

# International Infectious Disease Reports

(1 July to 30 September 2021)



International  
Collating Centre

## INTERNATIONAL COLLATING CENTRE Information Exchange on Infectious Equine Disease

*Generously supported by contributions from  
International Thoroughbred Breeders Federation members  
E: equinesurveillance@gmail.com*



### Third Quarter Summary Report: July - September 2021

This article provides a summary of international disease outbreaks during third quarter 2021. It should also be noted that additional summary reports were kindly received that included further information on disease occurrence for that country but which had not been reported in previous real-time ICC reports. This additional information is identified by \*or # in the tables and text where relevant throughout this report. The information from the ICC interim (real-time) reports are available on the interactive ICC website, which can be found at [www.equinesurveillance.org/iccview/](http://www.equinesurveillance.org/iccview/).

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-3	Lepto- spiro- siosis	PHF
Germany	13	-	-	-	-
USA	-	*2	*1	*2	*1

*\*relates to additional summary information reported at the end of the quarter, but which was not reported via ICC interim reports*

#### Contagious Equine Metritis (CEM)

##### Germany



Thirteen outbreaks of CEM were confirmed with three outbreaks with two cases and 10 outbreaks with one case on premises in Bavaria, Bayern, Hesson, Lower Saxony, North Rhine-Westphalia and Schleswig-Holstein. Six of the outbreaks involved stallions and seven outbreaks involved mares, with diagnoses confirmed by PCR on genital swabs.

#### Equine Herpes Virus-1 (EHV-1) Abortion

##### USA



\*Two cases of EHV-1 abortion were reported in Kentucky, after the quarter end.

#### Equine Herpes Virus (EHV-3)

##### USA



\*One case of coital exanthema (EHV-3) was diagnosed in Kentucky, after the quarter end.

#### Leptospirosis

##### USA



\*One case of leptospiral abortion and one of renal disease due to leptospiral infection were reported in Kentucky, after the quarter end.

## **Potomac Horse Fever (PHF)**

### **USA**



\*One case of Potomac horse fever (equine monocytic ehrlichiosis) abortion was confirmed in Kentucky, after the quarter end.

## **Respiratory Conditions**

<b>Country</b>	<b>EHV-1</b>	<b>EHV-2</b>	<b>EHV-5</b>	<b>EHV-4</b>	<b>Flu</b>	<b>R. equi</b>	<b>Strangles</b>
Belgium	-	-	-	-	-	-	1
Canada	-	-	-	-	1	-	-
France	-	-	-	4	-	-	22
Germany	2	-	-	2	-	-	2
Italy	-	-	-	1	-	-	-
Netherlands	-	-	-	2	-	-	24
Switzerland	-	-	-	2	-	-	5
South Africa	*9	-	-	*1	-	-	-
UK	-	-	-	-	3	-	-
USA	1	*18	*25	-	*23	*11	25

*\*relates to additional summary information reported at the end of the quarter, but which was not reported via ICC interim reports*

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

### **Germany**



Two outbreaks of EHV-1 respiratory infection with a single case in each were confirmed on premises in North Rhine-Westfalia and Meckleburgh Western Pomerania. Clinical signs included bronchopneumonia with abscessation. Positive diagnoses were confirmed by PCR on a nasopharyngeal swab in one case and PCR on a tracheal wash in the other.

### **USA**



One case of EHV-1 respiratory infection was reported in a Thoroughbred filly at a racetrack in Saratoga County, New York. Clinical signs included pyrexia.

### **South Africa**



EHV-1 was reported from Gauteng Province (seven cases), Kwa-Zulu Natal Province (one case) and the Western Cape Province (one case).

## **Equine Herpes Virus-2 & -5 (EHV-2 & -5) Respiratory Infection**

### **USA**



\*Cases of EHV-2 (n=18) and EHV-5 (n=25) infection were confirmed in five states, some associated with clinical evidence of respiratory disease, after the quarter end.

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

### **France**



Four outbreaks of EHV-4 respiratory infection were confirmed with one outbreak with two cases and three outbreaks with single cases on premises in Calvados, Bouches du Rhone, Aveyron and Loire. Clinical signs included nasal discharge and pyrexia. Positive diagnoses were confirmed by PCR on swabs or nasopharyngeal swabs.

### **Germany**



Two outbreaks of EHV-4 respiratory infection were confirmed with one outbreak with five cases including four foals and one outbreak with seven cases all of which were foals. Clinical signs include pyrexia and nasal discharge. Positive diagnoses were confirmed by PCR.

