



TBE IN EUROPE, 2012-2016

Background

TBE is widely distributed in Europe with risk areas mainly in central and eastern Europe and in the Baltic and Nordic countries. Between 2000 and 2010, about 2,000 to 3,500 cases have been reported every year in the European Union and European Economic Area (EU/EEA). In 2012, the European Commission included TBE in the list of notifiable diseases in the EU/EEA, and the European Centre for Disease Prevention and Control (ECDC) requires all 28 EU Member States (plus Iceland and Norway) to annually report their TBE data to the European Surveillance System (TESSy) database using the EU case definition of TBE. In this article, TBE cases reported in the EU/EEA region between 2012 and 2016 are described.

Results

During the time period 2012 to 2016, 23 countries reported a total of 12,500 cases of which 93% were confirmed cases and 7% were probable cases. Most cases reported were autochthonic cases, while 156 cases in total (1.3%) had been classified as imported from other countries (most imported cases from Austria, Sweden and Finland). The mean annual notification rate was 0.54 cases per 100,000 population. However, the three Baltic countries Lithuania, Latvia and Estonia had the highest notification rates with 15.6, 9.5 and 8.7 cases per 100,000 population, respectively. In some districts at subnational level, extremely high notification rates were reported from Utena county in Lithuania (44.5) and Lääne Eesti in Estonia (27.7). Interestingly, two countries alone - Czech Republic and Lithuania – accounted for 38.6% of all reported cases.

During the observed time period, there was no significant trend in the annual notification rate, except a few countries. Most TBE cases (93.3%) had been acquired from May to October, and

most infections (54.4%) were in the age group 40 to 69 years. 48 patients (0.5%) died, and the case fatality rate was higher in older patients (3.1 % in TBE cases aged 80 years or older). Of the 5,205 cases with known vaccination status, 5,066 (97.3%) were not vaccinated, 60 had received one or two doses (1.2%), 60 (1.2% three doses or more and 19 (0.4%) an unknown number of doses. Of the 20 cases with fatal outcome and known vaccination status, 19 had been unvaccinated or had received only one vaccine dose.

Discussion

During the observed time period, there was a stable overall trend in TBE cases reported in Europe (excluding Russia). In some countries, peaks had occurred with an unusually high number of reported cases during the preceding observed time period (e.g. in 2006 and 2009) and again in 2013 with the highest number of TBE cases observed so far (more than 3000) in Europe.

TBE is extremely unequally distributed in Europe. The Czech Republic and Lithuania represent only 2.7% of the population of the 25 countries included in the analyses, but they account for 38.6% of all reported TBE cases. Even within a given country, certain areas may be much more affected (hot spots) than other regions. This study confirms that TBE is more common in the older age group and severity of the disease is higher in older patients compared to younger patients.

Vaccination remains the most effective protective measure against TBE (with only a very low percentage of vaccine failures). In most EU/EEA countries however, TBE vaccination is not reimbursed. Increased awareness of TBE is required to improve vaccination coverage for those living in and those travelling into endemic areas.

Literature

Beauté et al.

Tick-borne encephalitis in Europe, 2012 to 2016

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Author: Dr. Michael Bröker

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