EQUINE DISEASE SURVEILLANCE

2025 Q1 QUARTERLY REPORT

Produced by:

EIDS Equine Infectious Disease Surveillance

UNIVERSITY OF CAMBRIDGE Department of Veterinary Medicine

EQUINE DISEASE SURVEILLANCE QUARTERLY REPORT

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INTRODUCTION

Welcome to the equine disease surveillance report for the first quarter of 2025, produced by Equine Infectious Disease Surveillance (EIDS), based in the Department of Veterinary Medicine at the University of Cambridge.

National disease data are collated through multiple diagnostic laboratories and veterinary practices throughout the United Kingdom, providing a more focused insight into the occurrence of equine infectious disease. Due to the global mixing of the equine population through international trade and travel, collaboration on infectious disease surveillance between countries occurs on a frequent basis to inform and alert. Both national and international information will be summarised within this report.

Any comments and feedback on the report are welcomed and we encourage contributions on focus articles. To view previous reports, see www.equinesurveillance.org and to receive reports free of charge, via email on a quarterly basis, please contact equinesurveillance@vet.cam.ac.uk.

HIGHLIGHTS IN THIS ISSUE

NEWS ARTICLES:

- Strengthening disease alerts: Tell-Tail expands, but data gaps remain
- Surveillance alert: multidrug-resistant *Rhodococcus equi* detected in Japan

FOCUS ARTICLE:

- "*You're the vet, what do you think?*" Attitudes and experiences with control and prevention of strangles among UK veterinary surgeons

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NOTE:

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. For example, they are influenced by factors such as owner attitude or financial constraints, or are being conducted for routine screening as well as clinical investigation purposes. Consequently, these data do not necessarily reflect true disease frequency within the equine population of UK.

WITH THANKS TO THE FOLLOWING SUPPPORTERS

Department for Environment Food & Rural Affairs

BEVA

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Department of Agriculture, Environment and Rural Affairs

Scottish Government Riaghaltas na h-Alba gov.scot

STRENGTHENING DISEASE ALERTS: TELL-TAIL EXPANDS, BUT DATA GAPS REMAIN

The latest update to Tell-Tail, the text message alert service for UK equine infectious diseases, introduces an abridged version of the endemic disease reporting section from the Equine Quarterly Disease Surveillance Report. This enhancement aims to improve awareness of equine herpes virus (EHV), equine influenza, strangles, equine grass sickness and notifiable disease investigations across the UK. The first iteration of this update was very well received by subscribers, reinforcing the value of accessible disease surveillance information. Tell-Tail, generously provided by Boehringer Ingelheim Animal Health, delivers rapid notifications for outbreaks of equine influenza, EHV-1 pregnancy loss and neurological disease, as well as exotic notifiable diseases in the UK, and now the service includes quarterly updates from the EQDSR. This free service is available to UK-based veterinary surgeons and professional horse keepers, ensuring critical disease updates reach those who need them most. EIDS and the equine community are grateful to Boehringer Ingelheim for their ongoing support in making this essential tool available.

Improving disease awareness and reporting

In Q4 2024, only 18% of EHV-4 cases and 65% of equine influenza cases were reported in official outbreak data. The remaining cases were omitted either due to the submitting veterinary practice not responding to requests for information or horses owners instructing that the anonymous county-level report not be circulated. Incomplete reporting limits the ability to track disease spread and issue timely warnings. Without these data, it becomes difficult to monitor infection patterns, assess the effectiveness of control measures, and reduce the impact of outbreaks.

Call to action for equine vets

The Equine Infectious Disease Surveillance (EIDS) team wishes to highlight the need for better reporting of UK endemic diseases. The process is designed to ensure confidentiality while maximising the availability of essential disease data; all reports remain anonymous, and the wording is approved before circulation.

Veterinary surgeons play a crucial role in national disease surveillance. By submitting timely and accurate case reports, they help strengthen understanding of disease trends and enhance outbreak response efforts. Increased participation will make a real difference in safeguarding equine health across the UK. Those interested in receiving Tell-Tail alerts can sign up at no cost and gain immediate access to vital disease updates, ensuring they stay ahead of potential outbreaks. Register for Tell-Tail text alerts via the sign up page on www.equinesurveillance.org.

MULTIDRUG-RESISTANT *RHODOCOCCUS EQUI* DETECTED IN JAPAN

An international team of researchers coordinated by the University of Edinburgh's Microbial Pathogenomics Laboratory are monitoring the global spread of multidrug-resistant Rhodococcus equi (MDR-RE). In collaboration with Japan Racing Association's Equine Research Institute and Hidaka Training and Research Center, they provide an update below on recent suveillance findings in Japan.

How can you help in the surveillance of MDR-RE?

MDR-RE isolates show high-level resistance to macrolides (8 to 96 µ/ml or above), almost invariably associated with high rifampicin resistance (≥32 µ/ml). If you come across an *R. equi* isolate with such resistance phenotype or if you suspect you are dealing with a case of resistant foal rhodococcosis, please get in touch with us at v.boland@ed.ac.uk

We recently reported on the identification and genomic characterisation of a multidrug-resistant (MDR) variant of the major equine pathogen *Rhodococcus equi* (MDR-RE) [1]. Most of the MDRE-RE isolates analysed so far belong to a specific clonal lineage designated "2287" after the collection number given in Edinburgh to the first fully genetically characterised strain of this *R. equi* subpopulation. MDR-RE 2287 emerged in the US in the late 1990's/early 2000's likely on horse farms where ultrasonographic screening and mass *R. equi* antibioprophylaxis was practiced [2, 3]. The MDR phenotype was conferred by co-acquisition of: (i) a conjugative plasmid, pRErm46, which carries resistance genes to macrolides, lincosamides and streptogramins B [*erm*(46)], streptomycin and spectinomycin (*aadA9* cassette), sulfonamides (*sul1* cassette), and tetracycline [*tetRA*(33) cassette, also conferring low-level resistance to doxycycline]; and (ii) a chromosomal *rpoB*S531F mutation specifying rifampicin resistance [1, 4]. As a result, MDR-RE 2287 is highly resistant to the mainstay therapy of *R. equi* infection in foals [5], based over the last 40 years on co-administration of a macrolide (erythromycin initially, then azythromycin or clarithromycin) and rifampicin [6-8]. Since no antimicrobial alternatives of proven clinical efficacy are available against the difficult-to-treat *R. equi* in foals, MDR-RE 2287 represents a serious threat to Thoroughbred breeding and the equine industry.

MDR-RE spread: slow but steady

After emergence, MDR-RE 2287 has been spreading across horse breeding farms in the US likely conveyed by carrier horses [9]. The first confirmed detection outside the US was a foal isolate recovered in 2016 in Ireland, a major horse-breeding country with active horse import/export with the US. A further 2287 clonal strain with the same genomic signature was isolated in Ireland in 2021 [10], and again in 2023 (unpublished), suggesting that an MDR-RE 2287 subclone might have become locally established. The MDR-RE 2287 epidemiological pattern appears thus to be mirroring that of human pathogenic MDR clones: after the founder event (typically in a health-care establishment, to which horse farms where *R. equi* antimicrobial prophylaxis is applied are comparable in terms of antibiotic pressure) and an initial phase of local spread, these are quickly found in other countries, eventually becoming globally disseminated.

However, since young foal movements in particular are of a much smaller scale compared to human travel, the rate of MDR-RE dissemination is comparatively much slower than for human pathogens.

International surveillance efforts supported by HBLB – detection in Japan

The intrinsic importance of MDR-RE in terms of potential therapeutic failure and fatal outcome is compounded by the fact that the *erm*(46) macrolide resistance determinant can transpose from the pRErm46 resistance plasmid to the bacterial chromosome or the *R. equi* virulence plasmid [1]. Moreover, horizontal transfer of pRErm46 from the 2287 clone to other *R. equi* genotypes is now being detected [5, 9, unpublished observations]. This paints a worrying picture where MDR-RE would get durably established following importation into a horse breeding country. Considering these risks, an international MDR-RE surveillance network involving collaborating laboratories from 13 countries in 5 continents, with Edinburgh as reference laboratory for phylogenomic analysis, was recently launched with support from the Horserace Betting Levy Board (HBLB) [11].

