

Section 12

EQUIDAE

CHAPTER 12.4

INFECTION WITH EASTERN EQUINE ENCEPHALITIS VIRUS (EASTERN EQUINE ENCEPHALOMYELITIS) AND INFECTION WITH WESTERN EQUINE ENCEPHALITIS VIRUS (WESTERN EQUINE ENCEPHALOMYELITIS)

Article.12.4.1

General provisions

Eastern equine encephalomyelitis (EEE) and Western equine encephalomyelitis (WEE) are *vector*-borne diseases of importance to public health. Eastern equine encephalitis virus (EEEV) and Western equine encephalitis virus (WEEV) are transmitted by mosquitoes, wild birds constituting the reservoir while equids are dead-end hosts. Therefore, equids and their products do not present a risk of transmission. However, equids are useful sentinels for the early detection of *infection* with EEEV or WEEV to mitigate the animal health and public health risks of these pathogenic agents.

For the purposes of the *Terrestrial Code*, EEE is defined as an *infection* of equids with EEEV, and WEE is defined as an *infection* of equids with WEEV.

The following defines the occurrence of *infection* with EEEV or *infection* with WEEV:

1. EEEV or WEEV has been isolated and identified as such in a sample from an equid; or
2. nucleic acid or antigen specific to EEEV or WEEV has been detected in a sample from an equid showing clinical signs or pathological lesions consistent with EEE or WEE, or epidemiologically linked to a confirmed or suspected *case*, or giving cause for suspicion of previous association with or exposure to EEEV or WEEV; or
3. antibodies specific to EEEV or WEEV, which are not the consequence of *vaccination*, have been detected in a sample from an equid showing clinical signs or pathological lesions consistent with EEE or WEE, or epidemiologically linked to a confirmed or suspected *case*.

Standards for diagnosis and vaccines, as well as information on the epidemiology, are described in the *Terrestrial Manual*.

Article.12.4.2

Safe commodities

When authorising the importation or transit of equids or other equid *commodities*, *Veterinary Authorities* should not require any EEE- or WEE-related conditions regardless of the *animal health status* of the country or *zone* of origin.

Article.12.4.3

Surveillance of EEE or WEE

The objective of *surveillance* of EEE and WEE is for the *Veterinary Authority* to coordinate in a timely manner with public health and other relevant *Competent Authorities* and share information to use the *surveillance* outcomes to prevent animal and human exposure. Although equids are dead-end hosts of EEE and WEE, they act as sentinels for the presence of EEEV or WEEV in an area.

Surveillance of EEE or WEE should be carried out in accordance with Chapter 1.4. and with the following recommendations.

Veterinary Authority should develop *early warning systems* to detect EEE and WEE epidemic events, so as to promote awareness campaigns to sensitise the owners and keepers of equids, the *veterinarians* and the public health authorities of the disease risks. In such situations, *surveillance* should be conducted to define the extent of the epidemic area for the purpose of disease prevention and control.

Clinical *surveillance* to detect clinical signs of *infection* with EEEV or WEEV in equids should be the basis of the *early warning system*. Clinical disease in equids is characterised by fever, anorexia, and severe depression. In severe *cases*, it can progress to neurological signs and death. Clinical *surveillance* targeted at neurological signs in equids can provide reinforced evidence of the occurrence of an epidemic. However, clinical signs are not pathognomonic and suspected *cases* detected by clinical *surveillance* should always be confirmed by laboratory testing, taking into account the epidemiological situation. The rate at which such suspected *cases* are likely to occur can differ between epidemiological situations and cannot, therefore, be predicted reliably.

An epidemic should be suspected when ecological conditions favour the breeding of large numbers of mosquito *vectors* with the concurrent or consequent occurrence of an increased number of equids showing clinical signs or pathological lesions consistent with *infection* with EEEV or WEEV, or reports of infection in humans or wild birds. This is especially the case for countries or *zones* where *infection* with EEEV or WEEV has occurred, or countries or *zones* adjacent to a country or *zone* in which epidemics have been reported. Ecological conditions can be assessed through sharing and analysis of meteorological data, data on precipitation and water levels, and monitoring of mosquito *vector* activity.

Detection of *infection* with EEEV or WEEV in an area is indicative of mosquito *vector* activity in this area and is a more sensitive approach to *monitoring* for EEEV or WEEV than mosquito *vector surveillance*. Findings of EEEV or WEEV in mosquito *vectors* is of low sensitivity and, therefore, is not a recommended *surveillance* method.

NB: FIRST ADOPTED IN 1968; MOST RECENT UPDATE ADOPTED IN 2025.