International Collating Centre: Summary Report

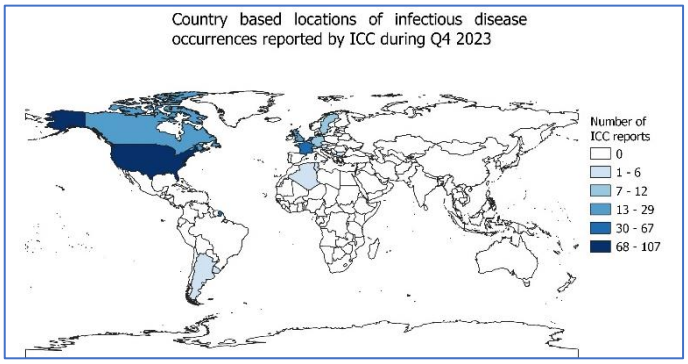
(1 October to 31 December 2023)

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@vet.cam.ac.uk to receive these. There is also a website available that provides an interactive interface of these infectious disease reports and can be used to view current outbreak reports, https://equinesurveillance.org/iccview/.

This article provides a summary of international disease outbreaks during the fourth quarter of 2023. 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 a hashtag symbol (#) 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.



During Q4 2023, the ICC shared 303 interim outbreak reports obtained from 16 countries (shaded on the map). Of specific diseases/infections reported, strangles (n=85), West Nile virus (n=62) and Equine Herpes virus-4 (n=51) had the highest number of reports.

Reproductive Diseases

Country	CEM	EHV-1
Germany	1	-
Japan	-	#3
Netherlands	-	2
South Africa	-	#1

#some cases reported by ICC after the quarter end

Contagious Equine Metritis (CEM)

Germany

One case of CEM was reported in an Icelandic stallion on a premises in North Rhine-Westphalia. Positive diagnosis was confirmed by PCR on genital swabs (glandular fossa, urethral sinus and surface of prepuce).

Equine Herpes Virus-1 (EHV-1) abortion

Japan

#Three outbreaks of EHV-1 abortion with single cases in vaccinated animals were reported after the quarter end. Positive diagnoses were confirmed by LAMP on fetal tissue.

South Africa

#One case of EHV-1 abortion was reported on a premises in the Western Cape, after the quarter end.

Netherlands

Two outbreaks of EHV-1 abortion with single cases in each were reported on premises in Friesland and North Holland, with the premises in North Holland having multiple resident pregnant mares. Positive diagnoses were confirmed by PCR.

Respiratory Conditions

Country	EHV	EHV-1	EHV-4	Influenza	*R. equi*	Strangles
Canada	-	-	-	1	-	9
France	-	-	18	1	2	11
Germany	-	-	1	-	-	-
Netherlands	-	-	17	4	-	29
South Africa	-	#5	#2	-	-	-
Sweden	-	#6	-	2	-	2
Switzerland	-	-	1	-	-	2
UK	-	-	13	4	-	-
USA	1	-	-	2	-	35

#some cases reported to ICC after the quarter end

Equine Herpes Virus (EHV) Respiratory Infection

United States of America

One case of EHV respiratory infection (type not provided) was reported on a premises in Bedford County, Tennessee. Control measures including voluntary quarantine were put in place.

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

Sweden

Six outbreaks of EHV-1 respiratory infection were reported. One outbreak involved a single case on a premises in Östergötland County, one outbreak with two cases on a premises in Västra Götaland County and one outbreak with the number of cases not reported on a premises in, Vasternorrland County. Clinical signs included: cough, pyrexia and unilateral nasal discharge. Positive diagnoses in two of the cases were confirmed by PCR on nasal swabs. #Three outbreaks with single cases in each were reported after the quarter end on separate premises in Västmanland County and Västra Götaland County. Positive diagnoses were confirmed by PCR on nasal swabs.

South Africa

#Five cases of EHV-1 infection were reported in the following provinces: Gauteng (three cases), Kwa-Zulu Natal (one case) and North West Province (one case), after the quarter end.

