

Review of: "Meropenem Usage Assessment amid the Antibiotic Resistance Crisis: A Comprehensive Analysis in a Tertiary Care Hospital in Pakistan"

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Potential competing interests: No potential competing interests to declare.

The study provides valuable insights into meropenem prescribing patterns and adherence to guidelines in a tertiary care hospital in Pakistan, highlighting critical areas for improvement. Its detailed analysis of empirical prescribing practices and patient education contributes significantly to understanding and addressing antibiotic stewardship challenges in a local context. The following points are suggested areas for improvement:

Abstract

The abstract should clearly articulate the global significance of antibiotic resistance and the role of meropenem in addressing this issue. Ensure that the methods section specifies the sampling method used (convenience sampling) and provides details on statistical analysis, including how missing data were managed and potential biases were adjusted for. Results should be summarized concisely, highlighting key findings and their clinical relevance. The conclusion must offer actionable recommendations for improving antibiotic stewardship practices and patient education.

Introduction

The introduction should emphasize the global impact of antibiotic resistance and its implications for public health, providing specific examples of how resistance to meropenem affects treatment outcomes. It should justify the need for the study by identifying gaps in current research and explaining the importance of examining meropenem prescribing practices in Pakistan. Clearly outline the study's objectives and research questions to guide the reader on what the study aims to address.

Methods

The study design and population section should clearly describe the cross-sectional nature of the study, including the time frame and details of ethical approval. Inclusion and exclusion criteria should be justified, particularly the rationale for excluding intensive care unit patients. The sample size calculation should include details on the WHO sample size calculator's parameters. Data collection methods need to be elaborated upon, including how variables were measured and potential biases in data collection. Additionally, the statistical analysis section should provide information on the methods used, including handling of missing data and adjustments for biases.

Results

The results section should present demographic data with clarity, noting any significant variations and their implications. The section on prescription patterns should detail the extent of empirical prescribing, accuracy of initial diagnoses, and discrepancies between culture results and treatment durations. Describe patient monitoring processes and how they influenced treatment adjustments, including observed trends. Ensure that all figures are correctly referenced and accompanied by detailed captions that explain their relevance to the results.

Discussion

In the discussion, a thorough comparative analysis with other studies or hospitals should be provided, emphasizing similarities and differences in prescribing practices and outcomes. The implications of the findings for antibiotic stewardship and public health should be discussed, including potential interventions. Address any study limitations, such as sample size, generalizability, or methodological constraints. Offer specific recommendations for improving prescribing practices, diagnostics, and patient education based on the study's findings. Additionally, suggest areas for future research that could build on the study's results.

Conclusion

The conclusion should summarize the main findings of the study clearly and concisely. It should offer concrete recommendations for practice, policy, and further research to address the identified issues. Emphasize the need for improved antibiotic stewardship and patient education.

Ethical Approval and Consent

Clearly state the ethical review board's approval details, ensuring compliance with relevant ethical guidelines. Confirm that informed consent was obtained from all participants and that personal identifiers were omitted to maintain confidentiality.

References

Ensure that all references are up-to-date and relevant to the study's focus. Consider including recent studies or guidelines related to meropenem and antibiotic resistance to provide a comprehensive background.