After the identification in Ireland, the MDR-RE surveillance initiative is now reporting the detection of MDR-RE 2287 in Japan, another significant horse breeding country. The strain was recovered in 2022 from a tracheal aspirate form a case of foal pneumonia. Genomic analysis of the Japanese isolate showed that it belongs to a more evolved lineage of the 2287 clone characterized by a pRErm46 plasmid with deleted class I integron (C1I carrying the *aadA9* and *sul1* resistance genes) and the *tetRA*(33) element (tetracycline resistance) - the so-called ΔC1I-*tetRA*(33) variant of pRErm46 [5, 9, 10] (Figure 1). Such MDR-RE isolates are therefore susceptible to streptomycin, spectinomycin, sulfonamides and tetracycline/doxycycline in contrast to the prototypic MDR-RE 2287.

The SNP pattern of the Japanese MDR-RE 2287 ΔC1I-*tetRA*(33) isolate shows it is very closely related to the Irish isolates (and other relatively younger isolates found in the US, not shown), all sharing the ΔC1I-*tetRA*(33) signature (Figure 1). The detection of this same subclonal variant of MDR-RE 2287 in three different continents highlights the potential for the multi-resistant *R. equi* strain to become globally disseminated and the importance of active international surveillance to control its spread.

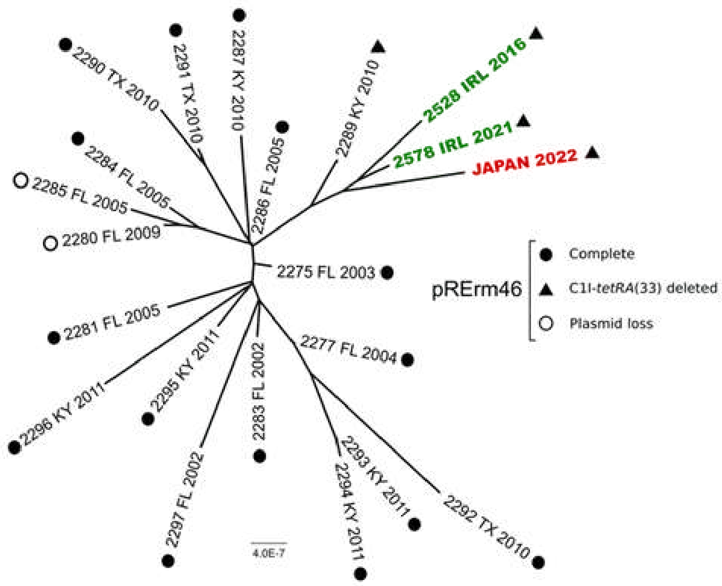

Figure 1: Phylogenetic relationships of isolates of the MDR-RE 2287 clone. Core-genome maximum likelihood phylogeny obtained using SNIPPY v4.6.0 and tree builder IQtree v2.0.7 (substitution model GTR+F+R4). Labels indicate PAM collection number, geographical origin and year of isolation. Irish isolates are in green, the Japanese isolate reported here in red. Symbols indicate the pRErm46 plasmid category as per the inset legend.

Acknowledgements

The authors would like to thank the Horserace Betting Levy Board (HBLB) for the continued support to their research on R. equi genomics and the emerging MDR-RE. Thanks are also due to Dr Richard Newton and the Equine Infectious Disease Surveillance team for their cooperation. We gratefully acknowledge our colleagues at the Irish Equine Centre and the growing network of international collaborators for their willingness to help and for making available isolates for analysis.

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"*YOU'RE THE VET, WHAT DO YOU THINK?*" ATTITUDES AND EXPERIENCES WITH CONTROL AND PREVENTION OF STRANGLES AMONG UK VETERINARY SURGEONS

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Introduction

Strangles is a highly contagious infection in horses caused by the bacterium *Streptococcus equi* (*S. equi*) and has long been a significant concern for equine health and welfare worldwide [1], with outbreaks having serious implications for the equine industry. Veterinary surgeons play a pivotal role in determining the success of disease control and prevention measures, including adoption and implementation of vaccination. With the introduction of a new sub-unit fusion protein vaccine (Strangvac, Dechra) with DIVA ('differentiating infected from vaccinated animals') capability in the UK in 2022, there is a need to better understand factors influencing its adoption in practice so the potential of vaccination in combatting strangles might be optimised.

As part of a University of Cambridge veterinary student research project, a cross-sectional survey was conducted among UK veterinary surgeons between September 2023 and April 2024, with the aim of gaining insights into attitudes toward strangles prevention and control, including vaccination. In particular, the survey looked to assess barriers to vaccine uptake, factors influencing vaccination decisions and the potential for increasing vaccination adoption to ultimately control and prevent or even eradicate disease due to *S. equi* infection. Through better understanding these dynamics, strategies might be developed to promote wider use of the new Strangvac vaccine and enhance strangles management in the UK.

Survey of UK veterinary surgeons

An online survey was developed to gather information on UK veterinary surgeons' geographical and species-specific areas of work, level of clinical experience, current strategies employed for strangles control, and the factors influencing attitudes to vaccination. The survey specifically explored previous use of the submucosally administered, live-attenuated Equilis StrepE vaccine (MSD Animal Health UK LTD) when it was available in the UK and perceptions of the recently released intramuscularly administered Strangvac vaccine (Dechra). A mixed-methods approach was used, incorporating a variety of question formats, including open and closed-ended questions (Table 1).

To objectively classify individual respondents' attitudes toward Strangvac, four binary (yes/no) characteristics were determined based on responses to four survey questions (Qs 11, 18, 21 and 27 in Table 1); these respectively classified individuals as 'supportive of', 'educated about', 'active users of' and 'engaged with' use of Strangvac strangles vaccine. An overall attitude score was created by summing the binary classifications (yes=1, no=0), ranging from four for respondents that were classified as 'supportive', 'educated', 'active', and 'engaged' down to zero for respondents that were classified as none of these.

Table 1: Summary of the 28 survey questions, with responses comprising discrete (shaded grey), multiple options (shaded blue) or free text (shaded white) types.

Information about respondents	**Q1:** What countries of the UK do you practice in?	**Q2:** What counties in England/ Scotland/Wales/ Norther Ireland do you practice in?	**Q3:** What is the current percentage of equine work undertaken by your practice?	**Q4:** How would you describe the population of horses you treat?	**Q5:** When did you graduate?
Current approach to strangles prevention and control questions	**Q6:** Approximately how many cases of Strangles has your practice seen in the last 2 years?	**Q7:** What advice does your practice currently give to yards experiencing a strangles outbreak? – other free text option	**Q8:** What diagnostic testing do you advise in a horse showing clinical signs of strangles? – other free text option	**Q9:** After an outbreak of strangles or before a horse enters a new yard, what diagnostic tests would you advise using? – other free text option	**Q10:** How important would you consider identifying a 'carrier' of strangles after an outbreak or before a horse enters a new yard?
Strangles vaccine questions	**Q11:** Do you advise your clients to vaccinate against strangles? à response informed the 'support' category	**Q12:** Approximately, what percentage of your patients do you vaccinate against strangles? What percent of your clients vaccinate for strangles?	**Q13:** How important do you believe an effective strangles vaccine would be to the equine population of the UK?	**Q14:** For vaccinating against Strangles. Did you use Equilis StrepE when it was available?	**Q15:** What are the main reasons why you might NOT have used Equilis StrepE strangles vaccine?
	Q16: Please select any CLIENT FACTORS which may influence whether or not you vaccinated against strangles using Equilis StrepE. – other free text option	**Q17:** Please select any factors specific to YOU OR YOUR PRACTICE which may influence whether or not you vaccinated against strangles using Equilis Strep E – other free text option			

Table 1 cont…: Summary of the 28 survey questions, with responses comprising discrete (shaded grey), multiple options (shaded blue) or free text (shaded white) types.

Strangvac specific questions	**Q18:** Are you aware of the recent recombinant protein strangles vaccine, Strangvac? à response informed the 'educated' category	**Q19:** Where did you hear about Strangvac? – other free text option	**Q20:** Please explain what you currently know about Strangvac.	**Q21:** Do you use Strangvac? à response informed the 'active' category	**Q22:** Additional info provided about Strangvac… Given this information, do you think you would be likely to consider using the vaccine?
	Q23: Has there been demand for Strangvac from clients?	**Q24:** Have you found Strangvac easier to use compared to other strangles vaccines?	**Q25:** Please describe your experience with Strangvac	**Q26:** What are the main reasons you have not used Strangvac yet? – other free text option	**Q27:** If Strangvac were in the future shown to have cross-protection against Streptococcus zooepidemicus, would this make it more likely that you would use Strangvac? à response informed the 'engaged' category
	Q28: Is there anything you would improve about Strangvac?				

