



## SURVEILLANCE REPORT

Annual Epidemiological Report for 2016

# Lassa fever

### Key facts

- For 2016, EU/EEA countries reported three cases of Lassa fever. Germany reported two cases, and Sweden reported one case.
- These were the first Lassa fever cases reported by EU/EEA countries since 2009 when two cases were reported by the United Kingdom.

### Methods

This report is based on data for 2016 retrieved from The European Surveillance System (TESSy) on 4 April 2018. TESSy is a system for the collection, analysis and dissemination of data on communicable diseases. For a detailed description of methods used to produce this report, please refer to the *Methods* chapter [1].

An overview of the national surveillance systems is available online [2].

A subset of the data used for this report is available through ECDC's online *Surveillance atlas of infectious diseases* [3].

For 2016, 23 EU/EEA countries reported case-based data (Bulgaria, Croatia, Denmark, Iceland, Liechtenstein, Malta, the Netherlands and Portugal did not report). Fourteen countries used the EU case definition, four countries (the Czech Republic, Germany, Italy and the United Kingdom) used an alternative case definition, and five countries (Belgium, Cyprus, Finland, France and Ireland) did not specify the case definition they used. Reporting is compulsory in 21 countries, 'not specified' in Cyprus and voluntary in the United Kingdom. Surveillance is comprehensive ('not specified' in Cyprus) and mostly passive ('not specified' in Cyprus). The Czech Republic, Slovakia, and the United Kingdom conduct active disease surveillance.

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## Epidemiology

For 2016, EU/EEA countries reported three cases of Lassa fever including one death. Germany reported two male cases, and Sweden reported one female case. These were the first Lassa fever cases reported by EU/EEA countries since 2009 when the United Kingdom reported two cases imported from Nigeria [4] and Mali [5].

## Outbreaks and other threats

A 46-year-old male US healthcare professional was evacuated from Togo to Germany where he was admitted to Cologne University Hospital with suspected malaria and subsequently died [6,7]. The body was transferred to a mortuary; six days later Lassa fever infection was confirmed. Forty-five contacts, including 33 staff at Cologne University Hospital, were placed under domestic quarantine. A member of the company preparing the corpse for flight repatriation reportedly had flu-like symptoms before handling the corpse but stated that he had had no contact with bodily fluids while handling the corpse. A first test was negative for Lassa fever infection. Four days later he developed symptoms, and Lassa fever infection was laboratory-confirmed.

The case reported by Sweden was a 72-year-old woman with a history of staying in the countryside in Liberia for six weeks [8]. Late diagnosis due to unspecific primary symptoms resulted in 118 healthcare workers exposed to the patient, but none of them became infected.

## Discussion

Lassa fever is endemic in many parts of West Africa (particularly Nigeria, Guinea, Liberia and Sierra Leone) and usually causes seasonal outbreaks from December to March. In 2016, the Lassa fever 'season' lasted longer and generated more cases and fatal outcomes than expected. From November 2015 to May 2016, Benin, Liberia, Nigeria, Sierra Leone, and Togo reported more than 300 cases and 167 deaths [9]. The cases reported by EU/EEA countries for 2016 were related to these large outbreaks.

The three cases in 2016 illustrate the importance of an accurate travel history for narrowing down the range of possible diagnoses. Provisional diagnosis supported by appropriate laboratory tests is a critical step in arriving at the final diagnosis, and prompt treatment in an isolation unit with proper personal protective equipment is essential to avoid nosocomial infections of healthcare workers.

## Public health implications

The diagnosis of Lassa fever should be considered in febrile patients returning from areas where Lassa fever is endemic. Primary transmission of Lassa virus from its rodent host to humans can be prevented by avoiding contact with *Mastomys* rodents in Lassa-virus-endemic regions [10]. Healthcare workers caring for patients with suspected Lassa fever should apply infection control measures to prevent direct contact with the patient's blood and bodily fluids.

## References

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