

International Collating Centre: Summary Report

(1 July to 30 September 2022)

The International Collating Centre (ICC), is overseen by Equine Infectious Disease Surveillance (EIDS) and is generously supported by contributions from Fédération Equestre Internationale (FEI), International Thoroughbred Breeders' Federation (ITBF) members, Japanese Racing Association and Lanwades Stud.



National and international equine disease outbreaks are reported on a daily basis by the ICC, through email alerts. Please contact equinesurveillance@gmail.com to receive these. There is also a website available that provides an interactive interface of these infectious disease reports and can also be used to view current outbreak reports, <https://equinesurveillance.org/iccview/>.

This article provides a summary of international disease outbreaks during the third quarter of 2022. 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 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
Argentina	-	#3
Japan	-	-#1
UK	1	-

#some cases reported by ICC after the quarter end

Contagious Equine Metritis (CEM)

United Kingdom



One case of CEM was reported in a seven-year-old non-Thoroughbred stallion, resident on a premises in Nottinghamshire. The affected horse had been imported from the Netherlands at the end of April 2022 as a competition animal, and displayed no clinical signs of infection. The horse has not been used for breeding since arrival in the UK and diagnosis was made during routine pre-breeding screening. The initial positive diagnosis was made by PCR, and subsequently culture, on penile swabs.

Equine Herpes Virus-1 (EHV-1) Abortion

Argentina



#Three outbreaks of EHV-1 abortion reported after the quarter end. Two outbreaks were in vaccinated Thoroughbreds on separate premises in Buenos Aires; one outbreak involving four cases and the other a single case. A third outbreak involving a single case was reported in an unvaccinated non-Thoroughbred on a premises in Corrientes Province. Positive diagnoses were confirmed by PCR.

Japan



#One case of EHV-1 abortion was reported in an unvaccinated Thoroughbred after the quarter end. Positive diagnosis was confirmed by LAMP.

Respiratory Conditions

Country	EHV	EHV-1	EHV-1/ -4	EHV-2	EHV-4	Flu	R. equi	Strangles	Strangles /flu
Austria	-	-	-	-	-	-	-	1	-
France	-	-	-	-	4	2	-	8	-
Germany	-	-	-	-	2	3	-	-	-
Netherlands	-	-	-	-	1	1	-	10	2
Switzerland	-	-	#1	1	1	-	2	5	-
UK	-	-	-	-	6	2	-	-	-
USA	1	1	-	-	-	1	-	26	-

#some cases reported by ICC after the quarter end

Equine Herpes Virus (EHV) Respiratory

USA



One outbreak of EHV respiratory infection (strain not specified) was reported in three donkeys on a premises in Okanogan County, Washington. Clinical signs included nasal discharge and pyrexia. One of the animals is deceased.

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

USA



One case of EHV-1 respiratory infection was reported on a premises in Medina County, Ohio.

Equine Herpes Virus-1/-4 (EHV-1/-4) Respiratory Infection

Switzerland



#One case of EHV-1 & EHV-4 combined respiratory infection on a premises in the Canton of Geneva was reported after the quarter end. Clinical signs included pyrexia. Positive diagnosis was confirmed by PCR.

Equine Herpes Virus-2 (EHV-2) Respiratory Infection

Switzerland



One case of EHV-2 respiratory infection was reported on a premises in the Canton of Zurich. Positive diagnosis was confirmed by PCR.

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

France




Four outbreaks of EHV-4 respiratory infection were reported, each consisting of a single case on each premises in; Aude, Calvados, Côte-d'Armor and Loire-Atlantique,. Clinical signs included: pyrexia, coughing, nasal discharge and lymphadenopathy. Positive diagnoses were confirmed by PCR on nasopharyngeal swabs.

Germany



Two outbreaks of EHV-4 respiratory infection were reported; a single case on a premises in North Rhine-Westphalia and two cases on a premises in Mecklenburg-Western Pomerania. Clinical signs included abscess formation and interstitial bronchopneumonia. Positive diagnoses were confirmed by PCR.