Equine Herpes Virus (EHV-4) Respiratory Infection

France

Eighteen outbreaks of EHV-4 respiratory infection were reported. Fifteen of the outbreaks involved single cases on premises in Calvados, Cote-d'Or, Haute-Garonne, Loire-Atlantique, Manche, Mayenne, Morbihan, Orne, Puy-de-Dome and Yvelines. Three of the outbreaks involved two cases on premises in: Aveyron and Calvados. Clinical signs included: cough, lymphadenopathy, nasal discharge and pyrexia. Positive diagnoses were confirmed in the majority by PCR on nasophayrngeal swabs.

Germany

One case of EHV-4 respiratory infection was reported in a six-year-old gelding on a premises in North Rhine-Westphalia. Clinical signs included: pyrexia and ataxia. Positive diagnosis was confirmed by PCR on a nasal swab.

Netherlands

Seventeen outbreaks of EHV-4 respiratory infection were reported with single cases in the majority on premises as follows: Gelderland, Friesland, Limburg, North Brabant, North Holland, South Holland, Overijssel and Utrecht. Positive diagnoses were confirmed by PCR.

South Africa

#Two cases of EHV-4 respiratory infection were reported on premies in Gauteng after the quarter end.

Switzerland

One case of EHV-4 respiratory infection was reported on a premises in the Canton of Geneva. The case had no clinical signs. Positive diagnosis was confirmed by PCR.

UK

Thirteen outbreaks of EHV-4 respiratory infection were reported with single cases in 11 of the outbreaks on premises in Cambridgeshire, Cheshire, Gloucestershire, Hertfordshire, Lincolnshire, North Yorkshire, South Western England, Stirling, West Sussex and Wiltshire and two outbreaks with two cases in each on premises in: Falkirk and Wiltshire. Clinial signs included: dry/harsh cough, inappetence, lethargy, lymphadenopathy, mucopurulent nasal discharge, ocular discharge and serous nasal discharge. Three outbreaks had cases with a co-infection of *Streptococcus zooepidemicus.* Ten outbreaks were confirmed by PCR on nasopharyngeal or nasal swabs, one outbreak was confirmed by PCR on guttural pouch and nasal washes and one outbreak was confirmed by LAMP (Loop-mediated isothermal amplification) on a nasopharyngeal swab.

<u>Equine Influenza (EI)</u>

Canada

One case of EI was reported on premises in the Regionaly Municipality of Durham, Ontario. Clinical signs included: persistent cough, mucopurulent nasal discharge and pyrexia. Several other animals on the premises had clinical signs consistent with viral respiratory infection.

France

One case of EI was reported on a premises in Mayenne. Clinical signs included: pyrexia; cough and nasal discharge. Positive diagnosis was confirmed by PCR on a nasal swab.

Netherlands

Four outbreaks of EI were reported with single cases in each on premises in Drenthe, North Brabant and Overijssel. Positive diagnoses were confirmed by PCR.

Sweden

Two outbreaks of EI were reported on premises in Skane County and Vastermanland County. The outbreak in Vastermanland County involved an unvaccinated animal recently imported from the UK.

UK

Four outbreaks of EI were reported. Three with single cases on premises in Norfolk, Lincolnshire and Staffordshire. One outbreak had two cases with both affected animals having a co-infection with *Streptococcus zooepidemicus* on a premises in Northumberland. Clinical signs included: cough, inappetence, lethargy, lymphadenopathy, nasal discharge, pyrexia and ocular discharge. Positive diagnoses were confirmed by PCR on nasopharyngeal swabs.

USA

Two outbreaks of EI were reported with single cases in each on premises in Tennessee and Washington.

Rhodocuccus equi

France

Two outbreaks of *Rhodocuccus equi* were reported with single cases in each on premises in Manche and Rhone. Positive diagnoses were confirmed by PCR on trachael wash in one case.

Strangles

Canada

Nine outbreaks of strangles were reported. Six outbreaks had single cases, two outbreaks had two cases and one outbreak had five cases and all outbreaks were on premises in Ontario. Clinical signs included: nasal discharge, pyrexia, submandibular abscesses and one case had pupura hemorrhagica.

