



Forth Quarter Summary Report: October – December 2019

This article provides a summary of international infectious disease outbreaks reported during Q4 2019. The ICC interim (real-time) reports, on an interactive website, can be found at <http://jdata.co.za/icviewer/>

The data presented in this report *must be interpreted with caution*, as there is likely to be some bias in the way that samples are submitted for laboratory testing and subsequently reported. Consequently these data do not necessarily reflect true infectious disease frequency within the international equine population. A country with no reported outbreaks of a disease does not necessarily equate to the disease not being present in that country. Each table below summarises the number of disease outbreaks reported by a country. Each reported outbreak may involve more than one animal.

Reproductive Diseases

Country	CEM	EHV-1	EHV-4	Leptospiral	<i>Neorickettsia risticii</i>
Denmark	1	-	-	-	-
France	1	1	2	-	-
Germany	1	-	-	-	-
Netherlands	-	1	-	-	-
South Korea	1	-	-	-	-
USA	-	-	3	1	2

Contagious Equine Metritis (CEM)



A subclinical stallion tested positive following pre-breeding testing.



A stallion tested positive on a genital swab.



A non-Thoroughbred stallion tested positive on a genital swab.



Three samples out of 2,269 tested positive by qPCR on venereal swabs. Positive horses have been under breeding and movement restrictions.

Equine Herpes Virus-1 (EHV-1) Abortion



A single case was confirmed by PCR on fetal tissue.



A single case was confirmed in an unvaccinated eight-month pregnant mare. There were nine in-contacts, including three pregnant mares.

Equine Herpes Virus-4 (EHV-4) Abortion



Two outbreaks were reported and both involved single cases of abortion. Positive diagnoses were confirmed by PCR on fetal tissues for one case and placental tissues for the other case.



Three cases of EHV-4 abortion were diagnosed in the fourth quarter.

Leptospiral Abortion



One case of leptospiral abortion was recorded in Kentucky.

Neorickettsia risticii



Two cases of abortion due to *Neorickettsia risticii* were diagnosed in Kentucky.

Respiratory Diseases

Country	EHV-1	EHV-4	Influenza	<i>Rhodococcus equi</i>	Strangles
Belgium	-	-	-	-	4
France	2	41	1	-	21
Germany	-	3	1	-	3
Japan	-	1	-	-	-
Netherlands	1	5	3	-	12
South Africa	1	-	-	-	-
Switzerland	-	-	-	-	1
UK	4	11	3	-	-
USA	1	-	6	2	8

Equine Herpes Virus-1 (EHV-1) Respiratory Infection

-  Two outbreaks were reported and both involved single cases. Positive diagnoses were confirmed by PCR on a nasopharyngeal swab.
-  A single case was reported. Clinical signs included pyrexia. The positive diagnosis was confirmed by PCR on a nasopharyngeal swab.
-  One outbreak was reported on a premises in the free state province.
-  Four outbreaks were reported and all involved single laboratory confirmed cases by PCR on a nasopharyngeal swab. Clinical signs included coughing, inappetence, nasal discharge, lethargy and pyrexia. One case had a recent history of travel and one case was a new arrival.
-  A single case was reported.

Equine Herpes Virus-4 (EHV-4) Respiratory Infection

-  Clinical signs included coughing, lymphadenopathy, nasal discharge and pyrexia. 34 outbreaks involved single cases, three involved two cases, two involved three cases, one involved five cases and one involved 10 cases. For most, the positive diagnosis was confirmed by PCR on a nasopharyngeal swab. Two cases were confirmed by PCR on a bronchoalveolar lavage.
-  Reports were of single cases. Positive diagnoses were confirmed by PCR on nasal swabs.
-  A single outbreak involving two unvaccinated Thoroughbreds was confirmed. Clinical signs included nasal discharge and pyrexia.
-  Most outbreaks reports were of single cases, one outbreak reported five affected foals and one involved two horses with clinical signs.
-  Most reports were of single cases. One outbreak involved mild/subclinical signs amongst a group of 32 weanlings, two involved three affected horses and one involved eight affected yearlings. For all, positive diagnoses were made by PCR on nasopharyngeal swabs.

Equine Influenza

-  A single outbreak was reported involving one laboratory confirmed case and a further two horses with clinical signs, amongst a group of 50 horses.
-  A single case was reported and clinical signs included coughing, mucoid nasal discharge and pyrexia.
-  One outbreak involved one unvaccinated laboratory confirmed case with a further 20 horses with clinical signs. One outbreak involved one unvaccinated laboratory confirmed case with a further seven horses with clinical signs. One outbreak involved two unvaccinated laboratory confirmed cases and one of the horses also tested positive for strangles.

