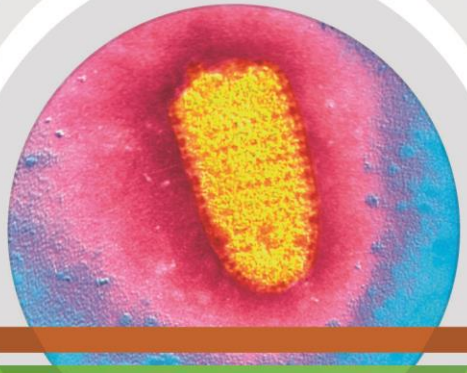

SURVEILLANCE REPORT

Annual Epidemiological Report for 2015

Rabies

Key facts

- No cases of rabies were reported in 2015.
- Annually, either no or a very small number of human rabies cases are reported in Europe; cases can be travel-related or autochthonous.

Methods

This report is based on data for 2015 retrieved from The European Surveillance System (TESSy) on 12 December 2016. TESSy is a system for the collection, analysis and dissemination of data on communicable diseases. EU Member States and EEA countries contribute to the system by uploading their infectious disease surveillance data at regular intervals.

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].

Additional data on this disease are accessible from ECDC's online *Surveillance atlas of infectious diseases* [3].

Twenty-seven EU/EEA countries reported data on rabies in TESSy in 2015.

Twenty-four countries use the EU case definition. An alternative case definition was used by Denmark, France, Germany and Italy. Belgium and Finland did not specify their case definitions.

Reporting is compulsory in 26 countries (not in Belgium, Latvia and the United Kingdom). Surveillance is comprehensive in all reporting countries and passive in 27 countries, with the exception of the Czech Republic, Slovakia and the United Kingdom. Reporting is case based in all EU countries and conducted at the national level [2].

Suggested citation: European Centre for Disease Prevention and Control. Rabies. In: ECDC. Annual epidemiological report for 2015. Stockholm: ECDC; 2017.

Stockholm, November 2017

Epidemiology

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 2011, only one human case of rabies was reported in Europe. In 2012, two human cases were reported among European citizens. In 2013, one travel-associated case of rabies was reported from the Netherlands. The patient was a 51-year-old man, exposed to an unknown source in Haiti. In 2014, three cases of rabies in people who travelled to a non-EU/EEA country endemic for rabies were reported: 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 Dutch woman bitten by a dog in India [3,4]. The case in France resulted in the potential exposure of 158 healthcare workers.

Discussion

Every year, human rabies claims more than 50 000 lives worldwide. It is a rare vaccine-preventable zoonosis in Europe, but the disease is invariably fatal in infected humans once the first clinical symptoms have appeared.

Rabies is a neurological disease caused by a virus of the genus *Lyssavirus*, *Rhabdoviridae* family. The virus can infect all warm-blooded animals and is transmitted through contact with saliva from infected animals through bites. In Europe, bites are typically from foxes and stray dogs, but also, for example, 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 in Asia and Africa, stray dogs are a main source of infections for humans. People visiting areas where rabies is endemic should be aware of this. Illegal importation of pet animals poses a risk for rabies importation as reported in France in 2015 [5]. The re-emergence of rabies in northern Italy in 2008–2011 and in Greece in 2012–2013 showed the importance of maintaining high awareness levels [6]. Data on rabies surveillance in animals in Europe are available online from the WHO Collaborating Centre for Rabies Surveillance and Research [7] and from the ECDC/EFSA report on zoonoses, zoonotic agents and food-borne outbreaks [8].

Another source of infection may be through organ transplantation as recently reported in China [9], in the USA in 2013 [10], and in Germany in 2010 [11].

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 which have not eradicated the disease in their animal population or countries where rabies is endemic [12]. Preventive measures include vaccination of domestic carnivores and oral vaccination of wildlife.

Timely prophylaxis in case of exposure to a potentially infected animal is of utmost importance, and knowledge of the epidemiological situation is vital to make decisions with regard to appropriate post-exposure measures [10]. 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. Every year, more than 15 million people worldwide receive a post-bite vaccination to prevent the disease. This is estimated to prevent hundreds of thousands of rabies deaths annually.

Specific safety measures for organ transplantation should be followed [13].

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