France

Eleven outbreaks of strangles were reported. Nine outbreaks involved single cases on separate premises in Ain, Correze, Haute-Garonne, Haute-Savoie, Isere, Pas-de-Calais, Rhone and Sarthe. Two outbreaks involved two cases on premises in: Charente-Maritime and Cote-d'Or. Clinial signs included: cough, pyrexia, lymphadenopathy and nasal discharge. Positive diagnoses were confirmed by PCR on nasopahryngeal swabs/swabs/guttural pouch washes.

Netherlands

Twenty-nine outbreaks of strangles were reported on premises in Drenthe, North Brabant, North Holland, Overijssel, South Holland, Utrecht and Zeeland. Positive diagnoses were confirmed by PCR.

Sweden

Two outbreaks of strangles were reported on premises in Skane County and Sodermanland County.

Switzerland

Two outbreaks of strangles involving single cases were reported on separate premises in the Canton of Lucerne. Clinical signs included: lymphadenopathy, myopathy, pyrexia, respiratory tract signs and submandibular lymphadenopathy. Positive diagnoses were confirmed by PCR.

USA

Thirty-five outbreaks of strangles were reported, 32 of which involved single cases on premises in California, Florida, Kansas, Michigan, Mississippi, Tennessee, Washington and Wisconsin. Two outbreaks involved two cases on premises in Michigan and Washington and one outbreak involved three cases on a premises in Pennsylvania. Clinical signs included: difficulty swallowing, intermandibular abscess, lethargy, nasal discharge, ocular discharge, pyrexia, severe nasal discharge, swelling under jaw, submandibular abscess and submandibular lymphadenopathy.

Gastrointestinal Diseases

Country	Equine Coronavirus	Rotavirus	*Salmonellosis*
Argentina	-	1	-
Canada	-	-	2
Netherlands	2	-	7
USA	-	-	1

#some cases reported by ICC after the quarter end

Equine Coronavirus

Netherlands

Two outbreaks of Coronavirus were reported on premises in Friesland and Overijssel. Positive diagnosis was confirmed by PCR.

Rotavirus

Argentina

One outbreak of Rotavirus A foal diarrhoea was reported in two vaccinated animals on a premises in Argentina. Positive diagnoses were confirmed by PCR.

Salmonellosis

Canada

Two outbreaks of salmonellosis with single cases in each were reported on premises in Quebec. Clinical signs included: pyrexia and diarrhoea.

Netherlands

Seven outbreaks of salmonellosis were reported on premises in Friesland, Utrecht and Overijssel. Positive diagnoses were confirmed by PCR.

USA

One case of salmonellosis was reported on a premises in Maryland. Clinical signs included: diarrhoea and pyrexia.

Neurological Diseases

Country	Borna	EEE	EHV-1	EHV-4	Rabies	WEE	WNV
Algeria	-	-	-	-	-	-	5
Argentina	-	-	-	-	-	#Multiple	-
Austria	-	-	-	-	-	-	1
Canada	-	7	5	-	-	-	5
France	-	-	-	-	-	-	24
Germany	-	-	-	-	-	-	#7
Netherlands	-	-	3	-	-	-	-
South Africa	-	-	#1	-	-	-	-
Sweden	-	-	1	-	-	-	-
Switzerland	1	-	-	-	-	-	-
Tunisia	-	-	-	-	-	-	1
USA	-	14	7	1	1	-	Multiple
Uruguay	-	-	-	-	-	1	-

#some cases reported by ICC after the quarter end

Borna

Switzerland

One case of Borna disease was reported on a premises in the Canton of Braubunden. Non-specified central nervous system signs (CNS) were reported and positive diagnosis was confirmed at post-mortem through the identification of Borna disease viral DNA in CNS tissue.

Eastern Equine Encephalitis (EEE)

Canada

Seven outbreaks of EEE, each involving single cases, were reported on separate premises in Ontario, and Quebec. Clinical signs included: ataxia, depression, dullness, elevated respiratory rate, icteric mucous membranes, inappetence, neurological signs, pyrexia, respiratory signs and recumbency and inability to rise, seizing and staggering.

USA

Fourteen outbreaks of EEE, each involving single cases, were reported on separate premises in Arizona, Connecticut, Florida, Maine, New Jersey and New York. Clinical signs included: ataxia affecting fore and hindlimbs, cerebral signs, depression, disorientation, facial paralysis, falling, head pressing and incoordination.

