

SURVEILLANCE REPORT

Annual Epidemiological Report for 2016

Rabies

Key facts

- For 2016, no cases of rabies were reported in EU/EEA countries.

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].

In 2016, 29 EU/EEA countries reported case-based data (Liechtenstein and Malta did not report). Twenty-three countries used the EU case definition, three countries used an alternative case definition (Denmark, Germany and Italy) and three countries did not specify the case definition they used (Belgium, Finland and France). Reporting is compulsory in 27 countries, voluntary in Belgium and 'other' in the United Kingdom. Surveillance is comprehensive in all reporting countries and mostly passive. The Czech Republic, Slovakia and the United Kingdom conduct active disease surveillance.

Epidemiology

For 2016, no cases of rabies were reported in EU/EEA countries.

For 2012, two cases were reported among European residents, a travel-associated case by the UK and a locally acquired case by Romania. For 2013, the Netherlands reported one travel-associated case. The patient was a 51-year-old man exposed to an unknown source in Haiti. For 2014, three cases of rabies were reported in people who travelled to a non-EU/EEA country endemic for rabies: a 46-year-old woman from Spain bitten by a dog in Morocco, a 57-year-old man from France infected by a canine strain of rabies virus in Mali and a 35-year-old

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Dutchwoman bitten by a dog in India. Related to the case in France, 52 healthcare workers were considered to have been possibly exposed to the patient's body fluids and were offered rabies vaccination [4].

Discussion

Human rabies is a rare vaccine-preventable zoonosis in Europe, but the disease is fatal in infected humans once the first clinical symptoms have appeared. Either no or very few cases of rabies in humans are reported annually in the EU and most EU Member States have not had autochthonous cases for decades.

In Europe, bites are typically from foxes and stray dogs, but sometimes also from raccoon dogs. Bats are also carriers of lyssaviruses such as EBLV-1 or EBLV-2 (European bat lyssavirus) and can transmit rabies to other mammals, including humans. In many places throughout Asia and Africa, stray dogs are a main source of infection for humans. Illegal importation of pet animals poses a risk for rabies importation as reported in France in 2015 [5]. Another source of infection may be through organ transplantation [6]. The re-emergence of rabies in northern Italy from 2008 to 2011 and Greece from 2012 to 2013 showed the importance of maintaining high awareness levels [7].

Data on rabies surveillance in animals across Europe are available from the ECDC/European Food Safety Authority (EFSA) summary report on trends and sources of zoonoses, zoonotic agents and food-borne outbreaks [8] and from the WHO Collaborating Centre for Rabies Surveillance and Research [9].

Public health implications

It remains important to inform the public about the risk of contracting rabies if bitten by animals (especially dogs) while travelling in Member States that have not eradicated the disease in their animal population or to countries where rabies is endemic [10]. Preventive measures include vaccination of domestic carnivores and oral vaccination of wildlife.

Timely prophylaxis in the event of exposure to a potentially infected animal is of utmost importance and knowledge of the epidemiological situation is vital to decide on appropriate post-exposure measures. Treatment consists of local wound care, vaccination and, if indicated, passive immunisation with immunoglobulin. To be effective, treatment has to occur as soon as possible after exposure. Specific safety measures for organ transplantation should be followed [11].

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