

Alarm sounded over Lassa fever resurgence

The first six weeks of 2019 brought diagnosis of more than a third of the total number of Lassa cases diagnosed in 2018. Bryan Pearson and Chibuike Alagboso report

With five countries in Western Africa reporting outbreaks of Lassa fever, the World Health Organization (WHO) has scaled up its efforts to support the region's response to the disease.

While these outbreaks are occurring during the Lassa fever season in countries where the disease is endemic, the speed of escalation is of concern.

The largest outbreak thus far has affected 16 states in Nigeria. The Nigeria Centre for Disease Control (NCDC) declared an outbreak of Lassa fever on 22 January 2019. The 213 confirmed cases to date, including 42 deaths, mark a significant increase – already a third of the total cases for all of last year, when Nigeria experienced its worst outbreak of Lassa fever. Four health workers have been infected so far in this latest outbreak.

In Nigeria, WHO is scaling up its efforts to support the Federal authorities, NCDC and the affected Nigerian states in responding to the outbreak. An important focus is on early detection and confirmation of suspected cases, providing optimal supportive care and ensuring infection prevention and control measures in designated health-care facilities in the affected states. WHO has intensified its technical assistance and is supporting coordination, enhanced surveillance, epidemiological analysis and risk communication. WHO is also mobilising experts to support case management and infection prevention and control.

A total of 12 cases have been confirmed to date in Benin, Guinea, Liberia and Togo, including two deaths, with more suspected cases being investigated. WHO is assisting health authorities in these countries with contact tracing and providing medical and non-medical supplies and technical and financial resources as needed for case management, risk communication and logistics.

'We are concerned by the high number of cases so early in the Lassa fever season, which is expected to last another four more months,' said Dr Ibrahima Socé Fall, Regional Emergencies Director at WHO Regional Office for Africa.

WHO has set up a regional coordination mechanism for countries to report any suspected case of Lassa fever to expedite the flow of timely information and to assess the situation, recommend actions and help organise assistance. WHO has also reached out to the six other at-risk countries – Burkina Faso, Cameroon, Ghana, Mali,

Niger and Sierra Leone – and is supporting prevention and readiness activities as needed.

Lassa fever is an acute viral haemorrhagic illness that occurs predominantly in West Africa, after human exposure to the urine or faeces of infected *Mastomys* rats. More than 80% of Lassa fever cases are rodent-to-human transmission. Person-to-person transmission occurs in both community and health-care settings.

Prevention of Lassa fever relies on promoting good 'community hygiene' to discourage rodents from entering homes by storing grain and other foodstuffs in rodent-proof containers, disposing of garbage far from the home, maintaining clean households, keeping cats and the safe handling of anyone who may have died of the disease. In health-care settings, health-care workers should always apply standard infection prevention and control precautions when caring for patients.

50 years ago, Lassa fever was detected in a small northeastern town in Nigeria called Lassa after an American missionary worker died from an unexplained illness. Little did the residents know that 50 years later their name would be making global health headlines. Much more is known about viral haemorrhagic fevers today, but a vaccine is still distant. However, strong progress is reported in the field of genomics, making it easier to understand the disease history and possible mutation patterns.

An international conference was convened by NCDC in Abuja in January 2019. In part it was held to commemorate the 50th anniversary of its identification, and in part as a concerted attempt to address the resurgence of the disease in 2018. Curated by Dr Chikwe Ihekweazu, Executive Director of NCDC the meeting gathered delegates to network and share best practice.

Keynote speaker, Virologist Prof Oyewale Tomori (who received a lifetime achievement award) called for health systems strengthening and investment in indigenous capacities. Key institutions such as the Institute of Lassa fever located inside the Irrua Specialist Teaching hospital in Edo State, one of the Nigerian states where the virus is endemic; and The African Center of Excellence for Genomics of Infectious Diseases (ACEGID) located at Redeemer's University in Osun State, demonstrated their leadership in the sector, but there remains significant urgency, to fully understand the pathogen's involved. Dr Richard Hatchett, CEO of the Norwegian HQ'd Coalition for Epidemic Preparedness Innovations (CEPI) predicted that a vaccine was not too far away, but also called for more institutional support to assist with its development.

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