Letter to the Editor

Chronic Obstructive Pulmonary Disease and Big Data☆

Sobre la enfermedad pulmonar obstructiva crónica y el big data

To the Editor:

We have read with interest the novel study carried out by Prof. Izquierdo et al.[1] Its results in the population with chronic obstructive pulmonary disease (COPD) in Castilla-La Mancha indicate that 10 years after the introduction of the National Strategy for COPD, important gaps unfortunately still exist in the diagnosis and management of these patients.[2] Previous clinical audits on the management of COPD in Spain were based on tedious surveys that depended on the varying interest and response of individual researchers.[3,4] The use and correct interpretation of big data should now provide almost real-time information on how and who is diagnosed and treated with COPD in Spain.

A huge amount of health information is already being digitalized and stored in administrative databases, but the text of the electronic medical record was considered unanalyzable. Big data now makes it possible to exploit this information, which should improve understanding of care processes and identify bottlenecks in order to correct errors and modify behaviors, thus improving health outcomes. One of the orphan areas of COPD is the study of severe exacerbations and the risk of readmissions, areas of interest due to their impact on disease prognosis at an individual level, on the health system in general, and on the costs of both.

The BIG COPData study,[5] led by SEPAR and Savana® (https://savanamed.com/es/) is currently underway, with the participation of France, Germany, the UK, Canada, USA, U.S., and other countries (ClinicalTrials.gov No. NCT04206098). Its objective is to identify factors associated with hospital readmissions in patients with COPD. Big COPData aims to developing a predictive model of readmissions, using Natural Language Processing (NLP) techniques and big data. This new methodology should allow for a better diagnosis of the entire healthcare process and its impact on the lives of COPD patients.

References

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