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Emergence and Re-emergence of Lassa fever Cases in Bauchi State, Northeastern Nigeria, 2012 - 2021

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ABSTRACT

Background: Bauchi state has recorded seasonal outbreaks of Lassa fever (L.F) with increasing magnitudes, widening geographical spread and worsening morbidity and mortality since 2012. Another outbreak of LF was declared in the state on the 24th of October, 2020. We investigated the outbreak to conduct its epidemiologic characterization in the state between October, 2020 and May, 2021.

Methods: We conducted active case searches for LF, reviewed hospital and mortuary records, case investigation forms, line-listed and followed up contacts, collected blood samples from suspected and high-risk cases for laboratory diagnosis. State-wide verbal autopsy, environmental assessments and risk analysis were also performed. We defined a suspected case as any person working or living within the affected LGAs and environs with fever of 38.0 C, not responding to usual anti-malarial or antibiotics within 24-72 hours with or without hemorrhagic symptoms, travel history, or contact with a known case between October, 2020 and May, 2021. A confirmed case was defined as any suspected case with laboratory confirmation (positive PCR and/or IgM antibody). We calculated frequencies/proportions and associations.

Results: Of 108 line-listed suspected cases, 29 were PCR-confirmed with LF (A.R.= 26.9%) with a case fatality rate (CFR) of 33.3%. The median age of positive cases was 32 years (range: 0-70 years) and the majority, 20(68.9%), were females. Cases are now being reported from other parts of the state 11(37.9%), with Toro LGA, in Bauchi South Senatorial zone accounting for most of the confirmed cases 12(41.4%) and mortalities.

Conclusions: The L.F outbreak in Bauchi state was characterized by changing geographical spread and a high CFR. We Intensified risk communication and social mobilization activities to increase case detection and isolation. We recommended strengthening of the state's surveillance system, development of state Emergency Preparedness & Response Plan (EPR), and implementations of preventive strategies.

Key words: Lassa fever, outbreak investigation, response, mortality, Bauchi