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MGF 1. COPD AND TYPE 2 DIABETES: RELATIONSHIP IN THE OCCURRENCE OF EXACERBATIONS?

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Several studies have shown that type 2 Diabetes and COPD are often present in the same patient, which is probably due to the inflammatory component present in both pathologies. Although COPD and DM2 represent distinct entities, they may have a pathophysiological connection that links these 2 chronic pathologies. Analysis of the current literature on the interaction between COPD and diabetes identified key evidence supporting the existence of a complex interaction between these conditions. Thus, there are numerous mechanisms that have been proposed to contribute to the relationship between these 2 pathologies. However, there is little evidence about the lung being a target of damage caused by diabetes, as the clinical significance of this damage is unknown, mainly due to the large physiological reserve of the lung. Studies show that patients with COPD and DM have a faster disease progression, worse outcomes, as well as higher mortality and hospitalization. These patients have a higher risk of pneumonia and hospital admission to intensive care, prolonged hospital stays, increased medication consumption and mortality. The main objective of this study is to identify whether in the COPD population studied there is a relationship between the presence of diabetes and the presence of COPD exacerbations. A retrospective study was carried out in patients with COPD enrolled in a specific health facility. The inclusion criteria for the study were patients of both genders and adults, with coding in their clinical file of the problem "R90: Chronic Obstructive Pulmonary Disease" between January 1, 2019 and December 31, 2021. And who had registered in their clinical process a respiratory functional test to support the diagnosis of COPD. Although initially there were a total of 131 COPD patients diagnosed within the established time frame, only 112 were eligible for the study. Demographic and clinical variables that were obtained through consultation of the patients' clinical records (SClinico®) were recorded. These variables included: 1. Gender; 2. Age; 3. Presence of Functional Respiratory Test; 4. Presence of COPD exacerbations in the last year; 5. Diagnosis of type 2 diabetes mellitus; 6. Poor glycemic control of diabetes mellitus. After analyzing the results, it was found that the study sample is in line with current knowledge that COPD is a more prevalent disease in males (67% of the sample) and also in relation to its incidence from the 6th decade of life onwards. life, given that the median age was 70 years. In this study, the results found support the existence of this relationship, as we obtained statistically significant values between the relationship between DM and the occurrence of COPD exacerbations. However, it was not possible to demonstrate that DM patients with poor glycemic control are at increased risk of COPD exacerbation. In conclusion, there seems to be a relationship between the presence of a diagnosis of DM and the occurrence of exacerbations of COPD in patients with a diagnosis of COPD and DM, but without being related to the degree of glycemic control.

Keywords: *COPD. Type 2 diabetes. Exacerbations.*

MGF 2. QUALITY IMPROVEMENT WORK REGARDING COPD SCREENING IN SMOKERS OVER 40 YEARS OF AGE

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Introduction: Chronic Obstructive Pulmonary Disease (COPD) affects around 210 million people worldwide, being responsible for 3 million deaths. In Portugal, the prevalence of COPD reaches 14.2% of the individuals over 40 years of age, according to the BOLD study. When analyzing the population of the USF Rio de Mouro (Rio de Mouro's Family Health Unit), we found that the prevalence of patients with COPD over 40 years of age was 2.68%, considerably lower than the national prevalence. According to the 2022 GOLD guidelines, COPD should be considered and a spirometry requested, in smoker patients over 40 years of age. Thus, we propose a quality improvement work that aims to obtain a screening rate improvement (through the registration of spirometry) of at least 80%, compared to current rate (2.16%), during the period of 4 months, in smoker patients over 40 years of age.
Methods: As we intend to carry out a longitudinal epidemiological intervention study with pre- and post-intervention analysis of the technical-scientific competence of the medical team at USF Rio de Mouro, we extracted data from the MIM@UF® and SClinic® platforms