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

Canada

Five outbreaks of EHV-1 neurological disease, each involving single cases, were reported on separate premises in Nova Scotia and Ontario. Clinical signs included: ataxia, dysuria, neurological signs nystagmus and recumbency.

Netherlands

Three outbreaks of EHV-1 neurological disease were reported on premises in Gelderland, North Holland and North Brabant. Clinical signs included: ataxia, colic, difficulty urinating, hypotonia of the tail, leg oedema and pyrexia. Positive diagnoses were confirmed by PCR.

South Africa

#One case of EHV-1 neurological disease was reported on a premises in Gauteng after the quarter end.

Sweden

One case of EHV-1 neurological disease was reported on a premises in Skane County. The premises contained approximately 30 horses of different breeds that were stabled indoors and free ranging outdoors, including pregnant mares. Most horses kept indoors presented with pyrexia during a 1-2 week period, but none of the free ranging horses outdoors were affected. No samples were submitted during this period. One week later a horse with pyrexia developed neurological signs of ataxia and sensitivity to stimuli and EHV-1 was confirmed with a positive PCR on EDTA blood, but a nasal swab was PCR-negative.

USA

Seven outbreaks of EHV-1 neurological disease were reported. Four outbreaks involved single cases on premises in; Maine, Missouri, Nevada and Pennsylvania. Two outbreaks involved two cases on premises in; Illinois and Oregon and one case involved three cases on a premises in Virginia. Clinical signs included: ataxia, cough, decreased coordination, encephalopathy, inability to stand, inappetence, lethargy, limb weakness, neurological signs, paresis, pyexia, recumbency, ventral oedema and urinary incontinence.

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

USA

One case of EHV-4 neurological disease was reported on a premises in California. Clinical signs included: anorexia, hindlimb ataxia, other neurological signs and pyrexia.

Rabies

USA

One case of rabies was reported on a premises in Tennessee.

Western Equine Encephalitis (WEE)

Argentina

#Multiple outbreaks of WEE were reported after the quarter end. This is a recurrence of an eradicated disease (not seen in the region since 1988). Clinical signs included: weakness, incoordination and drooping head. Samples were taken and sent for diagnosis, confirming the presence of an alphavirus. Specific additional laboratory tests confirmed equine encephalomyelitis (Western). To date, there have been

approximately 1690 cases and 438 deaths. Positive diagnoses were confirmed by nested RT PCR and RT PCR.

Uruguay

DSA Technicians attended suspicious cases of WEE on several rural premises in Uruguay. Samples were taken and on 1 December 2023 and a case of WEE was confirmed on a premises in Salto. Clinical included: nervousness, convulsions, lateral recumbency, hypersensitivity, pyrexia, tachypnoea and tachycardia. The DILAVE continued to process samples and several areas were reporting animals with clinical signs.

West Nile Virus (WNV)

Algeria

Five outbreaks of WNV were reported with four outbreaks involving single cases on premises in: Barika, Doucen, El hadjab and Sisi Amrane and one outbreak involving two cases on a premises in Djamaa. Positive diagnoses were confirmed by ELISA.

Austria

One case of WNV was reported on a premises in Burgenland, Austria.

Canada

Five outbreaks of WNV were reported with single cases in each on premises in Ontario and Quebec. Clinical signs included: acute neurological signs, altered mental state, ataxia, facial paresis, head tilt, Horner's syndrome, hypersalivation, localised sweating, muscular fasciculations, nystagmus, stiffness and weight loss.

France

Twenty-four outbreaks of WNV were reported. Twenty-two outbreaks involved single cases on premises in; Bouches-du-Rhone, Charente-Maritime, Haute-Corse, Gers and Gironde, with two of the cases having a co-infection with piroplasmosis. One outbreak had two cases and one outbreak had eight cases, both on premises in Gironde. Clinical signs included: ataxia, difficulty moving, exhaustion, fatigue, inability to rise, neurological signs, paresis, pyrexia, recumbency and tremors. In the majority positive, diagnoses were confirmed by ELISA.

Germany

Seven outbreaks of WNV were reported with single cases in each on premises in Brandenburg, Lower Saxony, Saxony and Saxony-Anhalt Positive diagnoses were confirmed in two cases by ELISA. #Two of these cases were reported after the quarter end.