Survey findings

Survey respondents and strangles caseloads

There were 99 veterinary surgeons that completed the survey, providing equine veterinary care across 79 counties of the UK (Figure 1). The highest proportion of respondents graduated in the decade between 2010 and 2019, accounting for 34% (34/99) of the total. Most respondents worked in predominantly equine practices (>75% equine caseload; 84/99), with leisure horses being the most commonly treated population (47% of equine caseload, on average), followed by sports horses (27%), companion or breeding horses (23%), and racehorses (19%).

Perceived annual strangles caseloads varied widely, ranging from zero cases to more than 50 per year. The majority of respondents reported that their practice sees either 1–5 cases per year (34%, 34/99) or 6–10 cases per year (38%, 38/99).

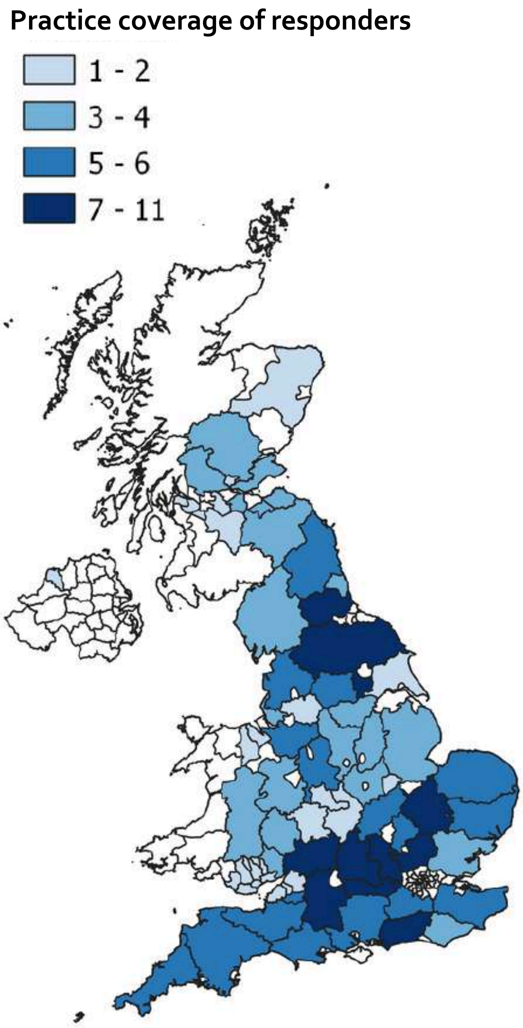


Figure 1: Choropleth map depicting the county-based regions of the UK that questionnaire responders provided equine veterinary care

Approaches to strangles prevention and control

Nearly 80% (78/99) of respondents advised a multi-faceted approach to controlling strangles outbreaks that included: knowing the clinical signs, isolating animals with a high temperature, stopping horse movements and keeping equipment separate (Figure 2). However, notifying a neighbouring premises as part of outbreak management was not selected as advised by more than 20% (21/99) of respondents. Additional free-text responses referred to other strategies including: using a traffic light system for control (n=10), testing of clinical cases and/or contacts (n=7), promoting the Redwings strangles care pack (n=2), reviewing biosecurity practices to prevent future incursions (n=2), and organising yard information evenings with the involvement of neighbouring veterinary practices (n=1). Respondents were also asked about diagnostic sampling methods for clinical cases, with multiple choice options including sampling the nasopharynx (NP), an abscess, or the guttural pouches (GP), combined with the testing modalities available (qPCR and/or culture; Figure 3).

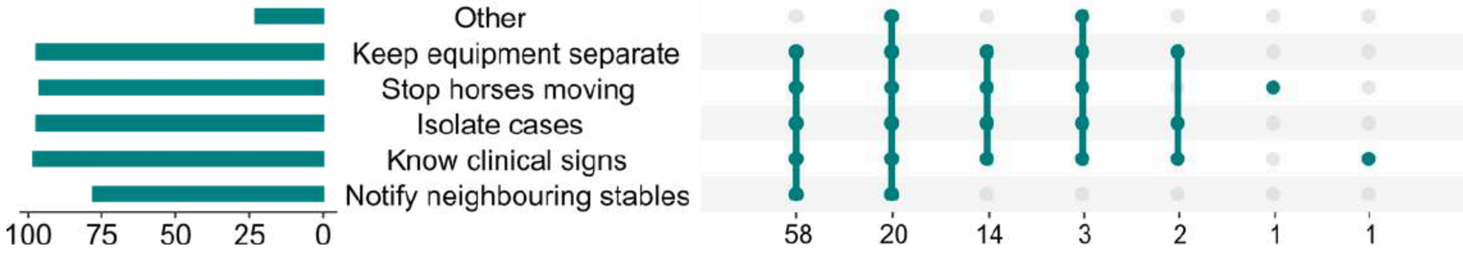


Figure 2: Illustrating the combinations of advisories provided by veterinary surgeons to yards experiencing a strangles outbreak (n= 99). (The number of respondents selecting each combination is indicated by the dots and lines [right], while the aggregate counts for individual control measures are shown by the teal horizontal bars [left])

Nearly all respondents (97%, 96/99) incorporated qPCR into their diagnostic approach. Specifically, 87% (86/99) of respondents would consider qPCR on a nasopharyngeal swab sample, 66% (65/99) would consider qPCR on an abscess sample, and 59% (58/99) conducted qPCR on a guttural pouch wash. In addition, 4% (4/99) of respondents indicated that they would only sample the guttural pouch, without conducting an NP or abscess swab, and 3% (3/99) reported that they might forgo diagnostic testing altogether in certain outbreak situations. Other free text responses included nasal wash (n=1), nasopharyngeal wash (n=2) and serology (n=7) with two respondents specifically stating that serum samples would be paired and interpreted alongside the history.

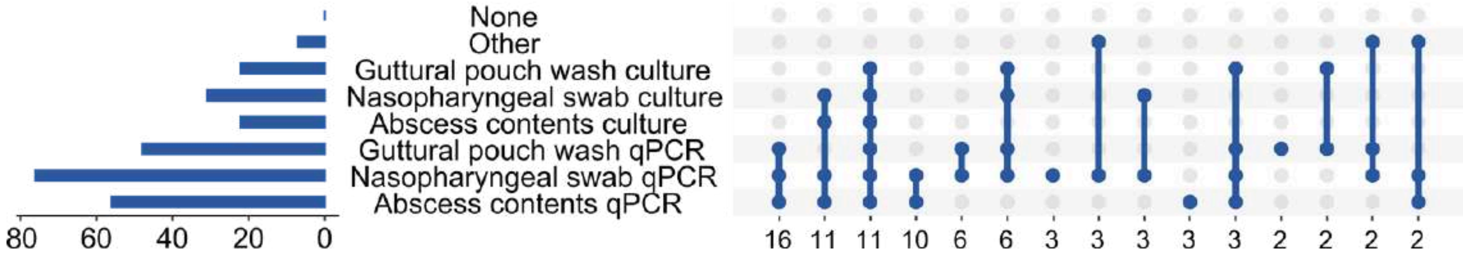


Figure 3: Demonstrating the combinations of diagnostic tests advised by veterinary surgeons for a horse showing clinical signs of strangles (n=99, but noting that not all combinations are shown). (The number of respondents selecting each combination is indicated by the dots and lines [right], while the aggregate counts for individual control measures are shown by the blue horizontal bars [left])

There were 87% (86/99) of respondents that stated the importance of identifying *S. equi* carriers post-outbreak or before entering a new yard as very or extremely important, 10% (10/99) as moderately important and 3% (3/99) as slightly or not at all important. Diagnostics advised after an outbreak or before a horse entered a new yard included serial NP sampling, GP endoscopy and lavage and serology. GP endoscopy and lavage was conducted by 65% of respondents (64/99) with 38 of these respondents also discussing the use of serology in addition (Figure 4). Other free-text responses included: nasal wash qPCR (n=1), 'depends on the situation' (n=2), and serology used post-outbreak rather than pre-movement (n=1). Six respondents preferred GP wash for all pre-movement cases, with some suggesting paired serology with 2-week isolation (n=1) or discussing GP wash vs serology with owners (n=5).

