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REVIEWER'S REPORT

Manuscript No.: JNHM-161

Title: Antibiotic resistance associated with bap and ompA genes in Acinetobacter baumannii isolated from respiratory infections .

Recommendation:

Accept as it is .....

Accept after minor revision.....

Accept after major revision .....

Do not accept (*Reasons below*) .....

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

Reviewer's Name: Dr. Sahil Srivastava

Detailed Reviewer's Report

The manuscript addresses an important clinical issue by evaluating the relationship between *Acinetobacter baumannii* virulence-associated genes (bap and ompA) and antimicrobial resistance in respiratory isolates. The high prevalence of these genes and the reported resistance patterns are potentially relevant to antimicrobial stewardship and infection-control strategies.

However, major revision is required because several important methodological and internal consistency issues need to be resolved.

Major Comments

1. Clarify the study population and denominator - The study initially reports 90 patients/isolates, but the gene results correspond to 74 MDR isolates (68/74 = 91.9% and 53/74 = 71.6%). The manuscript must clearly explain how 90 isolates resulted in 74 MDR isolates and specify the exact denominator used for molecular analysis.
2. Correct major antimicrobial-testing inconsistencies- The Methods lists imipenem, meropenem, amikacin, gentamicin, ciprofloxacin, and trimethoprim–sulfamethoxazole, but Table 4 includes ceftazidime and levofloxacin, which are not described in the antimicrobial-testing section. Methicillin is also listed in the Methods, which requires clarification.
3. Clarify the antimicrobial susceptibility methodology - The manuscript states that the Kirby–Bauer disk diffusion method was used but subsequently refers to Etest. The exact method used for each antimicrobial should be clearly described, including breakpoints and the applicable CLSI standard.
4. PCR methodology is incomplete - The primer table does not provide complete forward and reverse primer sequences for both genes, and the reported annealing-temperature description—"T

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− (3 × the length of primer)"—is unclear and scientifically inappropriate. Complete primer sequences, expected amplicon sizes, and validated thermal-cycling conditions should be provided.

5. Statistical analysis requires clarification- The study uses chi-square/Fisher's exact tests, but the manuscript does not provide effect measures such as odds ratios and confidence intervals. These would substantially improve interpretation of the association between gene presence and resistance.
6. Avoid causal interpretation - Detection of bap and ompA genes and their statistical association with resistance does not demonstrate that these genes directly cause antimicrobial resistance. The discussion should distinguish association from causation and avoid statements suggesting that the genes themselves "confirm" or directly produce the MDR phenotype.
7. Results and tables require reconciliation- The abstract reports resistance to six agents, while Table 4 presents a different antimicrobial panel. The authors should verify all raw data, denominators, percentages, antimicrobial names, and P-values and ensure consistency throughout the manuscript.
8. Discussion and conclusion should be moderated- The study demonstrates associations between gene carriage and resistance in the sampled isolates, but statements describing biofilm-associated genes as established drivers of MDR should be presented cautiously because biofilm formation itself was not directly measured.

Minor Comments

1. The manuscript requires substantial English-language and grammatical editing.
2. The Introduction contains several awkward or scientifically unclear sentences and should be professionally revised.
3. The terminology "MDR" should follow a clearly stated standardized definition.
4. Table titles, gene nomenclature, antimicrobial names, spacing, and statistical notation should be standardized.
5. The reference list contains a duplicate citation: Mendes et al. (2023) appears as references 6 and 10, and Merli et al. (2023) appears as references 7 and 11.

Final Recommendation - Accept after major revision.