Tunisa

One outbreak of WNV was reported on a premises in Ariana. Clinical signs included: convulsions and paralysis. Positive diagnosis was confirmed by PCR.

United States of America

Multiple outbreaks of WNV were reported with single cases on premises in California, Delaware, Florida, Kentucky, Maine, Michigan, Mississippi, New York, Oklahoma, South Carolina, Tennessee, Texas, Utah, Washington and Wisconsin. Clinical signs included: anorexia, ataxia, blindness, cranial nerve deficits, choke, convulsions, depression, head shaking, hypersensitivity, incoordination, muscle fasciculations, nasal discharge, proprioceptive deficits in front limbs, pyrexia, trembling and weakness in hindlimbs.

Country	AHS	Atypical myopathy	Equine corona virus	EIA	Glanders	Piroplas-mosis	Pigeon fever	VS
Armenia	-	-	-	-	1		-	-
Belgium	-	31	-	-	-	-	-	-
Bulgaria	-	-	-	1	-	-	-	-
Canada	-	-	-	2	-	-	-	-
France	-	68	-	-	-	-	-	-
Germany	-	1	-	-	-	-	-	-
Netherlands	-	1	1	-	-	-	-	-
South Africa	#4	-	-			#64		
Switzerland	-	1	-	-	-	-	-	-
USA	-	-	-	11	-	-	1	Multiple

#some cases reported by ICC after the quarter end

African Horse Sickness (AHS)

South Africa

#Four cases of AHS were reported on premises in Gauteng, after the quarter end. It was noted that AHS is endemic in South Africa except in the AHS controlled areas in the Western Cape Province.

Atypical Myopathy

Belgium

Thirty-one cases of atypical myopathy were reported on premises in Belgium. These cases were declared through the University of Liege's atypical myopathy surveillance network.

France

Sixty-eight cases of atypical myopathy were reported on premises in France. These cases were declared through the Universit of Liege's atypical myopathy surveillance network.

Germany

One case of atypical myopathy was reported on on the Swiss/Germany border. Positive diagnosis was confirmed by clinical diagnosis.

Netherlands

One case of atypical myopathy was reported in the Netherlands. This case was declared through the University of Liege's atypical myopathy surveillance network.

Switzerland

One case of atypical myopathy was reported on a premises in Switzerland. This case was declared through the University of Liege's atypical myopathy surveillance network.

Equine Coronavirus

Netherlands

One outbreak of equine coronavirus, involving two cases, was reported on a premises in Utrecht. Positive diagnoses were confirmed by PCR.

Equine Infectious Anaemia (EIA)

Bulgaria

One case of EIA was reported on a premises in Valchedram. Positive diagnosis was confirmed by ELISA.

Canada

Two outbreaks of EIA were reported. One outbreak involved a single case on a premises in Thompson-Nicola Subdivision B.British Columbia and one outbreak involved two cases on premises in Grandview County, Manitoba.

USA

Eleven outbreaks of EIA were reported. Nine outbreaks involved single cases on premises in California, Georgia, Oklahoma and Texas. Two outbreaks involved two cases on premises in California and Texas. In three outbreaks, the affected animals were euthanased.

Glanders

Armenia

One case of Glanders was reported on a premises in Kotayk Region. Positive diagnosis was confirmed by bacterial culture.

Pigeon Fever

USA

One case of Pigeon Fever was reported on a premises in Snohomish County, Washington.

Piroplasmosis

South Africa

#Sixty-four cases of piroplasmosis, which is regarded as endemic in South Africa, were reported from seven of the nine provinces, after the quarter end, as follows: *B.caballi* cases: Gauteng (five cases), Western Cape (one case) and Limpopo (one case) – *T. equi* cases: Gauteng (27 cases), Kwa-Zulu Natal (one case), Mpumalanga (12 cases), Northern Cape (one case), North West Province (one case), Western Cape (14 cases), and Limpopo (one case).

