental shuttle walk distance (ISWD), and d) St. George's respiratory questionnaire (SGRQ) total score, in comparison to usual care. Weights are from random-effects.

Figure CO 043A