### **Italy**



One case of EHV-4 respiratory infection was confirmed during the third quarter on a premises in the Province of Sassari.

## Netherlands

 Two outbreaks of EHV-4 respiratory infection were confirmed both with single cases on premises in South Holland and Drenthe. Clinical signs include pyrexia, dry cough and nasal discharge. Positive diagnoses were confirmed by PCR on nasopharyngeal swabs.

## South Africa



EHV-4 was reported from the Western Cape Province (one case).

## Switzerland



Two outbreaks of EHV-4 respiratory infection were confirmed with a single case in each on premises in the Canton of Zurich. Clinical signs include pyrexia. Positive diagnoses were confirmed by PCR.

## Equine Influenza (EI)

### Canada



One case of EI was confirmed during the third quarter affecting a yearling on a premises in British Columbia. The animal had recently been purchased at auction and brought on to the premises.

### UK



Three outbreaks of EI were confirmed with one outbreak with two cases and two outbreaks with one case on premises in Herefordshire, Oxfordshire and Surrey. Clinical signs included cough, enlarged submandibular lymph nodes, inappetence, lethargy and pyrexia. Positive diagnoses were confirmed by PCR on nasopharyngeal swabs in two of the outbreaks.

### USA



\*Equine influenza is endemic in the USA. Single or multiple outbreaks were confirmed in 23 states during the third quarter, after the quarter end.

## Rhodococcus equi

### USA



\*A total of 11 cases of infection with *Rhodococcus equi* were recorded in the third quarter, after the quarter end.

## Strangles

### Belgium



One case of strangles was confirmed on a premises in Limburg in an animal that had recently been bought at auction. Clinical signs include enlarged lymph nodes, pyrexia and ruptured abscesses. Positive diagnosis was confirmed by PCR on nasopharyngeal swab.

### France



Twenty-two outbreaks of strangles were confirmed with one outbreak with three cases, one outbreak with two cases and twenty outbreaks with one case. Clinical signs included abscessation, cough, lymphadenopathy, nasal discharge and pyrexia. Positive diagnoses were confirmed by PCR on guttural pouch lavage, nasopharyngeal swabs, pus or purulent discharge or tracheal lavage.

### Germany



Two outbreaks of strangles were confirmed with one with more than one case and one with one case. Clinical signs include pyrexia and respiratory tract signs. Positive diagnoses were confirmed by PCR.

## Netherlands



Twenty-four outbreaks of strangles were confirmed with one outbreak with three cases and 23 outbreaks with single cases. Clinical signs included abscessating lymph nodes, cough, dyspnoea, enlarged lymph nodes, lethargy, nasal discharge, pyrexia and swollen throat. Positive diagnoses were confirmed by PCR on nasopharyngeal swabs.

## Switzerland



Five outbreaks of strangles were confirmed with single cases in each on premises in the Cantons of Zurich, Fribourg, Graubünden and Geneva. Clinical signs include dyspnoea, dysphagia, nasal discharge, nosebleeds, pyrexia and respiratory tract signs. Positive diagnoses were confirmed by

PCR.

## USA



Twenty-five outbreaks of strangles were confirmed with single cases in 23 outbreaks, one outbreak with eight separate cases and one outbreak with two cases on premises in Florida, Massachusetts, Michigan, New York, Pennsylvania, Washington, Wisconsin and Washington. Clinical signs include abscessation, cough, enlarged submandibular lymph nodes, inappetence, lethargy, nasal discharge and pyrexia. \*Strangles is endemic in the USA. Seven cases were diagnosed additional to those already reported in eight states by the EDCC, after the quarter end.

### Gastrointestinal Diseases

Country	Clostridial Enterocolitis	Equine protozoal myeloencephalitis	Rotavirus	Salmonella
France	-	-	6	-
Switzerland	1	-	-	-
USA	*14	*3	*2	*25

\*relates to additional summary information reported at the end of the quarter, but which was not reported via ICC interim reports

### Clostridial Enterocolitis

#### Switzerland



A case of *Clostridia* spp. infection was confirmed on a premises in the Canton of Thurgau. Clinical signs included diarrhoea and pyrexia. Positive diagnosis was confirmed by culture of *C. perfringens*.

#### USA



\*Eleven cases of *Clostridium perfringens* and three cases of *Clostridium difficile*, were diagnosed on PCR testing, the majority in Kentucky and were all confirmed after the quarter end.

### Equine protozoal myeloencephalitis

#### USA



\*Three cases of equine protozoal myeloencephalitis were confirmed in Kentucky, after the quarter end.

