

REVIEWER'S REPORT

Manuscript No.: **IJAR-525608**

Date: 04-07-2025

Title: Study of Serum Electrolytes in Acute Exacerbation of COPD Patients

Recommendation:

Accept as it isYES.....

Accept after minor revision.....

Accept after major revision

Do not accept (*Reasons below*)

Rating	Excel.	Good	Fair	Poor
Originality			✓	
Techn. Quality		✓		
Clarity		✓		
Significance			✓	

Reviewer Name: Dr Aamina

Reviewer's Comment for Publication.

General Comments:

This manuscript presents a focused and clinically relevant observational study examining the prevalence and implications of electrolyte imbalances—specifically hyponatremia and hypokalemia—in patients with acute exacerbations of Chronic Obstructive Pulmonary Disease (AECOPD). The topic holds strong clinical significance, as such imbalances can affect patient prognosis and are often underrecognized in acute care settings.

The abstract effectively summarizes the background, objectives, methodology, results, and conclusions. The structure is clear, and the statistical findings are reported with appropriate detail, including mean values and standard deviations for serum electrolyte levels and PEFr. The demographic and clinical profile of the study population is well outlined, including high rates of rural background, male predominance, and tobacco exposure—factors relevant to COPD epidemiology.

The findings are notable for a high prevalence of both hyponatremia (92%) and hypokalemia (86%) among hospitalized AECOPD patients. The analysis of correlations between these imbalances and clinical parameters such as GOLD staging, PEFr, and duration of illness provides meaningful insights. The observation of a significant association between lower electrolyte levels and disease severity reinforces the importance of electrolyte monitoring as part of COPD management.

The introduction clearly defines COPD, establishing its pathological basis and the relevance of acute exacerbations. The reference to chronic respiratory symptoms and airflow limitation aligns with current clinical definitions and practice. The manuscript maintains a clinical tone throughout and is grounded in measurable, objective outcomes.

Overall, the manuscript contributes valuable data on an underexplored aspect of COPD exacerbation and highlights the need for early electrolyte assessment in hospital settings.

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Recommendation:

This study provides a significant clinical insight into the biochemical disturbances in AECOPD and their relevance to disease progression. It is well-structured, statistically sound, and contributes meaningfully to pulmonary and internal medicine literature. Suitable for publication in journals focusing on respiratory medicine, internal medicine, or clinical pathology.