Jundishapur Journal of Microbiology
Volume 18 · Issue 1 · e153574

OPEN PEER REVIEW

Methodology Comparison of Multiple Phenotypic and Genotypic Tests in Carbapenem-Resistant *Klebsiella pneumoniae*

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SUBMITTED	REVISED	ACCEPTED	DOI
21 Aug 2024	9 Jan 2025	21 Jan 2025	10.5812/jjm-153574

About this report

This open peer review (OPR) report shows the public comments made on this article during peer review, by the reviewers, the associate editor and the editor-in-chief, for every revision round, together with the authors' replies. Comments appear only with the consent of the people who wrote them. Reviewers who chose to sign their report are named; the others are shown as "Referee". Comments are edited for language only, and confidential remarks to the editors are not included.

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1 Original submission

1 comment · 31 Oct 2024

Referee 1 Reviewer

MAJOR REVISION 31 Oct 2024

The manuscript appears to be lacking in fluency. All parts of the manuscript need to be rephrased.

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Revision 1

AUTHORS' RESPONSE TO REVIEWERS

Authors' reply to reviewers

The next pages contain the authors' point-by-point reply to the comments of this revision round, as submitted with the revised manuscript. It is published as the authors wrote it.

Reviewers' Comments:

Reviewer 1:

The manuscript appears to be lacking in fluency and may have been written with the assistance of artificial intelligence. All parts of the manuscript need to be rephrased.

Answer: We have checked and revised the language of the manuscript and would like you to review our manuscript again.

Reviewer 2:

1. “In this investigation, a total of 88 strains of CRKP were scrutinized, among 170 which 85 strains exhibited positive PCR results”

Please specify how the 88 strains of CRKP were approved?

Answer: We mentioned the extraction of 88 CRKP strains in the Materials and methods section. “The identification of all strains was carried out utilizing the Vitek-2 automated bacterial identification and antimicrobial susceptibility testing system (BioMerieux, France), with confirmation performed using the K-B method. Carbapenem-resistant Klebsiella pneumoniae was defined as exhibiting resistance to one or more of the following: imipenem, meropenem, and ertapenem. A total of 88 strains were screened, with quality control strains comprising ATCC25922, ATCC BAA-1705, and ATCC BAA-706.”. Line 92.

2. What is the criterion of confirmation by PCR method? Which gene in Tab1 should be confirmed?

Answer: Note that the PCR assay in question is not looking at a specific gene. The genes we list in Table 1 are the five carbapenemase genes, and if we detect blaKPC in strain A, that means that strain A carries blaKPC.

3. The gold standard method for determining the sensitivity and specificity was the PCR method. So first, the results of this method should be determined

Answer: Yes, result 3.1 is the result of PCR. Line 190.

4. Determine the positive and negative control in Fig.1

Answer: We have added injections to the legend, please check. Line 205

5. Specify the characteristics of the ladder used

Answer: I'm sorry, but we don't have a clear understanding of what you mean by “ladder”. Perhaps you are referring to each method of examination? We have a detailed comparison in Table 3 for you to check. If I am wrong, I hope you can give me clearer instructions, thank you very much. Line 254.

6. In what part of the results is Fig.2 used?

Answer: Figure 2 illustrates the sequencing of blaKPC, which we cite in Result 3.1. Line 205.

7. Can you use chi-square test to show the overall results?

Answer: We redesigned the main results of the manuscript (Table 2) and ask you to check them. Line 238.

EIC Decision:

Thank you for submitting your manuscript to JJM. I have completed the review of your manuscript and a summary is appended below (Pleases find attached files). The reviewers recommend the reconsideration of your paper following major revision. I

invite you to resubmit your manuscript after addressing all reviewer comments.
Please see attached reviewer’s files.
1. Please answer point by point to the reviewer's comments on a separate sheet under WORD format and write your modifications in the revised version (WORD format) in colored or highlighted letters.
Answer: We have completed revisions of the manuscript in accordance with the review comments and hope that you will continue to review our manuscript.
2. Your answers to reviewers’ queries are not only for the Editorial Board but for the readers and should be included, when appropriate, in the manuscript for improvement and a better understanding. Moreover, add continuous line numbers for text and put suitable line numbers for each response.
Answer: Thanks for the heads up, we will add responses to certain comments to the manuscript as well. In addition, we have added line numbers to the text as you requested.
3. When resubmitting your manuscript, please carefully consider all issues mentioned in the reviewers' comments, outline every change made a point by point, and provide suitable rebuttals for any comments not addressed.
Answer: We have completed revising and responding to all review comments.
4. In addition, JJM INSTRUCTION is attached to the mail, please find it.
Answer: Copy that. Thank you.
5. Please add the ORCID number into you and your collages account, then automatically appear in your published papers in JJM both in HTML and pdf. Pleases follow the below link for the process. https://sites.kowsarpub.com/jjm/knowledgebase/category/tree.html#orcid.html
Answer: We have added ORCID numbers.

