

Clinical and epidemiological characteristics of confirmed Lassa fever cases in Ebonyi State, Nigeria: A case series analysis

Igbodo Gordon^{1,2,&}, Chika-Igwenyi Nneka³, Oluwole Temitope², Umahi Chukwu³, Ajayi Nnennaya³, Nwambeke Ogbonna⁴, Ehiakhamen Odianosen¹, Olugbade Titilope², Elizabeth Adedire²

¹Nigeria Centre for Disease Control and Prevention (NCDC), Abuja, Nigeria, ²Nigeria Field Epidemiology and Laboratory Training Programme (NFELTP), ³Alex Ekwueme Federal Teaching Hospital, Ebonyi State, Nigeria, ⁴Ebonyi State Ministry of Health, Abakaliki, Ebonyi State, Nigeria

&Corresponding author: Igbodo Gordon, Nigeria Centre for Disease Control and Prevention (NCDC), Abuja, Nigeria, **Email:** gordon.igbodo@ncdc.gov.ng

Citation: Igbodo Gordon et al., Clinical and epidemiological characteristics of confirmed Lassa fever cases in Ebonyi State, Nigeria: A case series analysis. *Journal of Interventional Epidemiology and Public Health*. 2025;8(Conf Proc5):00249.

DOI: <https://doi.org/10.37432/JIEPH-CONFPRO5-00249>

LINK: <https://afenet-journal.org/clinical-and-epidemiological-characteristics-of-confirmed-lassa-fever-cases-in-ebonyi-state-nigeria-a-case-series-analysis/>

Received: 31/05/2025 **Accepted:** 09/07/2025 **Published:** 05/08/2025

Keywords: Lassa fever, Nigeria, Case series, outbreak response

This is part of the proceedings of the ECOWAS 2nd Lassa fever International Conference in Abidjan, September 8 – 11, 2025

© Igbodo Gordon et al. *Journal of Interventional Epidemiology and Public Health*. This is an Open Access article distributed under the terms of the Creative Commons Attribution International 4.0 License (<https://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Introduction

Lassa fever (LF) is a viral haemorrhagic illness endemic in West Africa and a persistent public health threat in Nigeria. Ebonyi State is a high-burden hotspot, with repeated seasonal outbreaks and high case fatality. Despite improved laboratory diagnostics, challenges in early case recognition, misdiagnosis as malaria, especially at the lower facilities, and delays in care persist. This study aims to describe the clinical, epidemiological, and outcome of confirmed LF cases identified during the 2024/2025 outbreak in Ebonyi State.

Methods

We conducted a retrospective-prospective case series study using data from ten (10) laboratory-confirmed LF cases reported between December 2024 and February 2025. Data sources included standardized outbreak investigation forms, hospital records, and direct interviews with patients or relatives. Information collected included demographics, clinical symptoms, exposure history, treatment received, and outcome. Descriptive analysis was performed and supplemented by narrative case-level insights.

Results

Ten confirmed cases were documented: median age was 26 years (range 2–45); Male 6[60%], female 4[40%]. Three cases (30%) were children under 10. Four patients (40%) died. All fatalities had late presentation (≥ 7 days) or severe complications, including acute kidney injury and bleeding. Three cases were co-infected with malaria. One child died within 30 minutes of arrival at the facility. Another patient, a young adult from a non-endemic state, experienced diagnostic delays across three health facilities. One patient was brought under police escort due to suspected stigma. Only 60% of cases had complete outcome documentation, highlighting follow-up gaps during outbreaks.

Conclusion

This case series highlights the consequences of diagnostic delays, co-infections, and fragmented care pathways in LF outbreaks. Early suspicion/referral, dual malaria/Lassa testing, and pediatric-specific response strategies are urgently needed. Strengthening surveillance can reduce mortality and improve outcomes in endemic states like Ebonyi.