Annex 25

Chapter 8.10.
 **infection with japanese encephalitis virus (japanese encephalitis)**

Article 8.10.1.

General provisions

Japanese encephalitis is a *vector*-borne disease of significant importance to public health transmitted by bites of culicine mosquitoes. Suids are considered amplifying hosts and wild birds are considered to be reservoir and amplifying hosts. Equids are dead-end hosts and therefore, equids and their products do not present a risk of transmission. However, equids may be useful sentinels for the early detection of Japanese encephalitis to mitigate animal health and public health risks posed by the pathogenic agent.

For the purposes of the *Terrestrial Code*, Japanese encephalitis is defined as an *infection* of suids, equids, and wild birds (hereafter ‘animal hosts’) with Japanese encephalitis virus (JEV).

The following defines the occurrence of *infection* with JEV:

1) JEV has been isolated and identified as such in a sample from an animal host; or

2) nucleic acid or antigen specific to JEV has been detected in a sample from an animal host showing clinical signs or pathological lesions consistent with Japanese encephalitis, or epidemiologically linked to a confirmed or suspected *case*, or giving cause for suspicion of previous association with or exposure to JEV; or

3) seroconversion specific to JEV, which is not the consequence of *vaccination*, has been detected in an animal host; or

4) antibodies specific to JEV, which are not the consequence of *vaccination*, have been detected in a sample from an animal host showing clinical signs or pathological lesions consistent with Japanese encephalitis or epidemiologically linked to a confirmed or suspected *case*, or giving cause for suspicion of previous association with or exposure to JEV.

A notification of infection of equids or wild birds with JEV does not affect the Japanese encephalitis status of a country or zone.

For the purposes of the *Terrestrial Code*, the *infective period* in suids shall be seven days.

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

Article 8.10.2.

Safe commodities

When authorising the importation or transit of the following *commodities*, *Veterinary Authorities* should not require any Japanese encephalitis-related conditions regardless of the *animal health* *status* of the country or *zone* of origin:

1) equids and other equid *commodities*;

2) *meat* and *meat products* from suids;

3) *protein meal* and rendered fat from suids;

4) gelatine and collagen from suids; and

5) hides, skins and hair from suids.

Article 8.10.3.

Country or zone free from infection with JEV in suids

A country or *zone* may be considered free from *infection* with JEV when:

1) the *infection* has been notifiable in the entire country for at least the past two years;

2) appropriate *biosecurity* and *sanitary measures* to prevent the introduction of *infection* have been in place; in particular, the importation or movements of suids or wild birds and their *commodities* into the country or *zone* have been carried out in accordance with this chapter or other relevant chapters of the *Terrestrial Code,* including Chapter 2.1. ‘Import risk analysis*’*;

3) *vaccination* against JEV of suids was not conducted in the entire country or *zone* for the past 12 months;

4) and either:

a) the country or *zone* is historically free as described in point 2) b) of Article 1.4.6.; or

b) for at least the past two years, *surveillance* in accordance with Article 8.10.9. has been in place in the entire country or *zone* and there has been no *case* in suids in the country or *zone*.

Article 8.10.4.

Compartment free from infection with JEV in suids

The establishment of a [*compartment*](http://www.oie.int/index.php?id=169&L=0&htmfile=glossaire.htm#terme_compartiment) free from *infection* with JEV should follow the relevant provisions laid down in Article 8.10.3. 1) and 2) and in Chapters [4.4.](http://www.oie.int/index.php?id=169&L=0&htmfile=chapitre_zoning_compartment.htm#chapitre_zoning_compartment) and 4.5.

Suids in the free *compartment* should be protected from the bites of culicine mosquitoes in accordance with Article 8.10.8.

Article 8.10.5.

Recovery of free status

To regain free status when an *infection* of JEV occurs in a previously free country or *zone*, Article 8.10.3. applies.

Article 8.10.6.

Recommendations for importation of suids from countries, zones or compartments free from Japanese encephalitis

[*Veterinary Authorities*](http://www.oie.int/index.php?id=169&L=0&htmfile=glossaire.htm#terme_autorite_veterinaire) of [*importing countries*](http://www.oie.int/index.php?id=169&L=0&htmfile=glossaire.htm#terme_pays_importateur) should require the presentation of an [*international veterinary certificate*](http://www.oie.int/index.php?id=169&L=0&htmfile=glossaire.htm#terme_certificat_veterinaire_international)attesting that the animals:

1. showed no clinical sign of Japanese encephalitis on the day of shipment;
2. were kept in a country, *zone* or *compartment* free from Japanese encephalitis since birth or for at least the past 14 days prior to shipment;
3. either,
	1. did not transit through an infected *zone* during transportation to the *place of shipment*; or
	2. were protected from culicine mosquito bites at all times when transiting through an infected *zone* in accordance with Article 8.10.8.

