Review Form 1.7

Journal Name:	**Journal of Advances in Medicine and Medical Research**
Manuscript Number:	**Ms_JAMMR_118990**
Title of the Manuscript:	**"STUDY OF CLINICAL PROFILE AND MICROBIOLOGY OF COMMUNITY-ACQUIRED PNEUMONIA ''**
Type of the Article	**Original Research Article**

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty'**, provided the manuscript is scientifically robust and technically sound.
To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(https://www.journaljammr.com/index.php/JAMMR/editorial-policy)

Review Form 1.7

PART 1: Review Comments

	Reviewer's comment	**Author's comment** *(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)*
Compulsory REVISION comments 1. **Is the manuscript important for scientific community?** (Please write few sentences on this manuscript) 2. **Is the title of the article suitable?** (If not please suggest an alternative title) 3. **Is the abstract of the article comprehensive?** 4. **Are subsections and structure of the manuscript appropriate?** 5. **Do you think the manuscript is scientifically correct?** 6. **Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.** **(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)**	**The article titled "STUDY OF CLINICAL PROFILE AND MICROBIOLOGY OF COMMUNITY-ACQUIRED PNEUMONIA" investigates the clinical and microbiological characteristics of community-acquired pneumonia (CAP), focusing on etiological agents, predisposing factors, and radiological presentations. The study provides valuable insights into CAP management in a developing country context. Below is a detailed critical review of the study, highlighting its strengths and areas for improvement.** **Strengths** **Relevance of the Study:** **The study addresses a critical health issue, as community-acquired pneumonia (CAP) remains a leading cause of morbidity and mortality globally, particularly in the elderly and those with comorbid conditions. The focus on CAP's clinical and microbiological profiles is highly relevant for improving diagnosis and treatment.** **Comprehensive Data Collection:** **The study includes a robust set of data collection methods, including clinical, radiological, and microbiological assessments. This comprehensive approach allows for a thorough understanding of CAP's presentation and the variety of pathogens involved.** **Use of Advanced Diagnostic Tools:** **The selective use of the BioFire FilmArray Pneumonia Panel, despite its cost, is a significant strength. This tool provides a broad pathogen detection range and higher sensitivity compared to traditional methods, which is crucial for accurate diagnosis and effective treatment.** **Diverse Patient Population:** **By including 72 patients aged over 12 years, the study captures a wide age range and diverse demographic, enhancing the generalizability of the findings. The focus on a developing country setting also provides valuable data that can inform healthcare strategies in similar contexts.** **Detailed Statistical Analysis:** **The study employs a variety of statistical methods, including the Chi-Square test, Fischer Exact test, and Odds Ratio, to analyze the data. This detailed statistical approach strengthens the validity of the results and helps identify significant associations and trends.** **Identification of Key Risk Factors:** **The study highlights important risk factors for CAP, such as hypertension, diabetes, and chronic lung diseases. Identifying these comorbidities provides crucial information for clinicians to tailor their management and prevention strategies.** **Clinical Implications:** **The findings emphasize the importance of precise diagnostic tools and tailored treatment strategies. The study's conclusions highlight the need for improved diagnostic accuracy and customized treatments, which can lead to better patient outcomes and more effective management of CAP.** **Opportunities for Improvement**	

	Sample Size: **The study's sample size of 72 patients is relatively small, which may limit the generalizability of the findings. Larger, multicenter studies are needed to validate these results and provide more comprehensive data on CAP in different populations and settings.** **Limited Scope of Pathogen Identification:** **While the use of the BioFire Panel is a strength, it was only used selectively due to cost considerations. A broader and more consistent application of this tool or similar comprehensive diagnostic panels could provide a more complete picture of the pathogen landscape in CAP.** **Geographical and Temporal Limitations:** **The study is confined to a single institution (Ruby Hall Clinic, Pune) and covers a one-year period. Expanding the study to multiple locations and extending the duration could help capture variations in CAP presentations and pathogen profiles across different regions and times.** **Lack of Detailed Follow-Up:** **The study would benefit from a detailed follow-up on patient outcomes beyond the initial treatment period. Long-term data on recovery, recurrence, and complications would provide valuable insights into the effectiveness of different treatment approaches and the impact of CAP on patient health over time.** **Impact of Prior Antibiotic Use:** **The study notes that prior antibiotic use significantly affected sputum culture results but not the BioFire test outcomes. However, it does not explore the implications of this finding in detail. A deeper analysis of how prior antibiotic use affects pathogen detection and resistance patterns would be beneficial.** **Focus on Bacterial Pathogens:** **While the study identifies both bacterial and viral pathogens, it tends to focus more on bacterial agents. A more balanced approach that equally addresses viral causes of CAP and their treatment implications would provide a more comprehensive understanding of the disease.** **Need for a Control Group:** **Including a control group of patients without CAP or with different respiratory infections could help contextualize the findings and better understand the specific characteristics of CAP compared to other conditions.** **Discussion of Radiological Findings:** **The study mentions radiological presentations but does not provide detailed analysis or correlation with clinical and microbiological data. A more thorough discussion of radiological findings and their diagnostic value would enhance the overall depth of the study.** **Broader Implications and Recommendations:** **The study could be strengthened by discussing the broader implications of the findings for public health policy and clinical practice. Specific recommendations for improving CAP management, particularly in resource-limited settings, would provide valuable guidance for healthcare providers and policymakers.** **Exploration of Prognostic Factors:** **The study mentions the investigation of severity and prognosis as secondary objectives, but these areas are not explored in depth. A detailed analysis of prognostic factors and their impact on patient outcomes would add significant value to the study.**	

Review Form 1.7

	Conclusion **The article "STUDY OF CLINICAL PROFILE AND MICROBIOLOGY OF COMMUNITY-ACQUIRED PNEUMONIA" offers important insights into the epidemiology and clinical characteristics of CAP in a developing country context. Its strengths lie in comprehensive data collection, the use of advanced diagnostic tools, and the identification of key risk factors. However, the study could benefit from a larger sample size, broader pathogen identification, detailed follow-up, and a more in-depth exploration of radiological and prognostic factors. Addressing these areas in future research could lead to more robust findings and better inform the management and prevention of CAP.**	
Minor REVISION comments 1. **Is language/English quality of the article suitable for scholarly communications?**		
Optional/General comments		

PART 2:

	Reviewer's comment	**Author's comment** *(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)*
Are there ethical issues in this manuscript?	*(If yes, Kindly please write down the ethical issues here in details)*	

Reviewer Details:

Name:	**Jonas Michel Wolf**
Department, University & Country	**Hospital Moinhos de Vento, Brazil**