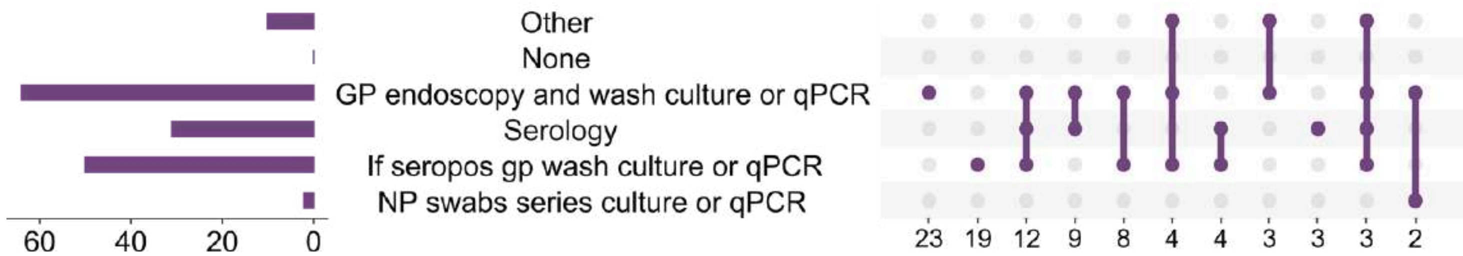


Figure 4: Diagnostic test combinations recommended by veterinary surgeons for strangles outbreak management or pre-entry screening (n=99, but noting that not all combinations are shown). (The number of respondents selecting each combination is indicated by the dots and lines [right], while the aggregate counts for individual control measures are shown by the purple horizontal bars [left])

Strangles vaccination

In response to whether veterinary surgeons advise clients to vaccinate against strangles 18% (18/98) of respondents recommended vaccination as a preventative measure, 4% (4/98) advised vaccination only during an outbreak, and 2% (2/98) suggested it both preventatively and during outbreaks. The majority, 76% (74/98), did not advise strangles vaccination. Regarding vaccination uptake, 91% of vets (48/53) considered that less than 10% of their clients adopted strangles vaccination, with many reporting no Strangvac vaccination in their practice.

Attitudes to and use of Equilis StrepE

There were 38% (38/99) of respondents that had previously used Equilis StrepE with a significant trend (P<0.001) that the longer that veterinary surgeons had been graduated, the more likely they were to be previous users of Equilis StrepE (Table 2).

Table 2: Respondents' decade of graduation and previous use of Equilis StrepE (n=95), showing a statistically significant trend for longer graduated vets more likely to have used Equilis StrepE (Fisher's exact P<0.001).

Decade of graduation	Previous use of Equilis StrepE		Total
	No (%)	Yes (%)	
Before 1979	1 (25%)	3 (75%)	4
1980-1989	3 (33%)	6 (67%)	9
1990-1999	5 (33%)	10 (67%)	15
2000-2009	9 (43%)	12 (57%)	21
2010-2019	29 (88%)	4 (12%)	33
2020-2023	11 (85%)	2 (15%)	13
Total	**58 (61%)**	**37 (39%)**	**95**

Responses provided by survey respondents on their perceptions of clients and veterinary/practice-related reasons for not using Equilis StrepE strangles vaccine are shown in Table 3. The most commonly perceived client-related barriers to using Equilis StrepE were cost (30%), fear of adverse reactions (22%), and a perceived low risk of *S. equi* exposure (25%). Veterinary or practice-related concerns included perceived low vaccine efficacy (30%), issues with submucosal administration (26%), lack of DIVA capability (25%) and short shelf life (20%). These findings highlight a mix of financial, practical and efficacy-related concerns affecting vaccine uptake.

Table 3: Summary of responses on perceived barriers to clients and veterinary surgeons using Equilis StrepE

Reasons for not using Equilis StrepE	Respondents' perceptions of client reasons		Respondents' perceptions of vet/practice reasons	
	n	%	n	%
Cost of call out fee	19	19%	-	-
Cost of vaccine/cost of vaccination for client	30	30%	4*	-
Fear of adverse reactions	22	22%	21	21%
Concern about submucosal administration	21	21%	26	26%
Perceived low risk of *S. equi* exposure	25	25%	15	15%
Vet mistrust	7	7%	-	-
Perceived low vaccine efficacy	8*	-	30	30%
Lack of DIVA capability	-	-	25	25%
Short shelf life	-	-	20	20%
High vaccination frequency	4*	-	4*	-
Insufficient client education/low client interest	3*	-	2*	-
Inconsistent vaccine availability/not stocked or supported by practice	1*	-	2*	-
Supply issues	-	-	2*	-

**Free text 'other' category survey question responses*

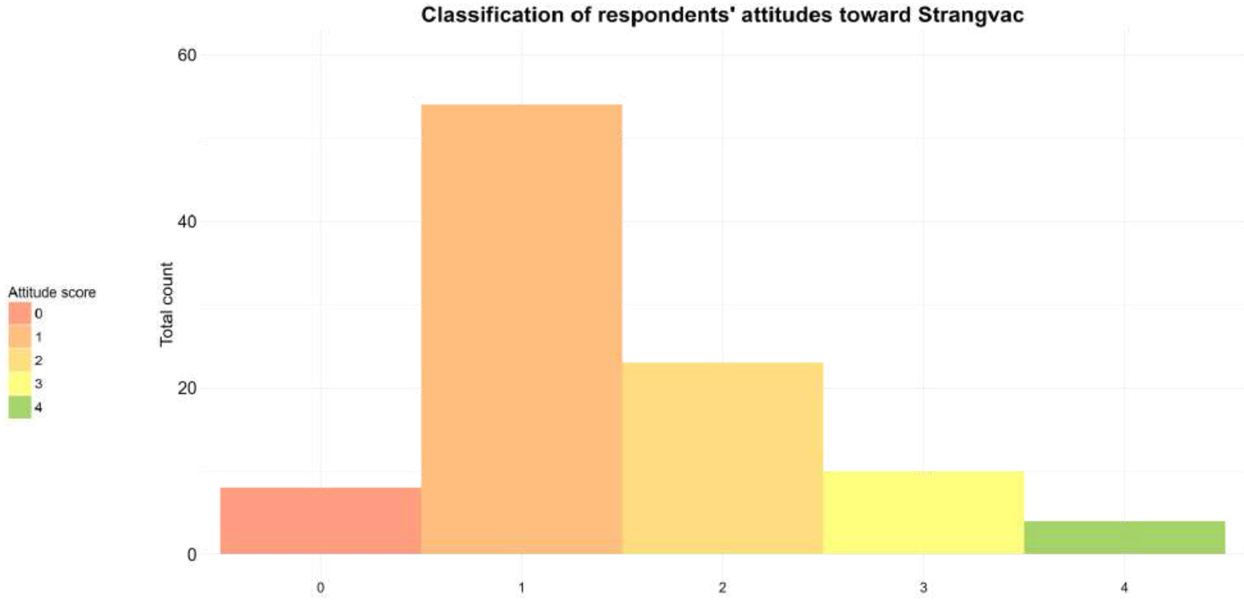
Attitudes to and use of Strangvac

Of responding veterinary surgeons, 84% (83/99) had heard of Strangvac, and for 30% (25/83) of those respondents, awareness was obtained through word of mouth. Additional information sources included drug manufacturer representatives (24%, 20/83), CPD courses (22%, 18/83), articles or journals (21%, 17/83), and social media (1.2%, 1/83). Following the provision of additional information about Strangvac, respondents were asked if they would consider using the vaccine. There were 86 non-responders to this question (87%); but of the 13 responses received, 77% (10/13) answered 'yes' or 'maybe/potentially', while 23% (3/13) answered 'probably not' or 'no'. When asked whether there had been demand for Strangvac from clients, 50% (13/26) of those responding reported some demand, 38% (10/26) reported limited demand, and 12% (3/26) reported no demand. The primary reasons cited for not using Strangvac included lack of client demand (76%, 64/84) and the practice not stocking the vaccine (44%, 37/84). Other reasons included expense (18%, 15/84) and concerns about adverse reactions (8%, 7/84). Additional free-text responses included doubts about the vaccine's efficacy (n=8), limited duration of immunity and frequent boosters (n=5), lack of awareness or knowledge about the vaccine's availability (n=5), low client demand or perceived risk (n=2), concerns about mild reactions outweighing benefits (n=2), a preference for other biosecurity measures (n=1) and a lack of veterinary support for vaccination (n=1).

There were 17% respondents who actively used Strangvac (14/83), 67% did not (56/83) and 16% worked in practices that stocked the vaccine, but they had not yet used it (13/83). For those who had used Strangvac, experiences with the vaccine were mostly centred around adverse reactions. Nine respondents provided feedback on adverse reactions, with reports of pyrexia, localised swelling or high rates of reactions (n=4). Others reported more limited reactions, such as transient pyrexia or reactions consistent with expectations for a vaccine (n=4). When asked what they would improve about Strangvac, suggestions included extending the duration of immunity (n=2), reducing the frequency of administration to align with annual flu vaccines (n=1), improving shelf life (n=1), increasing client awareness (n=1) and reducing adverse reactions (n=3). If Strangvac were shown to provide cross-protection against *Streptococcus zooepidemicus*, respondents indicated varying levels of likelihood that they would use the vaccine. Of those surveyed, 28% (27/98) said 'yes', 53% (52/98) responded with 'maybe' and 19% (19/98) stated 'no'.

