

## Abstract

Title: Analysis of Pharmacotherapy by patients with diagnosis of COPD

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**Background:** “Chronic Obstructive Pulmonary Disease (COPD) is characterized by airflow limitation that is not fully reversible. The airflow limitation is usually both progressive and associated with an abnormal inflammatory response of the lungs to noxious particles or gases”. Tobacco smoking is the major risk factor in the development of COPD. COPD is a leading cause of morbidity and mortality worldwide.

**Aim:** 1<sup>st</sup> from the current literature to understand the nature of COPD and obtain information about the aetiopathogenesis of the disease, diagnosis options and summarize the current view of strategies for achieving the goals of treatment. 2<sup>nd</sup> in a pilot study to analyze drug therapy in COPD patients visiting a pharmacy in Greece.

**Methods:** 56 prescriptions with the diagnosis of COPD were collected during a period of 8 months from a Greek pharmacy. Information from the prescriptions with regard to COPD medications prescribed (active substances, trade names, strength, dosage scheme, pack size), patients characteristics (age and gender) and prescribing physicians characteristics (Specialty, Gender and Age) were analyzed.

**Results:** The COPD prevalence among the regular customers of the pharmacy was found to be 14,01% and being more common among men and older patients. 14% of those patients appear to suffer from COPD and Asthma at the same time. The pharmacological class of long-acting  $\beta$ 2-agonists in combination device with inhaled corticosteroids (LABA/ICs) was the most frequently prescribed (34%) followed by the long-acting muscarinic antagonists which are represented only by Tiotropium Bromide (25%). Inhaled corticosteroids and LABA account for 18% and 10% respectively among the total medicines prescribed. Short-acting bronchodilators were used very rarely. Only 20% of the prescribed corticosteroids was in the oral form, the rest was given by inhalation. Antibiotics showed up with a very low frequency rate of 2%. The pharmacological class of combination LABA/ICs seems to be the most

equally distributed among all age groups and the most frequently used among both genders. 81% of the prescribed medications were given the possibility of one month treatment by prescribing one package while the rest (19%) by two packages. 68% of the prescriptions were signed by pneumologists and 32% by general practitioners.

**Conclusion:** The pharmacological categories of LABA/ICs and LAMA were the most frequently prescribed. Pharmacotherapy found to fit with the recent COPD guidelines.

Limitations of this observational study were the lack of information regarding the clinical state of patients and marketing activities and campaigns of drug manufacturers. Also sample population of patients was small and not representative of the Greek population. The results of this pilot study suggest that it would be more appropriate to perform this study on a representative sample of Greek population.