

International Collating Centre: Summary Report

(1 January to 31 March 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 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 first quarter 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	EHV-1/-4	EHV-3	EHV-4	S. zoo
Belgium	-	1	-	-	-	1
France	-	2	-	1	-	-
Germany	11	3	1	-	-	-
Japan	-	*10	-	-	-	-
Netherlands	-	2	-	-	-	-
UK	1	3	-	-	1	-

*relates to additional summary information reported at the end of the quarter, but which was not reported via ICC interim reports
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Contagious Equine Metritis (CEM)

Germany



Eleven outbreaks of CEM were reported with one outbreak with four cases, one with three cases, one with two cases and eight with single cases on premises in Bavaria, Lower Saxony, North Rhine Westphalia, Rhineland Palatinate and Schleswig Holstein. Six of the outbreaks involved Icelandic horses. Positive diagnoses were confirmed by PCR on genital swabs.

United Kingdom



One case of CEM was reported in an 11-year-old Hanoverian stallion on a non-breeding premises in Gloucestershire. The affected horse had been imported from Europe approximately 18 months previously as a competition animal and had no clinical signs of infection. The diagnosis was made during routine pre-breeding testing on PCR and culture on penile swabs. The case has since been

resolved.

Equine Herpes Virus-1 (EHV-1) Abortion

Belgium



One case of EHV-1 abortion was reported on a premises in Antwerp. The affected animal was vaccinated every six months and aborted at nine months gestation. Positive diagnosis was confirmed by PCR on fetal tissues.

France



Two outbreaks of EHV-1 abortion were reported with single cases in each; the first in a vaccinated nine-year-old Selle Francais mare and the second in a vaccinated six-year-old Thoroughbred mare on premises in Orne and Eure. Positive diagnoses were confirmed by PCR on fetal tissue.

Japan



*Ten outbreaks involving 17 Thoroughbreds were reported and only one of these cases was unvaccinated. It was noted these outbreaks mainly involved abortion, however, some presentations involved neonatal infection of foals that subsequently died shortly after birth. Positive diagnoses were confirmed by PCR or LAMP.

Germany



Three outbreaks of EHV-1 abortion were reported with single cases in each on premises in Bavaria, Lower Saxony and Hesse. Positive diagnoses were confirmed by PCR on fetal liver tissue and placenta, genital swab and vaginal swab from the mare and lung aspirate from the foal.

Netherlands



Two outbreaks of EHV-1 abortion were reported with single cases in each on premises in Gelderland and Overijssel. There were multiple in-contacts in each outbreak. Positive diagnoses were made by PCR on a vaginal swab and PCR on aspiration biopsy of fetal lung.

United Kingdom



Three outbreaks of EHV-1 abortion were reported with single cases in each, two of which were non-vaccinated non-Thoroughbreds and the third a vaccinated 10-year-old Thoroughbred on premises in Lancashire, Northamptonshire and North Yorkshire. In the Lancashire case a further non-vaccinated non-Thoroughbred in the same group aborted the next day and was confirmed positive for EHV-1. Positive diagnoses were confirmed by PCR on placental tissue and fetal tissues.

Equine Herpes Virus-1/-4 (EHV-1/-4) Abortion

Germany



One case of EHV-1/-4 abortion was reported in an 11-year-old vaccinated Thoroughbred mare on a premises in Hessen, the mare was in the last month of gestation. The mare had been kept separate from the 30 animals of mixed age, sex and breed on the same premises. Positive diagnosis was confirmed by PCR on fetal tissue.

Equine Herpes Virus-3 (EHV-3) coital exanthema

France



One case of EHV-3 coital exanthema was reported in a 10-year-old Thoroughbred stallion on a premises in Pyrénées-Atlantiques. Positive diagnosis was confirmed by PCR on a genital swab.

Equine Herpes Virus-4 (EHV-4) Abortion

United Kingdom



One case of EHV-4 abortion was reported in a non-Thoroughbred mare on a premises in Sussex. The animal was in a group of four in-foal mares (three in-contacts) with five more pregnant Sports Horse mares elsewhere on the stud. Positive diagnosis was confirmed by PCR on placental tissue.