Objective summary classification of attitudes to Strangvac among responding vets

Classification of respondents' attitude towards Strangvac, based on the sum of four evaluations of being 'supportive', 'educated', 'active', and 'engaged', are summarised in Figure 5.



Attitude score	0	1	2	3	4	Total
Supportive	0	1	9	8	4	22
Educated	0	46	23	10	4	83
Active	0	0	3	7	4	14
Engaged	0	7	11	5	4	27

Figure 5: Distribution of the classification (scored 0-4) of respondents' attitude to Strangvac, based on the sum of scores of being 'supportive', 'educated', 'active' and 'engaged' (n=99)

Only four of 99 respondents (4%) were categorised as supportive of vaccination, educated about it, active users and engaged with the vaccine's future potential uses, whereas 86% (85/99) of respondents had a score of two or less. The lower table in Figure 5 provides a breakdown of how the overall attitude scores were derived according to the four elements of respondents being 'supportive', 'educated', 'active' and 'engaged'. For attitude score one (n=54), the majority of these were attributable to vets being only 'educated' about Strangvac, for attitude score two (n=23), being 'educated' was again predominant with smaller but equivalent additional contributions of being 'supportive' or 'engaged' and for attitude score three (n=10) there was the least contribution from being 'engaged'. Summing across these individual features suggests that overall vets have knowledge of Strangvac but are not supportive, active, or engaged.

Table 4: Respondent attitude to Strangvac, based on the sum of scores of being 'supportive', 'educated', 'active' and 'engaged' and previous use of Equilis StrepE (n=93), showing no statistically significant association (Fisher's exact P=0.33)

Attitude score	Previous use of Equilis StrepE		Total
	No (%)	Yes (%)	
0	7 (88%)	1 (12%)	8
1	30 (60%)	20 (40%)	50
2	11 (50%)	11 (50%)	22
3	4 (44%)	5 (56%)	9
4	3 (75%)	1 (25%)	4
Total	55 (59%)	38 (41%)	93

Statistical evaluation (Fisher's exact test) of the association between the use of Equilis StrepE in the past and respondents' attitude to Strangvac score indicated there was no significant association between respondents having previously used Equilis StrepE and their attitude score (P=0.33) (Table 4).

Discussion

Current veterinary approaches to strangles prevention and control

This survey provides insights into the recent practices employed by veterinary surgeons in the UK for strangles prevention and control. Approximately 80% of respondents advised a comprehensive multi-faceted approach to managing strangles outbreaks, reflecting a widespread understanding of the importance of biosecurity and early intervention in controlling outbreaks. However, one notable gap was that more than 20% of respondents did not advise clients to notify neighbouring premises during an outbreak. This omission may represent an important missed opportunity for reducing the spread of the disease across multiple properties and working together to raise awareness and break down the stigma associated with infectious diseases like strangles. In the free-text responses in this section, some veterinary surgeons highlighted additional awareness strategies, such as using traffic light systems to manage outbreaks, suggesting that the adoption of more standardised measures is beneficial. The STEPS guidelines, a pan-industry initiative, are an example, but it would be prudent to encourage their update to incorporate and promote the use of vaccine in outbreaks [2]. Testing clinical cases and their contacts was frequently mentioned, reinforcing the importance of timely diagnostics in outbreak management. However, 4% of respondents reported that they would only sample the guttural pouches in a clinical case, which may yield a false negative result, leading to mismanagement of the disease and facilitating onward spread [1]. While there was apparently considerable uniformity in the basic management of outbreaks reported among respondents, more comprehensive approaches may be feasible, based on recent developments. These include improving veterinary surgeons' understanding of diagnostic sampling and result interpretation and them now considering the application of vaccination during an outbreak, using Strangvac, which has DIVA capability.

Insights into attitudes and use of strangles vaccines in the UK

While nearly 20% of respondents promoted strangles vaccination to their clients as a preventative measure, more than 75% did not and vaccination rates were perceived to be less than 10% of practice equine populations. This could reflect the uncertainty that has existed around the effectiveness of strangles vaccines and their role in disease control and prevention, albeit the recent introduction of Strangvac provides an opportunity to change attitudes and improve acceptance of strangles vaccination in practice. The classification of respondents based on their attitudes towards Strangvac revealed notable patterns. A significant proportion of respondents were educated about Strangvac but were neither supportive of it, active users, nor engaged with its future potential applications.

This group represented a sizable portion of veterinary professionals who were aware of the vaccine but were yet to embrace it as part of their routine practice or see it as a critical tool in disease prevention. In contrast, less than 5% of respondents were classified as supportive of Strangvac, educated about it, active users and engaged with its future potential uses. This group represents the most engaged and proactive veterinary surgeons, but the small proportion highlights a gap between knowledge and practice, pointing to the need for increased advocacy and education to convert awareness into active engagement. It is notable that Dechra have recently undertaken increased engagement with veterinary practitioners to try and address this gap.

Do barriers to uptake of vaccination exist and what are they?

Barriers to the uptake of strangles vaccination were considered to be multifactorial. Cost was a recurrent theme among respondents when discussing client barriers to strangles vaccination with Equilis StrepE when it was available, although cost of Strangvac was slightly less frequently cited as a barrier. These cost-related barriers reflect broader challenges in veterinary care, where economic constraints often limit the implementation of preventive measures, even when they may offer long-term benefits [3,4]. Another key factor influencing vaccination uptake was the relatively low perceived prevalence of strangles. Although this is the first study specifically reporting attitudes toward strangles vaccination in the UK, previous studies on influenza vaccines have found that a low perceived level of risk is one of the primary reasons for choosing not to vaccinate [5].

Concerns about adverse reactions influenced the uptake of Equilis StrepE, consistent with adverse reactions being similarly highlighted as a concern in equine influenza vaccine surveys [4,5]. It has been suggested that uptake of Strangvac could be hindered by previous negative experiences with other vaccines, particularly the live-attenuated Equilis StrepE, which, when commercially available, was associated with reports of 'strangles-like' disease in some cases [6]. However, less than 10% of respondents were concerned about adverse reactions as a reason not to use Strangvac, although among respondents who had used Strangvac, reports of adverse reactions, including pyrexia and local swelling, were noted. There remains a disconnect between the expectation that vaccines should cause no reactions and the reality that some level of response is to be expected. Educating both veterinary professionals and their clients on the anticipated mild and transient nature of most vaccine reactions may help address concerns and improve vaccine acceptance, particularly given the contrasting severe clinical impact of strangles. The submucosal route of administration and lack of a DIVA capability were identified as veterinary-specific barriers to using Equilis StrepE. These particular factors are not an issue with Strangvac, which is administered intramuscularly and has DIVA capability [7], although perceived short shelf-life of strangles vaccines was an issue of concern to vets. Encouragingly a simple comparison of responses between groups of vets that had and had not used Equilis StrepE in the past, suggested that that prior experience with the live-attenuated vaccine did not strongly influence the respondents' attitudes towards Strangvac.

Recently, a group of international experts published a review discussing their experiences with use of Strangvac across Europe [8]. Specifically, the review highlighted how Strangvac can be practically applied as a preventative and provided insights into its administration in outbreak scenarios and field data supplied from outbreaks further demonstrated the vaccine's efficacy. This reinforces the potential of Strangvac in controlling and preventing strangles outbreaks, beginning to address previous concerns about its efficacy and long-term protection.

What factors might drive increased Strangvac uptake?

Recently, the lack of biosecurity and disease surveillance in the UK was ranked as the highest priority welfare issue affecting the equine population by a panel of animal welfare experts [9]. Encouraging a culture of proactive disease prevention is essential in bridging gaps in current disease control efforts, and strangles vaccination is a key player in this. By prioritising vaccination as part of a broader equine biosecurity strategy, veterinary professionals and horse owners will be able to reduce the risks of strangles outbreaks, protect the health of individual horses and contribute to improving the overall welfare of the UK's horse population. Promoting awareness and adoption of strangles vaccination within the context of broader disease prevention will be crucial in improving the resilience of the equine industry and safeguarding against future disease outbreaks.

