

# TBE in Kyrgyzstan

Wilhelm Erber

**E-CDC risk status: endemic** (data as of end 2023)

## History and current situation

There is very little information and there are only a few publications on TBE in Kyrgyzstan. A survey by Atkinson<sup>1</sup> references the following: In humans and birds low seropositivity has been demonstrated as early as 1973. In 1978, the TBEV was isolated from ticks, and twelve human cases were reported between 1976–1981.

A more recent publication confirmed virus circulation between 2007 and 2009 in local tick populations in Ala-Archa National Nature Park ≈40 km south of Bishkek, the capital of Kyrgyzstan, as well as serologic evidence of a possible human TBE case.<sup>2</sup>

The TBEV strain isolated from an *Ixodes persulcatus* tick pool and from liver samples from 2 *Apodemus pallipes* mice was shown to be of the Siberian (TBEV-Sib) subtype and most closely related to strains from Novosibirsk.<sup>2</sup>

## Overview of TBE in Kyrgyzstan

**Table 1: Virus, vector, transmission of TBE in Kyrgyzstan**

<b>Viral subtypes, distribution</b>	Siberian TBEV strains from Bosnia, the Crimean peninsula, Kyrgyzstan and Kazakhstan are clustered into a newly described Bosnia Lineage <sup>3</sup>
<b>Reservoir animals</b>	Rodents, insectivores
<b>Infected tick species (%)</b>	<i>I. persulcatus</i>
<b>Dairy product transmission</b>	Not known

### Burden of TBE in Kyrgyzstan over time:

no data available

### Age and gender distribution of TBE in

**Kyrgyzstan:** no data available

### TBEV-isolation and TBE cases in Kyrgyzstan:

no reported cases of TBE in the country

**Table 2: TBE reporting and vaccine prevention in Kyrgyzstan**

<b>Mandatory TBE reporting</b>	Not known
<b>Other TBE surveillance</b>	Not known
<b>Special clinical features</b>	Not known
<b>Available vaccines</b>	Not known
<b>Vaccination recommendations and reimbursement</b>	Not known
<b>Vaccine uptake by age group/risk group/general population</b>	Data not available
<b>Name, address/ website of TBE NRC</b>	Not known

**Contact:** wilhelm.erber@gmail.com

### Citation:

Erber W. TBE in Kyrgyzstan. Chapter 13. In: Dobler G, Erber W, Bröker M, Chitimia-Dobler L, Schmitt, HJ, eds. *The TBE Book*. 7th ed. Singapore: Global Health Press; 2024. doi:10.33442/26613980\_13-18-7

### References

- Atkinson B, Hewson R. Emerging arboviruses of clinical importance in Central Asia. *J Gen Virol*. 2018;99(9):1172-84.
- Briggs BJ, Atkinson B, Czechowski DM, et al. Tick-borne encephalitis virus, Kyrgyzstan. *Emerg Infect Dis*. 2011;17(5):876-9.
- Tkachev SE, Babkin IV, Chicherina GS, et al. Genetic diversity and geographical distribution of the Siberian subtype of the tick-borne encephalitis virus. *Ticks Tick Borne Dis*. 2020;11(2):101327.