

Review of: "A Systematic Review of Antibiotic Use in Humans in Nigeria and Its Potential Contribution to Rising Antimicrobial Resistance"

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Potential competing interests: No potential competing interests to declare.

Title and Abstract

Title: The title of the article accurately reflects the content and focus of the study, providing a clear indication of what the reader can expect.

Abstract: The abstract effectively summarizes the key components of the systematic review, including the background, objectives, methods, results, and conclusions. It is concise and informative, giving a clear overview of the study's scope and significance.

Introduction

Strengths:

- The introduction sets a strong context by discussing the global and national significance of antibiotic use and resistance.
- It provides a historical perspective on antibiotic development and trends in usage, which is both informative and relevant.
- The objectives of the systematic review are clearly stated, establishing a solid rationale for the study.

Suggestions for Improvement:

- The introduction could benefit from more recent data or references to underscore the current urgency of the AMR crisis.
- Including a brief mention of previous systematic reviews or major studies on this topic could help situate the current study within the broader research landscape.

Methods

Strengths:

- The methodology section is detailed and transparent, describing the search strategy, inclusion and exclusion criteria,

and data extraction process comprehensively.

- The use of multiple databases (PubMed and AJOL) and specific search terms ensures a thorough literature search.
- Adherence to the PRISMA statement for reporting enhances the credibility and structure of the review.

Suggestions for Improvement:

- Expanding the range of databases and including grey literature could provide a more exhaustive data set.
- A brief explanation of the rationale behind the chosen time frame and geographic focus would be helpful.
- More details on how data quality and risk of bias were assessed in the included studies would strengthen the methodological rigor.

Results

Strengths:

- The results are well-organized and clearly presented, with effective use of figures and tables to enhance readability and comprehension.
- The systematic review process is summarized clearly (Figure 2), and the geographic distribution of studies is informative.
- Detailed reporting on antibiotic prescription rates, common antibiotics used, and factors contributing to irrational use provides a comprehensive overview.

Suggestions for Improvement:

- Including more detailed information on the quality and limitations of the included studies would add depth to the results.
- A more explicit connection between the findings and the specific geographic zones could provide nuanced insights.
- Highlighting any notable trends or changes over time in antibiotic use and resistance within Nigeria would be valuable.

Discussion

Strengths:

- The discussion effectively interprets the findings, connecting them to broader issues of antibiotic resistance and healthcare practices in Nigeria.
- The identification of key drivers of irrational antibiotic use is insightful and well-articulated.
- The discussion is balanced, acknowledging the study's limitations and suggesting areas for future research.

Suggestions for Improvement:

- The discussion could be enhanced by comparing the findings with those from other similar settings or countries to provide a comparative perspective.
- Including more specific recommendations for policy and practice based on the findings would increase the practical

relevance of the study.

- A more detailed exploration of the potential barriers to implementing recommended interventions would be beneficial.

Conclusion

Strengths:

- The conclusion succinctly summarizes the main findings and their implications, reinforcing the study's significance.
- It effectively highlights the need for targeted interventions to address irrational antibiotic use and resistance in Nigeria.

Suggestions for Improvement:

- Providing a brief summary of the key recommendations for stakeholders, including policymakers, healthcare providers, and researchers, would be useful.
- Emphasizing the potential impact of the suggested interventions on public health outcomes could strengthen the conclusion.

Overall Assessment

This systematic review provides a comprehensive and well-structured analysis of antibiotic use and resistance in Nigeria. It offers valuable insights into the factors driving irrational antibiotic use and highlights areas for intervention. The study is methodologically sound, with transparent reporting and thorough data analysis. With some minor revisions to enhance clarity, depth, and practical relevance, this article has the potential to make a significant contribution to the field of antibiotic resistance research.

Recommendation:

- **Major Revision:** While the study is strong overall, addressing the suggestions for improvement will enhance its rigor, comprehensiveness, and impact.