Netherlands

 One case of EHV-4 respiratory infection was reported in an unvaccinated animal on a premises in Limburg. Clinical signs included pyrexia, coughing and nasal discharge. Positive diagnosis was confirmed by PCR on a nasopharyngeal swab.

Switzerland


 One case of EHV-4 respiratory infection was reported on a premises in the Canton of Vaud. Clinical signs included pyrexia and respiratory tract signs. Positive diagnosis was confirmed by PCR.

UK


 Six outbreaks of EHV-4 respiratory infection were reported with; four outbreaks involving one case, one outbreak involving two cases with *Streptococcus zooepidemicus* also detected, and one outbreak with four cases. Outbreaks were reported on premises in Gloucestershire, Northumberland, Perthshire and Wiltshire. Clinical signs included: coughing, inappetence, lethargy, lymphadenopathy, nasal discharge, ocular discharge and pyrexia. Positive diagnoses were confirmed by PCR on nasopharyngeal swabs in five of the outbreaks and by loop-mediated isothermal amplification (LAMP) on nasopharyngeal swabs in two of the outbreaks.

Equine Influenza (EI)

France

 Two outbreaks of EI were reported on premises in Côte-d'Or and Loire-Atlantique. Clinical signs included pyrexia and coughing. In one of the outbreaks, positive diagnosis was confirmed by PCR on a nasopharyngeal swab.


Germany

 Three outbreaks of EI were reported; two outbreaks on premises in Lower Saxony and North Rhine-Westphalia involved a single case each and the other outbreak on a premises in North Rhine-Westphalia involved three cases. Positive diagnoses were confirmed by PCR on nasal or nasopharyngeal swabs.

Netherlands

 One case of EI was reported on a premises in Friesland. Clinical signs included pyrexia, nasal discharge and lethargy. Positive diagnosis was confirmed by PCR on a nasopharyngeal swab.

UK


 Two outbreaks of EI were reported in unvaccinated animals on premises in Lincolnshire and East Dunbartonshire. The case in Lincolnshire had recently been imported. Clinical signs included: coughing, dyspnoea, nasal discharge, pyrexia and tachypnoea. Positive diagnoses were confirmed by PCR on nasopharyngeal swabs with the EI virus responsible for the Lincolnshire case subsequently confirmed as a Florida clade 1 strain.

United States of America

 One case of EI was reported in a vaccinated Quarter Horse gelding on a premises in Benton County, Oregon. Clinical signs included unilateral nasal discharge.

Rhodococcus equi

Switzerland

 Two outbreaks of *Rhodococcus equi* were reported; one outbreak involved a single case on a premises in the Canton of Aargau and the other outbreak involved several cases on a premises in the Canton of Vaud. Positive diagnoses were confirmed by pathogen detection.

Strangles

Austria



One case of strangles was reported on a premises in Austria, close to the border with Germany. Clinical signs included pyrexia. Positive diagnosis was confirmed by PCR.

France



Eight outbreaks of strangles were reported; six outbreaks included a single case on premises in Aude, Bouches-du-Rhones, Côte-d'Or, Isère, Loire-Atlantique and Seine-et-Marne, one outbreak included two cases on a premises in Hautes-Alpes and one outbreak included four cases on a premises in Côte-d'Or. Clinical signs included: coughing, lymphadenopathy, pyrexia and nasal discharge. Positive diagnoses were confirmed by PCR on nasopharyngeal swabs.

Netherlands



Ten outbreaks of strangles were reported, all involving single cases in unvaccinated animals on premises in: Gelderland, North Holland, South Holland, Overijssel and Utrecht. Clinical signs included: enlargement/abscessation/rupture of the mandibular, sub-mandibular and retropharyngeal lymph nodes, coughing, nasal discharge, neurological signs and pyrexia. Positive diagnoses were confirmed by PCR on nasopharyngeal swabs.

Switzerland



Five outbreaks of strangles were reported, all relating to single cases on premises in the Cantons of: Appenzell, Aussenrhoden, Solothurn, Zurich and Vaud. Clinical signs included anaemia, pyrexia, respiratory tract signs and nervous system signs. Positive diagnoses were confirmed by PCR.