Vesicular Stomatitis

USA

Since the start of the outbreak 317 VSV-affected premises have been identified (97 confirmed positive, 220 suspect) in three states, California, Nevada, and Texas. Three hundred and seven of these premises have had only equine species clinically affected, seven premises had only clinically affected cattle (Fresno County, San Diego County, and Santa Barbara County, California), two premises had both equine and cattle clinically affected (Fresno County and Mariposa County, California), and one premises had clinically affected rhinoceros (San Diego County, California). Texas identified two affected premises (two confirmed positive) in two counties (Maverick and Shackelford Counties). Nevada identified one affected premises (one confirmed positive) in one county (White Pine County, Nevada). Of the 317 total VSV-affected premises, 312 premises have completed the quarantine period with no new clinical cases and have been released from quarantine. Five (5) premises remain quarantined in California.

Serological Report for 2023
Animal & Plant Quarantine Agency(APQA) / KRA
Republic of Korea

A serological survey was performed for African Horse Sickness (AHS), Vesicular Stomatitis (VS), Equine Infectious Anemia (EIA), Equine Viral Arteritis (EVA), Japanese Encephalitis (JE), West Nile Fever (WNF) and Equine Influenza

(EI) to investigate the serological evidence for the possible presence of the diseases listed above in horses raised in South Korea.

Serum samples of **1,332** horses including Thoroughbred stallions, broodmares, racehorses, ponies, riding horses, etc were collected. Sample collections were performed by the Korea Racing Authority (**KRA**) and the tests was conducted by the Animal & Plant Quarantine Agency (**APQA**) of South Korea.

African Horse Sickness (AHS)
All samples tested negative with commercially available ELISA test kits (INGENASA, Spain) and VN test.
All *Culicoides* spp. collected from five locations of KRA tested negative for antigen.

Vesicular Stomatitis (VS)
All samples tested negative with commercially available ELISA test kits and VN test.

Equine Infectious Anemia (EIA)
All samples tested negative with commercially available ELISA test kits and AGID test.

West Nile Fever (WNF)
All samples tested negative with commercially available IgM Antibody Capture ELISA test kits and VN test.

Equine Viral Arteritis (EVA)
All samples tested negative with commercially available ELISA (IDVET; Spain) and VN test.

Japanese Encephalitis (JE)
Viral Neutralization tests were performed and 1,138 samples of 1,331 (85.5%) tested positive for antibody. All seropositive results were due to vaccination.

Equine Influenza (EI)
Haemagglutination Inhibition tests were performed and 1,253 samples of 1,331(94.1%) tested positive for antibody. All seropositive results were due to vaccination.

A serological survey for Piroplasmosis in 2023
A serological survey for piroplasmosis was conducted from the total 376 serum samples of various Thoroughbred stallions, broodmares, racehorses, ponies, riding horses, etc. stabled in KRA racetracks and both KRA and private farms in the first and second half of year. The test was performed by Korea Racing Authority (KRA) of Republic of Korea.

Piroplasmosis *(B. Caballi, T. equi)*
A commercially available cELISA (Antibody test kit; VMRD USA; OIE authorized method) was performed and all samples of 376 tested negative (0%) for *B. Caballi* and *T. equi.*

A serological survey for Surra in 2023
A serological survey for Surra was conducted from the total 376 serum samples of various Thoroughbred stallions, broodmares, racehorses, ponies, riding horses, etc. stabled in KRA racetracks and farms. The test was performed by Korea Racing Authority (KRA) of Republic of Korea.

Surra *(T. evansi)*
All samples tested negative(0%) with commercially available CATT/T.evansi kit (AT&-PU, Belgium).

2023 PCR survey for Contagious Equine Metritis (CEM)
KRA conducted the examination for CEM in 2,119 samples from Thoroughbred stallions and broodmares registered in the Korean studbook (http://studbook.kra.co.kr).

Contagious Equine Metritis
One sample of 2,119 (0.04%) tested positive by qPCR on venereal swabs, which compared with all samples of 2,102 tested negative in 2022.