The primary reasons cited by vets in this survey for not using Strangvac specifically, included lack of client demand and veterinary practices not stocking the vaccine. Ensuring that practices stock the vaccine and actively promote its use are therefore essential to drive increased uptake, because if vets rely on owner demand to initiate vaccination, this creates a cyclical issue that will hinder its adoption. A factor driving influenza vaccine uptake in the UK is the mandatory requirement for many regulatory bodies to have horses vaccinated as part of their competition and event participation criteria. This requirement has been shown to drive higher vaccination rates by creating a structured incentive for owners to vaccinate their horses [5]. A similar regulatory push for strangles vaccination, especially for horses participating in high-risk activities or events, could further incentivise both veterinary surgeons and horse owners to adopt Strangvac more widely.

In addition, if Strangvac were shown to offer broader applications, such as cross-protecting against *Streptococcus zooepidemicus*, its appeal would be likely to increase, with more than a quarter of survey respondents agreeing, and more than half saying 'maybe.' This is particularly relevant in efforts to reduce antimicrobial (AM) use and combat AM resistance, as clinically significant *Streptococcus zooepidemicus* infections are commonly treated with antibiotics.

Another important factor is improving communication and education. Increasing client awareness of the risks associated with strangles, the benefits of vaccination and the potential consequences of not vaccinating could drive higher vaccination rates. For veterinary surgeons, enhanced training on the latest vaccine and its efficacy would empower them to better communicate these benefits to clients. Finally, promotion of a greater sense of community responsibility, such as encouraging the sharing of best practices across the industry, may help to normalise vaccination as a key component of population wide disease prevention and control.

Limitations

This survey provides valuable insights but has several limitations. The cross-sectional design captured attitudes at a single point in time, making it difficult to assess changes over time and is now 12 months in the past. The convenience sampling used to recruit participation in the survey may have contributed responder bias and the survey reflects veterinary surgeons' perceptions of owner reluctance to vaccinate rather than direct owner responses, which may not truly represent actual client attitudes.

Conclusion

While barriers to the uptake of strangles vaccination persist, veterinary professionals have a key role in driving its increased adoption. This survey's findings highlight the importance of addressing obstacles that hinder the transition from education to active users of vaccination, such as ensuring veterinary practices stock the vaccine, improving communication with clients and providing robust field data and case studies to demonstrate efficacy. Moving beyond awareness to active implementation remains a challenge, requiring stronger advocacy and engagement from veterinary professionals. By taking a proactive role, veterinary surgeons can enhance strangles prevention and control across the UK.

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The views expressed in this focus article are those of the author and independent of the Equine Quarterly Disease Surveillance Report.

UK Infectious Disease Reports

This section summarises notifiable disease investigations followed by laboratory confirmed endemic infectious disease outbreaks reported in the United Kingdom during the first quarter of 2025. Each reported outbreak may involve more than one animal. To view current outbreak reports, see www.equinesurveillance.org/iccview.

No reported outbreak(s) in a region does not necessarily mean the area is free from the disease. When a particular disease is reported as 'endemic', disease outbreaks are common and at an expected level.

NOTIFIABLE DISEASES

The APHA Veterinary Exotic Notifiable Disease Unit (VENDU) co-ordinates the investigation of suspected exotic notifiable disease in Great Britain on behalf of Defra, Welsh Government and Scottish Government. Further information about notifiable diseases is available on https://www.gov.uk/government/collections/notifiable-diseases-in-animals.

It should be noted that all information relating to equine notifiable disease investigations (including suspect cases that are subsequently negated) will appear in this section and are not broken down by body system. APHA non-negative test results that are referred to below do not equate to confirmed positive cases and are therefore not included in quarterly laboratory results tables. Confirmed positive results are based on APHA investigations and follow confirmation on official samples. Non-notifiable diseases will appear in their relevant system section.

SURRA

In February, a non-negative serology result was reported from a pre-export sample in one mare. Following an APHA investigation the horse was confirmed to be clinically well. Official samples collected and tested at Weybridge had non-negative results. Further testing was then completed at the WOAH reference laboratory with negative results. These results alongside the history and clinical picture enabled suspicion of disease to be negated.

WEST NILE VIRUS

There were two 'test to exclude' (TTE) cases for WNV, both tested negative.

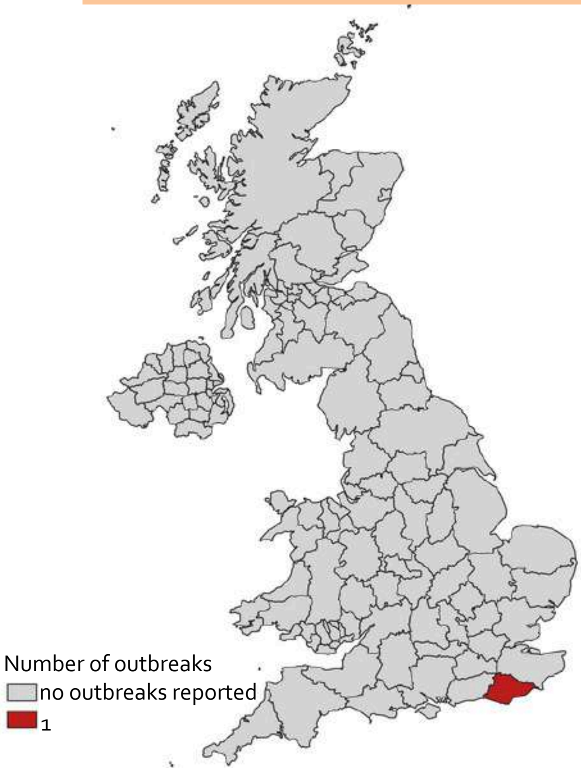
Equine Herpes Virus

EHV-1 NEUROLOGICAL INFECTION

On 21 January 2025, Axiom Veterinary Laboratories reported a case of EHV-1 neurological disease on a premises in Sussex. Positive diagnosis was confirmed by PCR on a nasopharyngeal swab.

The affected case was lapsed vaccinated and presented with clinical signs of acute recumbency and was euthanased.

There had been no recent movement on or off the site and all in contacts were isolated, biosecurity measures were heightened and voluntary movement restrictions in place until laboratory clearance testing was conducted.

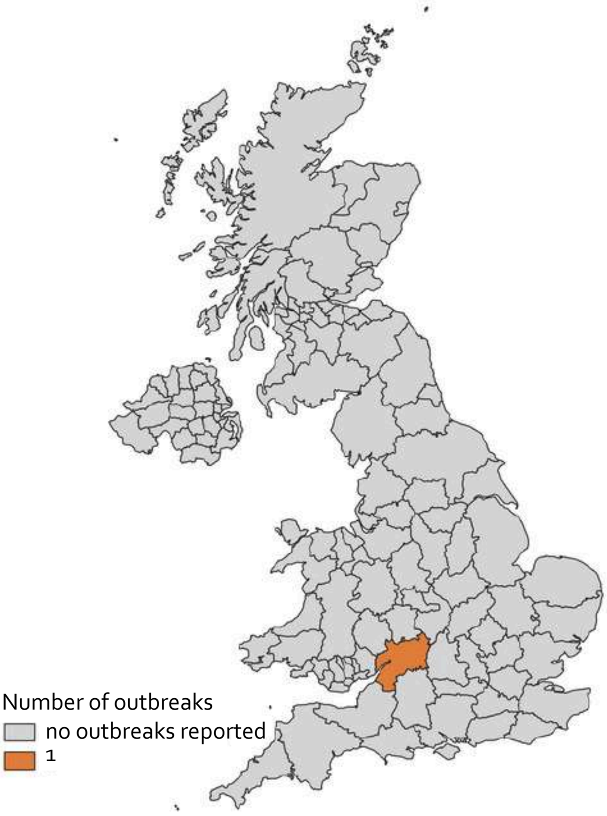


Right: Frequency of reported laboratory diagnosed outbreaks of EHV-1 neurological infection across the UK during 2025 Q1.

EHV-1 RESPIRATORY INFECTION

On 28 January 2025, Three Counties Equine Hospital reported a case of EHV-1 respiratory infection in a three-year-old gelding on a premises in Gloucestershire. Positive diagnosis was confirmed by Loop-mediated isothermal amplification (LAMP).

Clinical signs included pyrexia and there had been recent new arrivals and movement on/off site. There were other animals on site, none of which were direct in contacts.



