

Anthrax

Annual Epidemiological Report for 2017

Key facts

- Anthrax continues to be a rare disease in humans in Europe, with only a few cases reported every year.
- For 2017, two European Union/European Economic Area (EU/EEA) countries reported six confirmed anthrax cases (Romania reported five cases and Bulgaria one). The remaining 28 reporting countries did not notify any confirmed cases.

Methods

This report is based on data for 2017 retrieved from The European Surveillance System (TESSy) on 11 September 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].

Epidemiology

For the purpose of this report, only tables and figures are presented. Please refer to the 2019 and more recent annual epidemiological reports for the most up-to-date information relating to anthrax.

Table 1. Distribution of confirmed anthrax cases by country, EU/EEA, 2013–2017

Country	2013 Confirmed cases	2014 Confirmed cases	2015 Confirmed cases	2016 Confirmed cases	2017 Confirmed cases
Austria	0	0	0	0	0
Belgium	0	0	0	0	0
Bulgaria	1	0	2	0	1
Croatia	1	0	0	0	0
Cyprus	0	0	0	0	0
Czechia	0	0	0	0	0
Denmark	0	0	0	0	0
Estonia	0	0	0	0	0
Finland	0	0	0	0	0
France	0	0	0	0	0

Suggested citation: European Centre for Disease Prevention and Control. Anthrax. In: ECDC. Annual epidemiological report for 2017. Stockholm: ECDC; 2022.

Stockholm, August 2022

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	2013	2014	2015	2016	2017
Country	Confirmed cases	Confirmed cases	Confirmed cases	Confirmed cases	Confirmed cases
Germany	0	0	0	0	0
Greece	0	0	0	0	0
Hungary	0	0	0	0	0
Iceland	0	0	0	0	0
Ireland	0	0	0	0	0
Italy	0	0	0	0	0
Latvia	0	0	0	0	0
Liechtenstein
Lithuania	0	0	0	0	0
Luxembourg	0	0	0	0	0
Malta	0	0	0	0	0
Netherlands	0	0	0	0	0
Norway	0	0	0	0	0
Poland	0	0	0	0	0
Portugal	1	0	0	0	0
Romania	1	0	2	5	5
Slovakia	0	0	0	0	0
Slovenia	0	0	0	0	0
Spain	0	1	0	1	0
Sweden	0	0	0	0	0
United Kingdom	2	0	0	0	0
EU/EEA	6	1	4	6	6

Source: Country reports from Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, the United Kingdom.

Public health implications

Those most at risk of cutaneous anthrax are butchers, farmers, veterinarians or people working in the animal hide industry. Anthrax can be treated with antibiotics. Inhalational anthrax requires respiratory support in an intensive care unit.

Control measures include the appropriate handling of dead animals: disinfection, decontamination and disposal of contaminated materials and decontamination of the environment. Anthrax spores may remain infective for decades in the soil. Workers handling infected carcasses must use protective equipment [4,5].

The risk of exposure for heroin users in EU countries presumably remains, and the identification of additional cases among injecting drug users in the future cannot be ruled out. Information on anthrax should be disseminated to healthcare workers, drug treatment and harm reduction centres, supporting an early diagnosis and treatment. The provision of appropriately-dosed opiate substitution treatment could also prevent further anthrax cases [6]. In addition, the development of a syringe filter for spore-forming bacteria could be a new tool for preventing infections in injecting drug users [7].

Vaccines against anthrax are available. National and international guidelines recommend vaccination for veterinarians, abattoir workers, those working with animal hides or furs, laboratory workers and the armed forces in areas with a high risk of exposure. Animals can be vaccinated to prevent them from being infected and passing the spores on to humans. In areas prone to the disease, particularly those that experience outbreaks or sporadic cases in livestock, annual vaccination of susceptible animals is common. The usually peracute clinical symptoms observed in unvaccinated animals lead to a rapid death and make it very unlikely that meat from such animals enters the food chain [8]. Meat-borne transmission of anthrax in the EU is considered a very rare event [9].

References

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7. Alhusein N, Scott J, Kasprzyk-Hordern B, Bolhuis A. Development of a filter to prevent infections with spore-forming bacteria in injecting drug users. 2016 Dec 1;13(1):33.
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