USA



Twenty-six outbreaks of strangles were reported on premises in; Florida, Michigan, New York, Washington and Wisconsin. Twenty-five of the outbreaks involved a single case and one outbreak involved two cases. Clinical signs included: coughing, decreased appetite, draining submandibular lymph nodes, dysphagia, dyspnoea, guttural pouch chondroids, lymph node abscessation, nasal discharge, pyrexia and submandibular swelling.

Strangles and Equine Influenza (EI) co-infection

Netherlands



Two outbreaks of strangles, with a co-infection of EI, were reported; one outbreak involved one case on a premises in North Holland and the other involved three cases on a premises in North Brabant. Clinical signs included: coughing, dyspnoea, lethargy, nasal discharge and pyrexia. Positive diagnoses were confirmed by PCR on nasopharyngeal swabs.

Gastrointestinal Diseases

Country	Clostridia spp.	Rotavirus
France	-	1
Switzerland	1	-

Clostridial spp.

Switzerland



One case of clostridial enterocolitis was reported on a premises in the Canton of Bern. Clinical signs included diarrhoea. *Cl. perfringens* Type A was confirmed as the causative agent.

Rotavirus

France



One case of rotavirus was reported on a premises in Ille-et-Vilaine. Clinical signs included diarrhoea and depression. Positive diagnosis was confirmed by PCR on a faecal sample.

Country	EEE	EHV-1	Rabies	WNV
Algeria	-	-	-	1
Argentina	-	#1	-	-
Canada	-	1	-	-
France	-	-	-	#3
Germany	-	-	-	#12
Greece	-	-	-	#4
Italy	-	-	-	23
UK	-	1	-	-
USA	14	4	1	#38

#some cases reported by ICC after the quarter end

Eastern Equine Encephalitis (EEE)

USA



Fourteen outbreaks of EEE were reported on premises in Florida, Indiana, Michigan and New York. Twelve outbreaks involved single cases and the other two outbreaks both involved two cases. The majority of cases were seen in non-vaccinated animals or those with a lapsed vaccination status and all presented with a spectrum of classic neurological signs. It was noted that nine of the animals have since died or been euthanased.

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

Argentina



#During 3Q 2022, one case of EHV-1 neurological disease was reported after the quarter end on a premises in San Isidro. Clinical signs included: mydriasis, pyrexia, hindlimb ataxia and recumbency. The animal was euthanased. Positive diagnosis was confirmed by PCR.

Canada



One case of EHV-1 neurological disease was reported on a premises in Wellington County, Ontario. A mature gelding was euthanased after developing rapidly progressive in-coordination. It was noted that whilst the affected animal had not been off the premises, other horses had recently competed at an off-site event; none of these animals had shown signs of EHV-1.

UK



One case of EHV-1 neurological disease was reported on a premises in Kent. Positive diagnosis was confirmed by PCR on a nasopharyngeal swab but no further details were available.

USA



Four outbreaks of EHV-1 neurological disease, each relating to a single case, were reported on premises in: California, Colorado, Massachusetts and Tennessee. Clinical signs included: ataxia, depression, difficulty urinating, nasal discharge, pyrexia and serous ocular discharge. One case involved a donkey and two cases were associated with recent movement of equids on/off the premises.

Rabies

United States of America



One case of rabies was reported in an unvaccinated Quarter Horse gelding on a premises in Oklahoma. The horse presented with severe neurological signs and was euthanased.

West Nile Virus (WNV)

Algeria



One outbreak of WNV, made up of ten cases was reported by WOA. Positive diagnoses were confirmed by IGM Capture ELISA.

France



Two outbreaks of WNV, each involving a single case, were reported on premises in Var and Provence-Alpes-Côte d'Azur. Clinical signs included: ataxia, lethargy, pyrexia, nystagmus and muscle tremors. Positive diagnoses were confirmed by ELISA. #A report of WNV in a 13-year-old Saddlebred gelding on a premises in Var was reported after the quarter end. Positive diagnosis was confirmed by ELISA on a blood sample.