### Rotavirus

#### France



Six outbreaks of rotavirus were confirmed with one outbreak with two cases and five outbreaks with single cases on premises in Calvados, Cantal, Haute Vienne and Orne. Clinical signs include diarrhoea. Positive diagnoses were confirmed by PCR on rectal swabs or faecal matter.

#### USA



\*Two cases of Rotavirus Type A were reported during the third quarter, after the quarter end.

### Salmonella

#### USA



\*Twenty cases of *Salmonella* species, Group B, and five of untyped *Salmonella* species were recorded in Kentucky, after the quarter end.

### Neurological Diseases

Country	EEE	EEV	EHV-1	Rabies	WNV
Argentina	-	-	#1	-	-
Canada	5	-	1	-	3
Germany	-	-	-	-	7
Italy	-	-	-	-	#3
Portugal	-	-	-	-	#3
Spain	-	-	-	-	6

South Africa	-	*2	-	-	-
UAE	-	-	-	-	1
USA	28	-	6	1	58

*\*relates to additional summary information reported at the end of the quarter, but which was not reported via ICC interim reports  
\*reported by ICC after the quarter end*

## **Eastern Equine Encephalitis (EEE)**

### **Canada**



Five outbreaks of EEE were confirmed during the third quarter one with two cases and four with one case on premises in Ontario. Clinical signs included acute neurological signs, ataxia, blindness, cranial nerve deficits, facial paralysis, hyperaesthesia, muscle fasciculations, pyrexia, recumbency, seizures and sudden onset of discomfort. All animals were euthanased.

### **USA**



Twenty-eight outbreaks of EEE were confirmed with one outbreak with three cases and 27 outbreaks with single cases on premises in Arkansas, Florida, Michigan, Minnesota, New Jersey, New York, North Carolina, South Carolina, Virginia and Wisconsin. Clinical signs included anorexia, ataxia, collapse, depression, head pressing, in-coordination, muscle fasciculations, nystagmus, recumbency, pyrexia and teeth grinding. The majority of animals were either unvaccinated or under-vaccinated.

## **Equine Encephalosis Virus (EEV)**

### **South Africa**



Equine Encephalosis Virus (EEV) is regarded as endemic in South Africa. Two cases were reported in the Western Cape Province.

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

### **Argentina**



#One outbreak of EHV-1 neurological disease was reported affecting 10 non-Thoroughbreds and performance horses between 5 and 19 September 2021. It was noted that 40 polo mares aged between five and 12 years old moved from a premises in Carlos Pellegrini to a premises in Pilar. No signs of respiratory, neurological disease or abortion were observed on the original premises. After arrival two mares presented with hind-limb ataxia. From a total of forty mares, four have presented with acute neurological signs and pyrexia, two have presented with pyrexia, three presented with severe respiratory signs and pyrexia and one presented with pyrexia, acute respiratory disease and neurological signs. Positive diagnoses were confirmed by INTA. Control measures including movement restrictions on and off the premises are in place. It was noted that two of the mares have since died.

### **Canada**



One case of EHV-1 neurological disease was confirmed in a vaccinated 25-year-old mare on a premises in Ontario. Clinical signs include severe ataxia progressing to recumbency. The animal was euthanased.

### **USA**



Six outbreaks of EHV-1 neurological disease were confirmed with five involving single cases, and one outbreak involving several animals that had attended a show in Sonoma County, California. Clinical signs included ataxia, inability to stand, neurological signs, oedema, and recumbency. Three of the animals have been euthanased.

## **Rabies**

### **USA**



One case of rabies was confirmed on a premises in Montana. This is the 12<sup>th</sup> case of rabies in the state of Montana in 2021 and the fifth in a terrestrial (non-bat) species.

## **West Nile Virus (WNV)**

### **Canada**



Three outbreaks of WNV were confirmed during the third quarter one with two separate cases and two with one case on premises in Ontario and Saskatchewan. Clinical signs include colic, neurological

deficits, paddling, pyrexia and recumbency. In two of the outbreaks the animals were vaccinated.

### Germany



Seven outbreaks of WNV were confirmed during the third quarter - with single cases in each. Four of the outbreaks were reported in Brandenburg.

### Italy



Two outbreaks of WNV were confirmed during the third quarter with one case in each on premises in Lombardia. In one case the WNV lineage was found to be lineage 2. One further case was reported on a premises in the Province of Bergamo, Lombardia after the quarter end.

### Portugal



#Three separate outbreaks with single cases in each were reported during the third quarter, after the quarter end. Positive diagnoses were confirmed by ELISA.