Article 8.10.7.

Recommendations for importation of suids from countries or zones infected with JEV

[*Veterinary Authorities*](http://www.oie.int/index.php?id=169&L=0&htmfile=glossaire.htm#terme_autorite_veterinaire) of [*importing countries*](http://www.oie.int/index.php?id=169&L=0&htmfile=glossaire.htm#terme_pays_importateur) should require the presentation of an [*international veterinary certificate*](http://www.oie.int/index.php?id=169&L=0&htmfile=glossaire.htm#terme_certificat_veterinaire_international)attesting that the animals:

1. showed no clinical sign of Japanese encephalitis on the day of shipment; and
2. either,
	1. were vaccinated against JEV, and *vaccination* was completed according to the manufacture recommendation at least 21 days and no longer than one year prior to shipment; or
	2. were isolated in a *vector*-protected *quarantine station*, which is located in an area of demonstrated low *vector* activity, for at least 14 days prior to shipment, and were protected from culicine mosquito bites at all times during transportation from the *quarantine station* to the *place of shipment* in accordance with Article 8.10.8.

Article 8.10.8.

Protecting suids from culicine mosquito bites

1. Vector-protected *quarantine station*

The means of protection of the *quarantine station* should at least comprise the following:

1. appropriate physical barriers at entry and exit points, for example a double-door entry-exit system;
2. openings of the building are *vector* screened with mesh of appropriate gauge;
3. *vector surveillance* and *vector* control within and around the building;
4. measures to limit or eliminate breeding sites for *vectors* in vicinity of the *quarantine station*;
5. Standard Operating Procedures for operation of the *quarantine station* and for transport of suids to the place of *loading*.
6. During transportation

When transporting unvaccinated suids through countries or *zones* infected with JEV, *Veterinary Authorities* should require that strategies to protect suids from culicine mosquito bites are in place, considering the local ecology of the *vector*.

 a. Transport by road

 Potential *risk management* strategies include a combination of:

1. treating animals with an *approved* repellent to prevent bites prior to and during transportation, in *vehicles disinfected* anddisinsected with an *approved* insecticide;
2. *loading*, transporting and *unloading* animals at times of low *vector* activity;
3. ensuring *vehicles* do not stop en route during dawn or dusk, or overnight, unless the *vehicle* is insect proof;
4. using historical, ongoing or modelling information on JEV and *surveillance* for *vectors* at common stopping and offloading points to identify low risk ports and transport routes.

b. Transport by air

Prior to *loading* the suids, *containers* are sprayed with an *approved* insecticide.

*Containers* in which suids are being transported and the cargo hold of the aircraft should be sprayed with an *approved* insecticide when the doors have been closed and prior to take off. All possible insect harbourage should be treated. The insecticide sprayers should be retained for inspection on arrival.

In addition, during any stopover in countries or *zones* where *infection* with JEV occurs, prior to the opening of any aircraft door and until all doors are closed, netting of appropriate gauge impregnated with an *approved* insecticide should be placed over all *containers*.

Article 8.10.9.

Surveillance for infection with Japanese encephalitis virus

The objectives of surveillance of Japanese encephalitis are for the *Veterinary Authority* to coordinate in a timely manner with public health and other relevant *Competent Authorities*, to share information to mitigate *risks* to animal health and human health, and to facilitate safe *international trade*.

*Surveillance* of Japanese encephalitis should be carried out in accordance with Chapter 1.4. and with the following recommendations.

Clinical and syndromic *surveillance* to detect signs of *infection* with JEV in animal hosts are components of an *early warning system*. However, clinical signs are not pathognomonic and not always present. Suspect *cases* should always be confirmed by laboratory testing, taking into account the epidemiological situation.

Oronasal fluids may be used for *surveillance* of Japanese encephalitis in suids due to their ease of collection and non-invasive nature.

*Surveillance* for Japanese encephalitis often involves serological monitoring. The use of sentinel animals, which provide early indication of local transmission of JEV, may involve several susceptible animals. This may include not only animal hosts but also incidental hosts such as dogs, cattle, goats and domestic birds.

In infected countries, the *Veterinary Authority* should develop *early warning systems* to detect Japanese encephalitis epidemic events, so as to promote awareness campaigns to sensitise the owners and keepers of suids and equids, the *veterinarians*, the public health authorities, and other relevant stakeholders to the disease risk. Environmental surveillance may play a role in detecting JEV in areas where animal hosts are present. This may include sampling of natural water sources, *establishments* and *slaughterhouse* or abattoir wastewater.

*Surveillance* for vectors conducted in accordance with Chapter 1.5. may be helpful in identifying vector activity and presence of JEV.

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