



INSIGHTS INTO MANAGEMENT OF ACUTE COPD EXACERBATION: A RETROSPECTIVE STUDY ON NONINVASIVE VENTILATION AND OXYGEN THERAPY USE

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Objective:

Chronic obstructive pulmonary disease (COPD) is a progressive lung disease with a significant morbidity and mortality that affects millions of people worldwide. The disease can lead to a wide range of respiratory symptoms including coughing, wheezing, shortness of breath and chest tightness which can significantly impact the patient quality of life. Acute exacerbations are common among COPD patients and usually result in significant symptom worsening and potentially fatal complications. The aim of this retrospective study was to investigate the clinical characteristics and treatment outcomes of patients with acute COPD exacerbation who were admitted to the hospital.



Methods:

Between February and May 2023, a retrospective study was carried out at the Department of Pulmonology, University Hospital Centre Zagreb, with the aim of investigating patients who had been diagnosed with COPD for more than six months, of any gender, aged between 47 and 86 years, who had been primarily admitted due to an exacerbation. The study used non-probability consecutive sampling to identify patients eligible for inclusion. The exacerbations were classified using the GOLD 2023 Report, with severe exacerbations defined as those requiring hospitalization or emergency room visits.

Result:

During the study period, a total of 14 patients were admitted to the hospital due to acute exacerbation. The average hospital stay for these patients was found to be 10 days with the shortest stay of 5 days and the longest being 17 days. In our patient sample, NIV was used in 5 out of 14 patients in our cohort, with an additional 2 patients being discharged with the recommendation of night-time NIV. Additionally, oxygen therapy was recommended to 13 out of 14 patients upon discharge with an average O₂ flow of 2L/min.

Conclusion:

Our study population included patients with a confirmed COPD diagnosis who presented to the emergency department with worsening dyspnea, cough and sputum production. Although this study has several limitations, including its relatively small sample size and retrospective nature, our findings contribute to the growing amount of literature on acute exacerbations of COPD. The identification of adverse outcomes and their associated factors can lead to targeted



interventions aimed at improving the care for patients with acute COPD exacerbation.