### Spain



Six outbreaks of WNV were confirmed during the third quarter with one outbreak with three separate cases and two with one case. Two of the outbreaks were confirmed by ELISA.

### United Arab Emirates (UAE)



One case of WNV was confirmed in an unvaccinated non-Thoroughbred mare on a premises in Abu Dhabi in the third quarter. Clinical signs included neurological signs, which deteriorated and the animal was euthanased. Positive diagnosis was confirmed by IgM ELISA.

### USA



Twenty-eight outbreaks of WNV were confirmed during the third quarter on premises in Arizona, California, Colorado, Idaho, Kentucky, Michigan, Minnesota, New York, North Carolina, Pennsylvania, Oklahoma, Oregon, South Carolina, Utah and Washington. Clinical signs included ataxia, hind-end weakness, hyperaesthesia, incoordination, inappetence, lethargy, muscle tremors, nystagmus, pyrexia, tachycardia, tachypnoea and staggering.

## Miscellaneous Diseases

Country	AHS	Anaplasmosis	Anthrax	EIA	EVA	Piro	PHF
Canada	-	-	-	3	-	-	-
France	-	-	-	-	#1	-	-
Italy	-	-	-	#9	-	-	-
Japan	-	-	-	-	-	1	-
Kazakhstan	-	-	1	-	-	-	-
Spain	-	-	1	-	-	-	-
South Africa	*1	-	-	-	-	*38	-
Switzerland	-	3	-	-	-	-	-
USA	-	-	1	6	-	-	9

\*relates to additional summary information reported at the end of the quarter, but which was not reported via ICC interim reports  
#reported by ICC after the quarter end

### African Horse Sickness (AHS)

#### South Africa



AHS is endemic in South Africa except in the AHS controlled area in the Western Cape Province. A single case of AHS was reported in the third quarter of 2021 in Gauteng Province in the AHS endemic area of the country.

## **Anaplasmosis**

### **Switzerland**



Three outbreaks of anaplasmosis with a co-infection of ehrlichiosis with a single case in each were confirmed in the Cantons of Bern, Vaud and Zurich. Clinical signs included pyrexia and anaemia. Positive diagnosis was confirmed by PCR in one case, pathogen detection and IFAT.

## **Anthrax**

### **Kazakhstan**



An outbreak of anthrax on a farm affecting horses, cattle and sheep was confirmed during the third quarter. In a population of 115 horses there were 10 cases and nine deaths. Positive diagnoses were confirmed by PCR.

### **Spain**



Three cases of anthrax on premises in Navalvilla de Pela were confirmed. From nine suspected cases three were confirmed positive by PCR.

### **USA**



One case of anthrax was confirmed in Texas. This was the third case of anthrax reported in Texas in 2021.

## **Equine Infectious Anaemia (EIA)**

### **Canada**



Three separate outbreaks of EIA were confirmed with one case in each on premises in Alberta and British Columbia.

### **Italy**



Eight outbreaks of EIA were confirmed with singles cases in each with one case in a donkey on premises in the Province of Latina (one case), the Province of Caserta (four cases) and the Province of Frosinone (three cases). One further case was reported on a premises in the Province of Enna, Sicily after the quarter end.

### **USA**



Six outbreaks of EIA were confirmed with five in Texas and one in Utah. The Texas outbreaks all involved Quarter Horses. The Utah outbreak involved a group of feral horses sold at an auction.

## **Equine Viral Arteritis (EVA)**

### **France**



# An outbreak of EVA was confirmed in a three-year-old French Saddle colt and a 19-year-old Dutch Warmblood stallion on a premises in Maine et Loire. Positive diagnoses were confirmed by PCR on semen, after the quarter end.

## **Piroplasmosis**

### **Japan**



A case of piroplasmosis was reported during the Olympic Games at the Olympic Games Equestrian Park, Tokyo. The affected animal had clinical signs of pyrexia and anaemia. The sample taken was confirmed positive for *Theileria equi* but negative for *Babesia caballi* by both microscopic blood smear and PCR.

### **South Africa**



Piroplasmosis is regarded as endemic in South Africa and cases were reported from five of the nine provinces as follows, Eastern Cape (four cases), Gauteng (26 cases), Kwa-Zulu Natal (two cases), Mpumlanga (two cases) and Western Cape (four cases).

## **Potomac Horse Fever (PHF)**

### **USA**



Nine outbreaks of PHF were reported with single cases in each on premises in Maryland,

Massachusetts, Tennessee and Washington. Clinical signs include lameness, severe diarrhoea, dehydration, pyrexia, inappetence and lethargy.