Germany



Four outbreaks of WNV, each involving a single case, were reported on premises in: Dallgow-Döberitz, Hamburg, Mecklenburg-Vorpommern and Thüringen. Positive diagnoses were confirmed by ELISA. #After the quarter end a further eight outbreaks were reported as follows: three outbreaks in Brandenburg, two outbreaks in Sachsen-Anhalt, one outbreak in Sachsen and a further outbreak in Thüringen. There was also a further case reported in August, location unknown.

Greece



#Four outbreaks of WNV were reported after the quarter end on premises in Langadas, Nea Propontida and Polygyros. Two of the outbreaks involved a single case and the other two outbreaks involved two cases. Positive diagnoses were confirmed by IgG ELISA.

Italy



Twenty-three outbreaks of WNV were reported, each involving a single case, on premises in: Emilia Romagna, Friuli Venezia Giulia, Lombardia, Piemonte and Veneto.

United States of America



Thirty-eight outbreaks of WNV were reported on premises: in California, Colorado, Florida, Idaho, Illinois, Indiana, Minnesota, Utah and Wisconsin. Thirty-seven outbreaks involved a single case and the other outbreak involved two cases. A spectrum of neurological signs were reported. #Two of these outbreaks with single cases were reported after the quarter end.

Miscellaneous Diseases

Country	Ana-plasmosis	EIA	EVA	Hendra	Lepto-spirosis	Piro-plasmosis	Potomac Horse Fever
Australia	-	-	-	1	-	-	-
Canada	-	6	-	-	-	-	-
Germany	-	-	1	-	-	-	-
Hungary	-	1	-	-	-	-	-
Switzerland	1	-	-	-	1	1	-
UK	-	-	-	-	-	1	-
USA	-	9	-	-	-	-	5

Anaplasmosis

Switzerland



One case of anaplasmosis/ehrlichiosis was reported on a premises in the Canton of Vaud. Clinical signs included pyrexia. Positive diagnosis was confirmed by PCR.

Equine Infectious Anaemia (EIA)

Canada



Six outbreaks of EIA, each involving a single case, were reported on premises in: Alberta, British Columbia and Saskatchewan. Two cases presented with clinical signs, two were routinely being tested for export and two had been in-contact with other confirmed cases. One animal has been euthanased.

Hungary



One subclinical case of EIA was reported on a premises in Pest County, Hungary. The animal was asymptomatic but tested positive on an antibody ELISA; paired serology being performed with a three week interval in-between. The animal has been euthanased.

USA



Nine outbreaks of EIA were reported on premises in: California, Nevada, South Carolina and Texas. Six outbreaks consisted of a single case and the other three involved two cases each. The majority of the cases involved Quarter horses and three of the affected animals have been euthanased.

Equine Viral Arteritis (EVA)

Germany



One case was reported in a stallion on a premises in the federal state of Schleswig-Holstein. Positive diagnosis was confirmed by PCR on a semen sample.

Hendra Virus

Australia



One case of Hendra Virus was reported in an unvaccinated animal on a premises in the Mackay region, Queensland. The animal was euthanased after its condition rapidly deteriorated.

Leptospirosis

Switzerland



One case of leptospirosis was reported on a premises in the Canton of Zurich. Clinical signs included: anuria, pyrexia and respiratory tract signs. Positive diagnosis was confirmed by PCR on a urine sample. The animal is deceased.

Piroplasmosis

Switzerland



One case of piroplasmosis was reported on a premises in the Canton of Zurich. Clinical signs included pyrexia and respiratory tract signs. Positive diagnosis was confirmed by serology.

UK



One subclinical outbreak of piroplasmosis was reported on a premises in Gloucestershire, following pre-sales testing. All three animals had previously spent time in Italy. Positive diagnoses for *T. equi* were confirmed in all three horses by serological competitive ELISA and PCR. One animal also had serological evidence of exposure to *B. Caballi*.

Potomac Horse Fever (PHF)

United States of America



Five outbreaks of PHF were reported, each involving single cases, on premises in Tennessee and Virginia. Clinical signs included: anaemia, diarrhoea, inappetence, lameness, lethargy, pyrexia and signs of septic shock. One of the animals has since died.