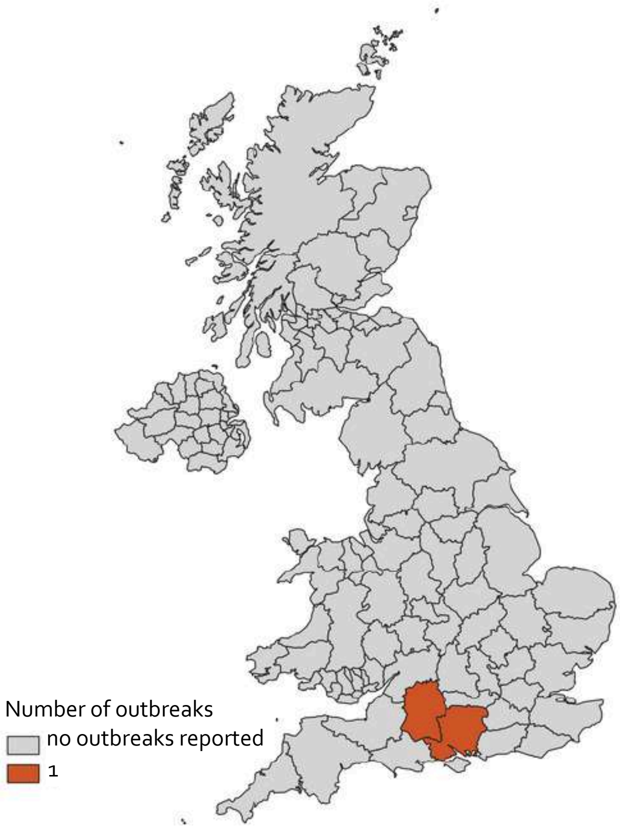
Left: Frequency of reported laboratory diagnosed outbreaks of EHV-1 respiratory infection across the UK during 2025 Q1.

EHV-1 REPRODUCTIVE INFECTION

In 2025 Q1 Rossdales Laboratories reported two outbreaks of EHV-1 abortion, one in January and one in March, on separate premises in Hampshire and Wiltshire.

The first outbreak, reported on 17 January, involved a 12-year-old Thoroughbred mare that aborted at 10 months gestation, with EHV-1 confirmed via PCR on fetal tissues. Subsequently, five additional horses on the same premises tested positive for EHV-1, one aborted and the remaining four were positive via nasopharyngeal swabs. Among the latter, one mare had a foal during the outbreak which also tested positive via nasal and placenta swabs. The affected horses ranged in age from 4 to 15 years.

The second outbreak, reported on 21 March, involved a nine-year-old mare that aborted at 11 months gestation, with a positive diagnosis confirmed on 17 March by PCR on fetal tissue. While there were other pregnant animals on the premises, some of which were direct in-contacts, none were currently showing clinical signs at the time of reporting.



Frequency of reported laboratory diagnosed outbreaks of EHV-1 respiratory infection across the UK during 2025 Q1.

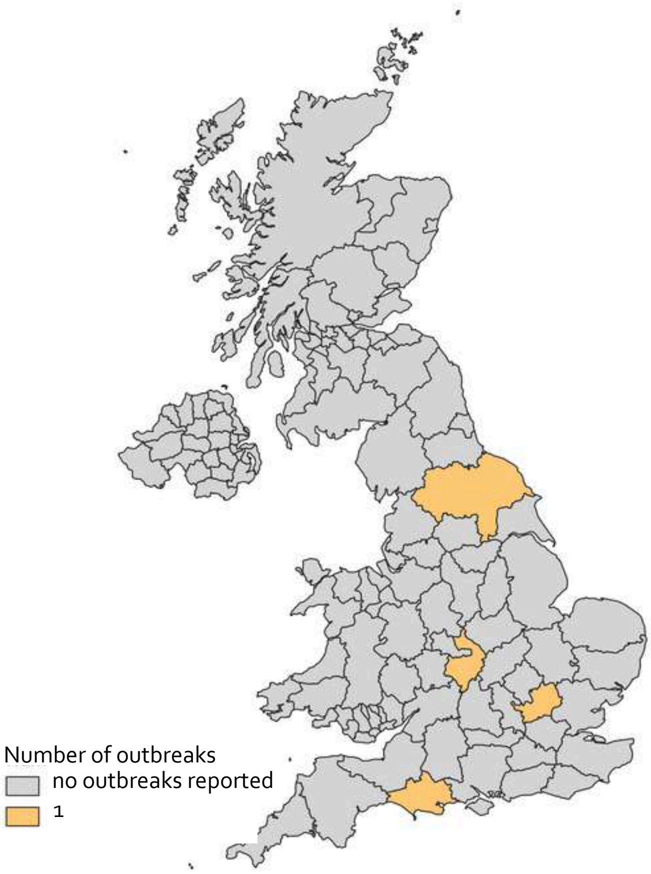
Four additional outbreaks of EHV-1 abortion were reported to EIDS, however, no epidemiological data could be obtained due to the submitting veterinary practice not providing the necessary data.

EHV-4 RESPIRATORY

SUMMARY

In January 2025, Rossdales Laboratories reported two outbreaks of Equine Herpes Virus-4 (EHV-4) respiratory infection, and Rainbow Equine Hospital Laboratory reported one outbreak. In February 2025, Rainbow Equine Hospital reported one additional outbreak.

Information regarding these four reported outbreaks is summarised in Table 1.



Frequency of reported laboratory diagnosed outbreaks of EHV-4 respiratory infection across the UK during 2025 Q1.

Table 1: EHV-4 respiratory infection outbreaks reported 1 Jan to 31 Mar 2025.

Total outbreaks reported	**4**	
	n	%
Total horses sampled	4	100%
Sample type		
Swab	4	100%
Nasopharyngeal	4	100%
Signalment		
Sex of horse indicated	4	100%
Female	1	25%
Male	3	75%
Breed of horse	1	25%
Sports horse	1	100%
Native UK horse	-	-
Non UK-native horse	-	-
Crossbreed	-	-
Age of horse	4	100%
Range	1 - 11 years	
IQR	4 - 6 years	
Median	5 years	
Clinical signs reported*	15	
Lethargy	4	27%
Nasal discharge	3	20%
Pyrexia	4	27%
Inappetence	3	20%
Lymphadenopathy	2	13%
Vaccination status	4	67%
Vaccinated	1	25%
Unvaccinated	3	75%
Premises type	0	0%
Private	-	-
Commercial	-	-
Month		
January	3	
February	1	
March	0	

**From 4 diagnoses*

Ten additional outbreaks of EHV-4 respiratory infection were reported to EIDS, however, no epidemiological data could be obtained, due to either submitting veterinary practice not providing the necessary data. ***EIDS encourages veterinary surgeons receiving positive laboratory results to contact EIDS*** *and provide additional details allowing for anonymised reporting of disease occurrence, thereby greatly enhancing the level of ongoing surveillance of equine infectious diseases in the UK.*

NB: *Figures in the UK Infectious Disease Report may differ, due to EIDS lacking permission to report some outbreaks or not receiving real-time epidemiological data*

Equine Influenza

SUMMARY

In January 2025, one case of Equine Influenza (EI) was confirmed via PCR on a nasopharyngeal swab, however, no epidemiological data could be obtained, due to the submitting veterinary practice not providing the necessary data.

Veterinary surgeons play a crucial role in EI surveillance and can be assisted through their practices registering with and using the HBLB Equine Influenza Surveillance Scheme. By identifying and sampling suspect cases, they contribute valuable data and samples for strain analysis by the industry funded virology team at the University of Cambridge.

Registered vet practices are encouraged to take advantage of FREE PCR testing and expert advice available through the scheme. The swift diagnosis and implementation of appropriate control measures are paramount to containing the virus and protecting equine health and welfare. For more information on the equine influenza surveillance scheme visit: www.equinesurveillance.org

EIDS has produced an information sheet summarising key information about equine influenza which is available on our website: https://equinesurveillance.org/landing/resources/What_to_do_with_equine_flu2024V1.pdf

HBLB INFLUENZA SURVEILLANCE

UK veterinary surgeons suspecting equine influenza can submit samples for PCR testing with the scheme covering the cost of the laboratory testing. Veterinary surgeons wishing to use this scheme can sign up here: www.equinesurveillance.org

2025 Q1 EI SEQUENCE ANALYSIS

Following the same pattern seen in 2023 and 2024, we have observed a decrease in the prevalence of circulating equine influenza in the UK in the first three months of 2025. This may be due to reduced mixing of horses due to fewer sales at this time of year leading to a decrease or complete loss of circulating virus. In both 2023 and 2024 new cases reported after Q1 were found to be most closely related to viruses previously found circulating in the UK in 2022 rather than the viruses circulating more recently. This indicates that equine influenza virus may have ceased circulating in the UK during Q1 to be replaced by a reintroduced strain, possibly imported from an area/country where the virus had continued to circulate separately from the UK since 2022.