Streptococcus zooepidemicus abortion

Belgium



One case of *Streptococcus zooepidemicus* abortion was reported on a premises in West Flanders. The animal aborted at nine months gestation. Positive diagnosis was confirmed by PCR on fetal lung and liver tissue.

Respiratory Conditions

Country	EHV-1	EHV-2/ -5	EHV-4	Flu	Strangles	Strangles / Flu
Belgium	-	1	3	-	5	-
France	3	-	8	-	15	-
Italy	1	-	-	-	-	-
Netherlands	2	-	#4	-	#17	1
Switzerland	-	-	-	-	6	-
UK	-	-	-	1	-	-
USA	3	-	2	11	39	-

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

France



Three outbreaks of EHV-1 respiratory infection were reported with single cases in each in non-Thoroughbreds on premises in Alpes Maritime and Yvelines. Positive diagnoses were confirmed by PCR on nasopharyngeal swabs.

Italy



One case of EHV-1 respiratory infection was reported on a premises in the province of Brescia, Lombardia.

Netherlands



Two outbreaks of EHV-1 respiratory infection with one case in each were reported on premises in Overijssel and Friesland. Clinical signs included pyrexia, cough, nasal discharge and limb oedema. Positive diagnoses were confirmed by PCR on nasopharyngeal swabs.

USA



Three outbreaks of EHV-1 respiratory infection were reported with single cases in each on premises in Washington and Wisconsin. One case also had a co-infection of EHV-4 and equine influenza. Clinical signs included pyrexia. One animal had recently been brought on to the premises and another had returned from a show.

Equine Herpes Virus-2/-5 (EHV-2/-5) Respiratory Infection

Belgium



One case was confirmed on a premises in Antwerp that had a co-infection of EHV-2 & -5. Clinical signs included pyrexia, lymphadenopathy and nasal discharge. Positive diagnosis was confirmed by PCR on a nasal swab.

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

Belgium



Three outbreaks of EHV-4 respiratory infection with singles cases in each were reported on premises in Limburg and Hainaut. One case had a co-infection of EHV-2 and EHV-5. Clinical signs included

cough, pyrexia, enlarged lymph nodes, nasal discharge and dyspnea. Positive diagnoses were confirmed by PCR on nasal swabs in two cases and PCR on a nasopharyngeal swab in one case.

France



Eight outbreaks of EHV-4 respiratory infection were reported with one outbreak with 14 cases, two outbreaks with two cases and five outbreaks with single cases on premises in Calvados, Haut-Rhin, Loir et Cher, Orne Puy de Dôme and Saone et Loire. Clinical signs included pyrexia, cough and nasal discharge. Positive diagnoses were made by PCR on nasopharyngeal swabs in the majority of cases and by PCR on a tracheal lavage in one case.

Netherlands



Three outbreaks of EHV-4 respiratory infection with single cases in each were reported in unvaccinated animals on premises in North Brabant and South Holland. Clinical signs included pyrexia, nasal discharge and cough. Positive diagnoses were confirmed by PCR on nasopharyngeal swabs. One further case was reported in an unvaccinated animal on a premises in North Holland with clinical signs of nasal discharge and dyspnoea after the quarter end.

USA



Two outbreaks of EHV-4 respiratory infection were reported with one outbreak involving 10 to 15 cases in Thoroughbreds in a yearling barn in Kentucky. Several animals had a co-infection with EHV-2. The second outbreak was a single case of EHV-4 respiratory infection with a co-infection of strangles on a premises in Washington. This animal had recently been purchased from a livestock market and had nasal discharge when received.

Equine Influenza (EI)

UK



One case of EI was confirmed in an unvaccinated non-Thoroughbred that had recently arrived on a premises in Surrey after a prolonged travel period, involving air travel and then ferry travel from Germany. Clinical signs included intermittent cough, progressing to profuse mucopurulent nasal discharge, lethargy and pyrexia the day after arrival. Positive diagnosis was confirmed by PCR on a nasopharyngeal swab.