 One outbreak involved one unvaccinated laboratory confirmed case with a further two unvaccinated horses with clinical signs. One of the affected horses was a new arrival in the preceding week. One outbreak involved an unvaccinated new arrival that entered a population of 15 predominantly vaccinated horses and at the time of the report, no others were showing clinical signs. One outbreak involved an unvaccinated new arrival that entered a population of 40 predominantly vaccinated horses and at the time of the report, no others were showing clinical signs.

 Most outbreaks reports were of single cases, one outbreak reported two cases. In one outbreak, the case was a new arrival and also tested positive for EHV-4.

Rhodococcus equi

 *R. equi* infection is endemic and widespread in the USA. While only two outbreaks were confirmed during the period under review, this significantly under-represents the true incidence of the disease.

Strangles

International: Strangles remains endemic in most countries.

Gastrointestinal Diseases

Country	Clostridial enterocolitis	Rotavirus
USA	10	6

Clostridial Enterocolitis

 Ten cases of infection with *Clostridium perfringens* Type A toxin genotype were reported in Kentucky.

Rotaviral Enteritis

 Several cases of rotavirus infection were recorded involving three states; two were of the G3 genotype and four of the G14 genotype.

Neurological Diseases

Country	EEE	EEV	EHV-1	WNV
Belgium	-	-	1	-
Canada	-	-	1	-
France	-	-	2	7
Germany	-	-	1	3
Netherlands	-	-	3	-
Portugal	-	-	-	1
South Africa	-	1	-	-
USA	22	-	13	16

Eastern Equine Encephalitis (EEE)

 All reports were of single cases. The majority were unvaccinated and died or were euthanased.

Equine Encephalosis Virus (EEV)

 A single case was reported.

Equine Herpes Virus-1 (EHV-1) Neurological Disease

 Five horses were affected and clinical signs included pyrexia, ataxia and paralysis.

 Two vaccinated horses were affected and died or were euthanased.

 One outbreak reported one positive horse, confirmed by PCR on blood, with a further two with clinical signs. One outbreak reported a single case confirmed by PCR on a nasopharyngeal swab.

 Clinical signs included pyrexia, ataxia and paralytic bladder. Positive diagnoses were made by PCR on nasopharyngeal swabs or EDTA blood.

 One outbreak involved 11 affected horses and two were euthanased. Two outbreaks reported single cases and one of these cases was euthanased.

 Nine outbreaks reported single cases, one reported four affected horses and one reported multiple affected horses.

West Nile Virus (WNV)

 Outbreaks involved reports of single cases. Clinical signs included depression, inappetence, pyrexia, ataxia, paresis and paralysis.

 Outbreaks involved reports of single cases.

 Two horses were affected.

 Outbreaks involved reports of single cases. One case tested positive for EEE and WNV.

Miscellaneous Diseases

Country	AHS	EIA	Glanders	Leptospirosis	Piroplasmosis	Vesicular stomatitis
Belgium	-	-	-	2	-	-
France	-	2	-	-	-	-
South Africa	1	-	-	-	6	-
Turkey	-	-	3	-	-	-
USA	-	2	-	-	-	35

African Horse Sickness (AHS)

 Sporadic cases (less than five in total) of AHS occurred in the infected part of the country in the Free State, Gauteng and the North West Provinces. These were the first cases reported in the country for the 2019/2020 AHS season. There were no cases of AHS in the western Cape Province in the infected part of the province or in the AHS controlled areas.

Equine Infectious Anaemia (EIA)

 Outbreaks involved reports of single cases. Were reported, one case had clinical signs of pyrexia.

 Outbreaks involved reports of single cases.

Glanders

 Horses underwent serological screening and 63 samples were positive and 18 were suspect positive. All positive and suspects were euthanased.

Leptospirosis

 Outbreaks involved reports of single cases.

Piroplasmosis

 Piroplasmosis is regarded as endemic in South Africa and sporadic cases were reported throughout the country.

Vesicular Stomatitis

 Vesicular stomatitis (Indiana subgroup) was confirmed on premises in eight states (Colorado, Kansas, Nebraska, New Mexico, Oklahoma, Texas, Utah and Wyoming). Of the 35 recorded outbreaks, 29 were in October and six in November. No new affected premises have been identified since late November.