Recommendations for Improvement
- Clarify Study Design: Specify whether this is a prospective or retrospective study.
Answer: This is a retrospective analysis and we have added notes.
- Detail Statistical Analysis: Include the statistical methods used to compare the diagnostic tests, including how missing data were handled.
Answer: We added missing statistical analyses.
- Provide Flow Diagram: A flow diagram illustrating the selection of CRKP strains for the study would enhance clarity.
Answer: Okay, we've added a flowchart to the Materials and methods (new Figure 1).
- Discuss Limitations: A section discussing the limitations of the study, including potential biases and generalizability of the findings, should be included.
Answer: We added the limitations of the study at the end of the discussion. Line 311.

Conclusion
The study provides valuable insights into the diagnostic accuracy of various methods for detecting CRKP. However, to meet the reporting standards fully, additional details as outlined in the checklists should be incorporated into the manuscript. This will enhance the study's transparency and reproducibility, ultimately benefiting clinical

practice in managing CRKP infections.

Answer: Thank you, we have finished revising the manuscript as you suggested, please keep checking back.

Add ORCID number for all authors in your account

Answer: We have added ORCIDs for all authors.

General comments

Use 12 Times New Roman in through text with 2 lines spacing.

Answer: We have adjusted the formatting of the manuscript as requested.

Arrange references numbers in text based on JJM instruction as ().

Answer: We have revised the formatting of the references as requested.

Correct all punctuations.

Answer: We have scrutinized the entire text and corrected all incorrect punctuation.

Divide all text into suitable paragraphs, paragraphs should be written shorter,
if those are too long (for example not all background in one paragraph).

Answer: Thanks to your reminder, we have revised the longer passages in the manuscript.

When using the abbreviated form, the first time add the full name (both in the abstract and introduction sections) then abbreviate it.

Answer: Okay, we checked the manuscript to make sure all the abbreviations were defined when they first appeared.

Start new sentences with full names.

Answer: We have completed the changes as requested.

The organism name (Aspergillus niger), genus name (Candida), family name (Actinomycetaceae) of all microorganisms) must be italicized.

Answer: Okay, all microbiology names are already in italicized form.

Abstract (No more than 250 words)

Subheading: Background, Objectives, Methods, Results, and Conclusions

Choose all keywords based on ‘’mesh’’ .

Answer: We have modified the abstract to be structured. In addition, we have revised the keywords of the manuscript according to MeSH.

1. Background:

No more than1.5 pages.

Answer: We have completed the revision.

2. Objectives:

Objectives of the study must be added at the end of the Background.

Answer: We have completed the revision.

3. Methods:

Subheading

Add voucher code and deposited herbarium names when using plant materials.

Subheading "Methods" including sampling, tests and …

Answer: We have added supplier information for all instruments and reagents.

Add company and country names of all used materials, kits, culture media, primers,

chemical compounds and so.

Answer: Okay, we added that information.

Subheading **"Statistical analysis"**: In this section, you can add all statistical methods/analysis and software that used in this study.

Answer: We have added missing statistical analyses.

4. Results:

Doesn't present results in similar forms (only one form; text or table or figure or Graph).

Answer: Thanks for the reminder of the diversity of results in the manuscript so far.

Put high-quality figures in manuscript results.

Answer: We have inserted clear figures in the manuscript.

Avoid routine figures.

Answer: Thanks for the heads up, the figures in the manuscript currently fit the bill.

Long tables and figures put in "Supplementary materials".

Answer: There are currently no long tables and figures in the manuscript.

5. Discussion:

A maximum of two pages is suitable for this section.

Answer: Okay, we've narrowed down the discussion.

5.1. Conclusions:

Add the final conclusion as one paragraph (2-5 lines) at the end of the discussion.

Answer: We have added a concluding paragraph.

Acknowledgments:

Footnote:

Authors' Contributions

Funding/Support

Conflict of Interest

Ethics Statement: Add the University Ethics Committee code or Clinical Trial Registry Number in this section. When animal models are used in your project, please add Animal ethics approval.

Consent form information.

Answer: We have added this information.

References:

Use EndNote for references as available in JJM instruction (Click here for download: **"Brieflands Style" for Endnote**for JJM).

Add DOI or PMID, or both when applicable for each reference.

Answer: We have completed the revision of the reference format.

2 Revision 1

0 comments

No public comments in this round.