and crossed the population over 40 years of age, coded with P17 "Tobacco abuse" (1479 users) and registered spirometry (32 users). Simultaneously, we applied a questionnaire to the medical team at USF Rio de Mouro to assess the reasons for prescribing spirometry. Afterwards we presented the results obtained in the questionnaire and the extracted data and discussed with the medical team the best strategies to apply for this quality improvement.
Results: In the pre-intervention assessment, we determined that in 2021 the rate of screened users was 2.16%. Regarding the results of the questionnaire, we concluded that about 33.3% of the medical team at the USF Rio de Mouro know the national prevalence of COPD, 41.7% know the prevalence of COPD in their USF, 33.3% rarely ask for spirometry in smokers over 40 years of age and that 58.3% agree that there is current scientific evidence that supports the request of spirometry in these patients. Finally, we reached an agreement with the medical team about the improvement quality strategies to be applied, such as the use of periodic reminders to spirometry requests, motivational videos and/or fluorescent reminders.
Conclusions: Applying the quality improvement strategies and taking into account the screening rate of 2.16%, we conclude that there is room for progression to increase screening, leading to an increased number of early COPD diagnosis and, ultimately, improving the treatment and quality of life of these patients.

Keywords: *Tobacco abuse. COPD. Spirometry. Smoker. Quality improvement. Screening.*

MGF 3. SPIROMETRY IN PRIMARY HEALTH CARE

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Introduction: Spirometry is a fundamental test for the diagnosis and monitoring of various respiratory disease. A network of spirometry was created in primary health care (PHC). According to the DGS the number of active patients diagnosed with COPD has increased, however in only 32.3% of cases the diagnosis is based on spirometry. The evaluation of the spirometric results in the reality of a PHC may be useful in the awareness and future training of family doctors, in order to optimize the resource's use.
Methods: An observational study of the spirometry performed at the CSP of the Unidade local de saúde de Matosinhos was carried out. The reason for the request and the respective spirometric results were evaluated. Spirometric values were considered normal when above the lower limit of normality. For the diagnosis of COPD, the GOLD guidelines criteria was used: FEV1/FVC > 70%.
Results: A total of 158 individuals with a mean age of 57 (± 19 years) were included, 53% (n = 83) were male. Most presented smoking habits: 34% (n = 54) smokers and 24% (n = 38) ex-smokers with an average of smoking load 29 pack-years. The mean BMI was 28 kg/m^2. Of the tests requested, 75% (n = 118) were performed for diagnosis and 25% (n = 40) for surveillance of known respiratory disease. The main reasons for request were surveillance/diagnosis of COPD in 35% (n = 56) and asthma in 24.7% (n = 39) and diagnostic investigation of dyspnea (14.6%, n = 23), cough (13.3%, n = 21) and wheezing (7.6%, n = 12). In 63.9% (n = 101) of the cases, spirometry was normal. Obstruction was identified in 19.6% (n = 31), restriction in 3.2% (n = 5), mixed lung disease 2.5% (n = 4) and small airway obstruction in 10.8% (n = 12). Of the spirometry requested for COPD surveillance (n = 18), 61.1% (n = 11) had FEV1/FVC after bronchodilation < 70%, 27.8% (n = 5) normal spirometry, 5.6% (n = 1) small airway obstruction and 5.6% (n = 1) restriction. Of the spirometry tests requested for COPD screening (n = 38), the diagnosis was confirmed, according to the GOLD criteria, in 23.7% (n = 9). In patients in which the reason for requesting spirometry was surveillance/diagnosis of asthma (n = 39), 64.1% (n = 25) had normal spirometry, 15.4% (n = 6) had obstruction, 2.6% (n = 1) restriction and 15.4% (n = 6) obstruction at the level of the small airways. In the spirometry requested for investigation of respiratory symptoms, without specific diagnostic suspicion, most was normal: dyspnea (n = 23), 87% (n = 20) had normal spirometry; cough (n = 21) 76.2% (n = 16) with normal spirometry; wheezing (n = 12) 83.3% (n = 10) with normal spirometry.
Conclusions: The present study aims to recall the role of spirometry in the diagnosis of obstructive disease in PHC and to reinforce the importance of careful patient selection according to the national guidelines. The awareness of family doctors about COPD is particularly relevant with regard, above all, to its diagnosis in patients with an appropriate profile. In patients with isolated symptoms of dyspnea, cough and wheezing, without clinical suspicion of a specific respiratory disease, spirometry was normal in most cases, which raises questions about its usefulness.

Keywords: *Spirometry. Primary Health Care. Chronic obstructive pulmonary disease.*