

Peer Review

Review of: "Antimicrobial Resistance Patterns of Foodborne Bacterial Isolates from HIV/AIDS Patients in Lusaka, Zambia"

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General comments

The manuscript addresses a timely and relevant topic: antimicrobial resistance (AMR) of bacterial isolates from food of HIV/AIDS patients in Zambia. This topic is of great importance, especially in African countries where both foodborne diseases and HIV/AIDS are major public health challenges. A well-structured investigation of AMR profiles in such a specific population could provide valuable insights for public health strategies and clinical interventions.

However, the current version of the manuscript has several critical shortcomings that must be addressed before re-review for publication. The manuscript lacks the necessary socio-demographic data of the studied population, which is essential for a correct interpretation and distribution of the results. In addition, the manuscript lacks structural coherence, clarity in methodology, and sufficient depth in data interpretation. Most importantly, the content does not adequately reflect the focus suggested by the title—namely, a representative overview of AMR patterns in foodborne pathogens relevant to HIV/AIDS patients in a specific area.

In addition, the manuscript lacks pagination, which complicates the review process. It is strongly recommended to include page numbers in the revised version to facilitate accurate referencing.

Special comments

Introduction

The introduction provides a general overview but lacks a clear and logical connection between the main topics: foodborne diseases, HIV/AIDS, and the regional (African) context. The integration of these

elements is weak. In addition, references to important studies (currently under discussion) would be better placed here. The introduction should better define the scope of the study and emphasize the relevance of the further mentioned 15 bacterial species (?) studied in relation to foodborne diseases in immunocompromised populations.

Materials and methods

The section on sociodemographic characteristics is insufficient and should be revised following the approach of the study by Wolde et al. (Antibiotics 2024, doi: 10.3390/antibiotics13010093 [\[1\]](#)). Detailed statistical information must be presented in advance and must not be derived from figures or tables. The manuscript states that 54 stool samples were collected, whereas Table 4 states that only 36 individuals were sampled—this discrepancy needs to be clarified.

In addition, a geographical map with the exact sampling locations and corresponding regional data (e.g., population density, HIV/AIDS prevalence) would greatly improve the clarity of the context. The current naming of locations in Figure 2 (e.g., “6, 10 and 15 miles”) is ambiguous and should be clarified.

The microbiological identification procedures are inadequately described. The authors need to specify the methodology used for bacterial identification (e.g., lactose fermenter?, biochemical profiling) and clarify whether isolates were classified to species or genus level. Vague statements such as “results were recorded” should be replaced by precise microbiological technical descriptions.

Results

Several results are presented redundantly. For example, Figure 1 and Table 1 significantly overlap. The frequency of occurrence of *E. coli* is inconsistently reported (27.30%, 27.27%, etc.)—such discrepancies need to be corrected. Captions should be informative and include the number of isolates per species and the origin of the samples. Figure 1 should be revised to clearly show the n-values (from Table 1).

Crucially, the manuscript should not lack information on whether multiple isolates were obtained from a single patient/sample. If this is the case, their number and AMR/MDR status should be indicated. This would add considerable depth to the manuscript.

Tables 2 and 3 could be merged as the current split appears unnecessary. Also, the definitions of clinical sources (AIDC = outpatient, wards = inpatient) should be explained in methods section and not first in Table 4.

Discussion

The discussion is superficial and lacks a critical comparison with regional studies. The authors should

explain the population structure and the sampling approaches used in the compared studies in more detail. Vague statements such as the recommendation to sequence *S. aureus* for outbreak analysis are not supported by the current study and should be deleted unless relevant data are included.

Conclusion

Once the manuscript is restructured and all data are clearly presented, the conclusion should be rewritten to reflect the actual findings and their implications.

Additional Issues

Inconsistent use of abbreviations: The manuscript starts with MDR but later uses AMR. Consistency is required here.

The headings and captions are generally not very informative and should be revised. See the example in the manuscript by Wolde et al.

There are several typos and formatting issues (e.g. inconsistent bacterial names in Figure 1; different citation styles; nitrofurantoin is not mentioned in the methods although it is listed in the results; Table 4 has too many columns without the content).

References

1. [^]Deneke Wolde, Tadesse Eguale, Haile Alemayehu, Girmay Medhin, et al. (2024). Antimicrobial Susceptibility and Characterization of Extended-Spectrum β -Lactamase-Producing *Escherichia coli* Isolated from Stools of Primary Healthcare Patients in Ethiopia. *Antibiotics*, vol. 13 (1), 93. doi:10.3390/antibiotics13010093.

Declarations

Potential competing interests: No potential competing interests to declare.