USA



Eleven outbreaks of EI were reported with one outbreak with several cases in vaccinated Thoroughbreds returning from Florida to Kentucky, one outbreak with four cases and nine with single cases on premises in Colorado, Florida, Maryland, South Carolina, Washington and Wisconsin. Clinical signs included cough, nasal discharge, lethargy and pyrexia.

Strangles

Belgium



Five outbreaks of strangles were reported one with multiple cases and four with single cases on premises in Antwerp, Flemish Brabant, Limburg and West Flanders. The outbreak with multiple cases had cases that had a co-infection of EHV-2 and one other outbreak had a case with co-infection of EHV-2 & -5. Clinical signs included abscessation, cough, enlarged submandibular lymph nodes, pyrexia and nasal discharge. Positive diagnoses were confirmed by PCR on nasal swabs or nasopharyngeal swabs.

France



Fifteen outbreaks of strangles were reported with one outbreak with two cases and 14 with single cases on premises in Ain, Aveyron, Bouches du Rhone, Calvados, Cantal, Charente-Maritime, Haute-Garonne, Haute Savoie, Ille et Vilaine, Jura, Manche, Orne and Sarthe. Clinical signs included cough, dyspnoea, pyrexia, nasal discharge and lymphadenopathy. Positive diagnoses were confirmed by PCR on nasal swabs or nasopharyngeal swabs.

Netherlands

 Fifteen outbreaks of strangles were reported with one outbreak with three cases and 14 with single cases in mainly unvaccinated animals on premises in Gelderland, Limburg, North Brabant, North Holland, Overijssel and South Holland. Clinical signs included abscesation, cough, dyspnoea, enlarged mandibular lymph nodes, guttural pouch empyema, nasal discharge, lymph node abscesses, poor appetite, pyrexia and respiratory signs. Positive diagnoses were confirmed by PCR on nasopharyngeal swabs or swabs and in one case by PCR on guttural pouch lavage. #Two further outbreaks with a single case in each were reported after the quarter end on premises in Limburg and Drenthe with clinical signs of pyrexia, lethargy and nasal discharge.

Switzerland

 Six outbreaks of strangles were reported with one outbreak with multiple cases and five with single cases. Clinical signs included diarrhoea, pyrexia, respiratory tract signs and swollen lymph nodes. Positive diagnoses were confirmed by PCR.

USA

 Thirty-nine outbreaks of strangles were reported on premises in Florida, Idaho, Indiana, Maryland, Michigan, Ohio, Tennessee, Washington and Wisconsin.

Strangles/Equine Influenza (EI)

Netherlands

 One case of strangles with a co-infection of EI was reported in an unvaccinated Shetland Pony recently brought on to a premises in South Holland. Clinical signs included pyrexia, dyspnoea, nasal discharge and cough. Positive diagnosis was confirmed by PCR on a nasopharyngeal swab.

Gastrointestinal Diseases

Country	Equine Coronavirus
Germany	1
Switzerland	1

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Equine Coronavirus (EcoV)

Germany

 A single case of EcoV was reported on a premises on the German/Swiss border. Clinical signs included pyrexia and lethargy. Positive diagnosis was confirmed by PCR on faeces.

Switzerland

 One case of equine coronavirus was reported on a premises in the canton of Bern. Clinical signs included pyrexia and colic. Positive diagnosis was confirmed by PCR.

Neurological Diseases

Country	EEE	EHV-1	Tetanus	Rabies
Canada	-	1	-	-
Czechia	-	1	-	-
Finland	-	1	-	-
Germany	-	1	-	-

Italy	-	1	-	-
Japan	-	-	*1	-
Netherlands	-	2	-	-
Switzerland	-	1		-
USA	1	21		1

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Eastern Equine Encephalitis (EEE)

USA



One case of EEE with a co-infection of WNV was reported on a premises in Florida in a five-year-old Paint Horse gelding. Clinical signs included depression, pyrexia and incoordination.

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

Canada



One outbreak of EHV-1 neurological disease with two cases was reported on a premises in Quebec. One vaccinated animal had severe disease and had to be euthanased. The recent introduction of a new horse onto the premises without prior quarantine was identified as one of the risk factors responsible for this outbreak.

