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Bridging the gaps: A scoping review of Lassa fever vaccine research in sub-saharan Africa

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Introduction

Sub-Saharan Africa continues to face Lassa fever as a major public health issue due to its high morbidity and mortality in endemic countries such as Nigeria, Sierra Leone, and Liberia. Even with decades of research, there is no licensed Lassa fever vaccine for human use. The purpose of this scoping review was to examine Lassa fever vaccine research across sub-Saharan Africa to identify existing knowledge gaps and determine future research priorities.

Methods

We performed a scoping review that was based on Arksey and O'Malley's framework. The research included English-language studies from PubMed, Scopus, and Web of Science published between 2000 and 2024. The search terms Lassa fever, vaccine, Lassa virus, and sub-Saharan Africa guided the selection of studies, which included preclinical and clinical vaccine trials as well as immunological and policy research. Data were extracted and organized to reveal key findings according to research focus, country of origin, and development stage.

Results

Out of 107 studies identified, only 32 fulfilled the inclusion criteria. Majority of the studies were preclinical studies, while clinical trial phases I and II were very few. There was no study on phase III trial. The majority of studies were in Nigeria and Sierra Leone and they showed significant gaps in vaccine acceptance and community engagement. There was scarce collaboration between local institutions and global partners which frequently obstructed translational research advancement.

Conclusion

Vaccine development for Lassa fever throughout sub-Saharan Africa is still at its primary stages despite significant progress. Immediate funding is essential for advancing clinical trials and creating both effective policies and community readiness plans. Stronger regional research capacity alongside collaboration and continuous global funding will be necessary to fill these existing gaps.