Active surveillance of equine infectious anemia among racehorses in Japan

Hideki Ito, DVM. Administrator of Japanese Counsel of Equine Health

Since Japanese Ministry of Agriculture, Forestry and Fisheries, or JMAFF, concluded that Japan eradicated equine infectious anemia (EIA) in 2017, the Japanese horseracing industry consisting of Japan Racing Association, or JRA, and the racecourses held by local governments have been implementing the voluntary sampling surveillance for EIA since 2020. In 2023, we randomly extracted 60 horses from the racehorses kept in each training center or racecourse with population size ranging from approx. 300 to 2000 horses and tested by agar gel immunodiffusion, or AGID, test with 95% confidence level (Cannon and Roe, 1982. Livestock disease surveys, a field manual for veterinarians) on the serum samples taken in fall 2023.

Table 1 shows the results of the surveillance. No EIA positive horses were detected, suggesting that the disease prevalence of EIA in Japanese racehorse population is less than 5 % with 95% confidence level.

Table 1 shows the results of EIA surveillance with AGID test in 2023.

Training center (TC) /Racecourse (RC)	JRA/municipal government	Sampling size	Positive horses
Miho TC	JRA	60	0
Ritto TC	JRA	60	0
Obihiro RC	Hokkaido	60	0
Monbetsu RC	Hokkaido	60	0
Morioka RC	Iwate	60	0
Mizusawa RC	Iwate	60	0
Oi RC	Tokyo	60	0
Urawa RC	Saitama	60	0
Funabashi RC	Chiba	60	0
Kawasaki RC	Kanagawa	60	0
Kanazawa RC	Ishikawa	60	0
Kasamatsu RC	Gifu	60	0
Nagoya RC	Aichi	60	0
Sonoda RC	Hyogo	60	0
Kochi RC	Kochi	60	0

Surveillance of contagious equine metritis in Japan

Hideki Ito, Administration of Japanese council of equine health

The first outbreak of contagious equine metritis (CEM) occurred in the Hidaka-Iburi district of Hokkaido, which is a major area for Thoroughbred breeding, in Japan in 1980. Three hundred and twenty-one mares and stallions were diagnosed as positive for CEM by the isolation of *Taylorella equigenitalis* during that year. CEM eradication program started in 2001 with PCR test. All the registered Thoroughbred stallions and mares including teasers and those not for breeding were investigated by the PCR test prior to the breeding season every year. The results of the program were summarized in Table 1. The positive stallions and mares in the program were treated and tested until three consecutive negative PCR-results obtained, or euthanized if it is impossible to overcome the carrier status of the treatment. After scientific evaluation of the epidemiological data by the experts in 2011, the Liaison Council for Prevention and Control of Equine Infectious Diseases in Japan concluded that CEM had been eradicated from Japan

by 2010.

Table 1. Results of the eradication program for CEM with PCR test in Japan.

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Registered stallions	411	412	389	351	331	305	281	282	311	269
Registered mares	12411	12276	11499	11130	10670	10297	10253	10263	9872	10765
PCR-tested horses	12356	12762	12124	12152	11769	12650	12738	12261	12305	11796
Positive stallions	1	0	0	0	0	0	0	0	0	0
Positive mares	10	4	2	1	1	0	0	0	0	0

Some of the stallions and mares had multiple PCR testing each year. Two in 2001, one in 2002, 2004, and 2005 PCR-positive mares were culled and the other mares and the stallions were treated. Numbers of registered stallions and mares are total true head counts of Thoroughbreds registered for breeding for racing in Japan.

Since 2011, the extraction surveillance has been implemented. While all the stallions had to be tested with negative results by PCR test at least once before breeding seasons and most of them also were tested again after breeding seasons, all the mares were at least once tested before the first mating of life and each time they presented clinical signs of endometritis. No positive cases have been found until 2022 (Table 2). Japanese breeding and racing authorities will continue to carry out this surveillance together and report to ICC.

Table 2. Results of the extraction CEM surveillance by PCR test.

		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Registered stallions		253	240	263	230	223	232	248	236	241	267	280	286
PCR-tested stallions		425	479	459	465	509	467	475	465	449	480	484	497
Tested mares	Before first mating of life	906	1024	1170	1067	1072	1133	1204	1196	1292	1258	1183	1195
	Presenting endometritis	23	1	277	328	287	303	285	267	256	318	309	317
Positive stallions		0	0	0	0	0	0	0	0	0	0	0	0
Positive mares		0	0	0	0	0	0	0	0	0	0	0	0