Czechia



One outbreak of EHV-1 neurological disease was reported on a premises in Prague. The index case presented recumbent and was subsequently euthanased with no additional testing conducted. A horse in the same barn presented with swollen hindlimbs, mild lethargy, pyrexia and neurological signs and was euthanased. This case was confirmed positive by PCR. Six foals also housed in the same barn, two subclinical cases in another barn on the premises and a case that was transported with the second neurological case were also confirmed positive for EHV-1.

Finland



One outbreak of EHV-1 neurological disease was reported in two animals, 19-year-old and 16-year-old Warmblood mares, on a premises in Sipoo, Finland. Clinical signs included pyrexia and neurological signs. Positive diagnoses were confirmed by PCR on nasopharyngeal swabs.

Germany



One case of EHV-1 neurological disease was reported on a premises in Baden-Wurtemberg. Positive diagnosis was confirmed by PCR on a nasopharyngeal swab and serology. The animal was euthanased.

Italy



One case of EHV-1 neurological disease was reported on a premises in the province of Lucca, Toscana.

Netherlands



Two outbreaks of EHV-1 neurological disease were reported with one with eight cases and one with two cases on premises in Gelderland and South Holland. Clinical signs included pyrexia, limb oedema and paralysis. Two of the animals in the first outbreak and one of the animals in the second outbreak were euthanased. Positive diagnoses were confirmed by PCR on nasopharyngeal swabs and/or EDTA blood in the first outbreak and PCR on nasopharyngeal swabs in the second.

Switzerland



One case of EHV-1 neurological disease was reported on a premises in the canton of Vaud. Clinical signs included pyrexia and central nervous system signs. Positive diagnosis was confirmed on a rapid nasal swab test.

USA



Twenty-one outbreaks of EHV-1 neurological disease were reported with one outbreak with 40 cases (four cases of EHM and 36 cases with pyrexia only), one outbreak with 35 cases (three cases of EHM and 32 cases of pyrexia only), one outbreak with 27 cases (three cases of EHM and 24 cases with pyrexia only), one outbreak with 23 cases (two cases of EHM and 21 cases with fever only) one outbreak with three cases (one case with EHM and two cases with pyrexia and mild clinical signs) – all of these outbreaks were on premises in California. There were a further two outbreaks with two cases and 14 outbreaks with single cases on premises in California, Connecticut, Florida, Indiana, Maryland, Minnesota, Nebraska, Pennsylvania, Texas, Washington and Wyoming.

Tetanus

Japan

 *One case of tetanus was reported. Positive diagnosis was confirmed by Shiga Livestock Hygiene Service Center.

Rabies

USA



One case of rabies was reported in an unvaccinated two-year-old Grade Horse mare on a premises in Oklahoma. Clinical signs included hindlimb ataxia, recumbency and central nervous system signs. The animal was euthanased.

Miscellaneous Diseases

Country	EIA	EVA	Leptospirosis	Piroplasmosis
Canada	2	-	-	-
Finland	-	-	-	1
France	-	-	1	-
Italy	1	1	-	-
Switzerland	-	-	-	-
USA	6	-	-	-

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Equine Infectious Anaemia (EIA)

Canada



Two outbreaks of EIA were reported with single cases in each on separate premises in Alberta. Both animals had been tested to fulfil an export requirement. No clinical signs were noted at the time of sampling.

Italy



One case of EIA was reported in a mule on a premises in the province of Rome, Lazio.

USA



Six outbreaks of EIA were confirmed with one outbreak with three cases, one outbreak with two cases and four with single cases on premises in Arizona, California and Texas.

Equine Viral Arteritis (EVA)

Italy



One case of EVA was reported on a premises in the province of Palermo, Sicily.

Leptospirosis

France

 One case of leptospirosis was reported in a three-year-old Quarter Horse filly on a premises in Orne. Positive diagnosis was confirmed by PCR on aqueous humor.

Piroplasmosis

Finland

 One case of piroplasmosis was reported in a seven-year-old Lusitano gelding, imported 12 months previously, on a premises in Vihti. Positive diagnosis was confirmed by PCR.