In the first quarter of 2025, only a single isolate has been identified from a horse in Yorkshire. Sequence analysis confirms it is closely related to the viruses circulating in the last quarter of 2024 and contains the same signature amino acid substitutions in the HA surface protein found in the 2024 viruses. These are at antigenic sites A (S143L) and B (T192N).

It will be interesting to see whether viruses emerging in Q2 of 2025 are still part of this lineage, indicating continued low level viral circulation in Q1 followed by a seasonal increase in Q2, or as with the previous two years are clearly distinct from the 2024 viruses, and are more closely related to viruses previously identified either further back in time or outside the UK, indicating a possible loss of circulating virus in Q1 followed by a reintroduction from another region or country where the virus has continued to circulate and evolve separately from the sampled UK viral population.

Equine influenza virus sequence analysis updates are provided by the HBLB funded Equine Virology team based at the University of Cambridge’s Department of Veterinary Medicine.

Surveillance of Equine Strangles

Table 3: *S. equi* samples reported 1 Jan to 31 Mar 2025.

	n	%
Total horses sampled	108	100%
Sample type*	117	
Swab	33	28%
Nasopharyngeal	28	85%
Nasal	5	15%
Guttural pouch lavage	75	64%
Other	8	9%
Diagnostic tests		
PCR only requested	84	78%
PCR and culture requested	19	18%
iiPCR	3	3%
Culture only requested	2	2%
Signalment		
Sex of horse indicated	77	71%
Female	39	51%
Male	38	49%
Breed of horse	57	53%
Native UK pony	25	44%
Sports horse	14	25%
Crossbreed	1	2%
UK native horse	14	25%
Non-UK native horse	3	5%
Age of horse	48	44%
Range	6months - 23 years	
IQR	3 - 14 years	
Median	6	
Clinical signs reported**	71	
Nasal discharge	23	32%
Pyrexia	13	18%
Glandular swelling	6	9%
Abscess	10	14%
Other	3	4%
Coughing	4	5%
Lethargy	4	5%
Chondroids	4	5%
Guttural pouch empyema	4	5%
Reason for sampling reported	62	
Total reasons*	83	
Clinically ill horse	20	24%
Post infection screening	25	30%
Strangles suspected	15	18%
Post seropositive ELISA	7	8%
Pre/post movement screening	6	7%
In contact	4	5%
Other	6	7%

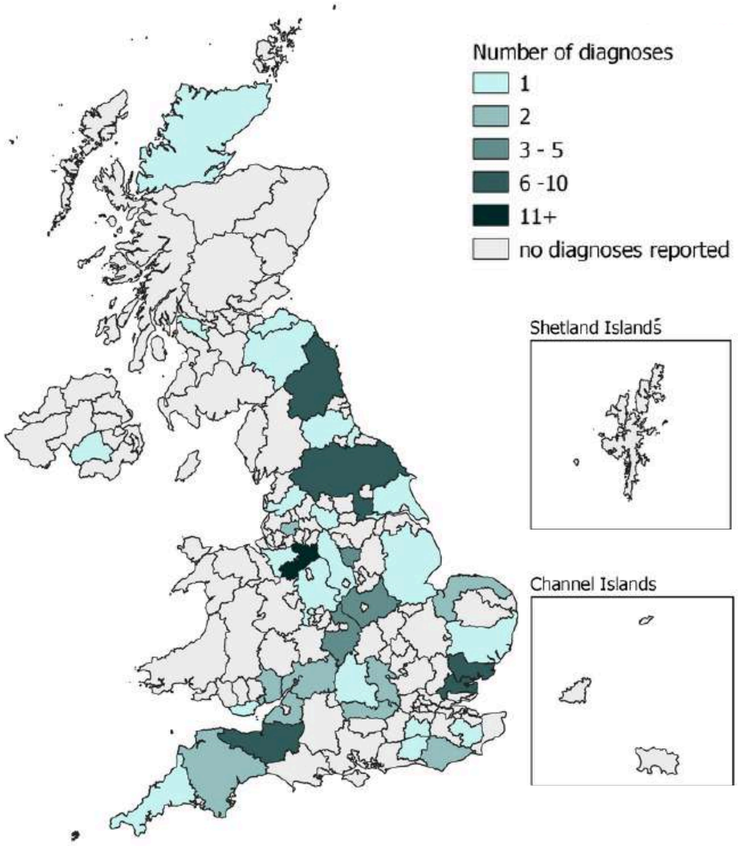
*can include multiple entries per submission

**From 37 diagnoses

The Surveillance of Equine Strangles network enables the ongoing assessment of the disease's true welfare impact, highlighting trends over time and different geographical areas across the UK. The SES network is comprised of twelve diagnostic laboratories based across the UK.

A total of 108 cases with positive diagnoses of *S. equi* were reported by SES Laboratory during Q1 2025 from samples submitted by 60 veterinary practices in the UK. Information regarding reported samples is summarised in Table 3.

NB: *Figures in the UK Infectious Disease Report may differ, due to EIDS lacking permission to report some outbreaks or not receiving real-time lab data.*



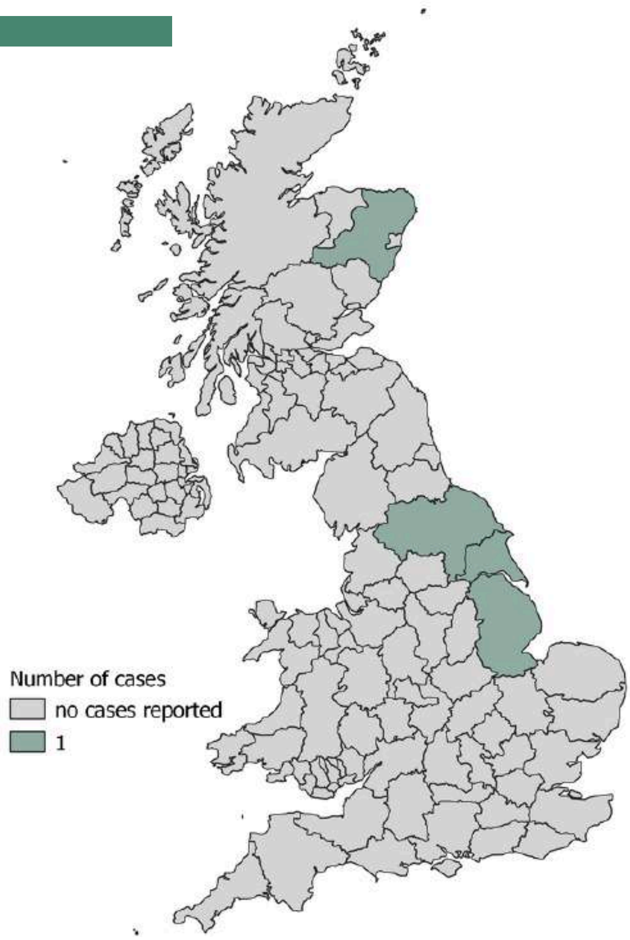
Frequency of reported laboratory diagnoses of *S. equi* across the UK from SES during 2025 Q1. Diagnoses are mapped by submitting vet practice location.

Surveillance of Equine Strangles

Equine Grass Sickness

An equine grass sickness (EGS) surveillance scheme was established in spring 2008 facilitating the investigation of changes in geographical distribution and incidence of EGS in Great Britain. Having up to date anonymised reports from across the country provide accurate representation of EGS cases nationwide and is vital to help continue epidemiological research into the disease.

Reporting cases of EGS to the Equine Grass Sickness Fund (EGSF) can be done by either the attending veterinary surgeon or the owner, at http://grasssickness.org.uk/casereports.



Frequency of EGS cases reported to the EGSF across the UK during 2025 Q1.

In Q1 2025 four cases of EGS were reported to EGSF. Cases were reported across England (n= 3, 75%) and Scotland (n= 1, 25%). Information regarding reported cases is summarised in Table 4.

Table 4: Equine Grass Sickness cases reported to the EGSF 1 Jan to 31 Mar 2025.

	n	%
Total horses sampled	4	100%
EGS presentation	4	100%
Acute	2	50%
Subacute	1	25%
Chronic	1	25%
EGS outcome	4	100%
Survivor	0	0
Non-survivor	4	100%
EGS diagnoses	4	100%
Clinical signs alone	4	100%
Histological confirmation	0	0%
Month of diagnosis	4	100%
January	0	0%
February	1	25%
March	3	75%
Signalment		
Sex of horse indicated	4	100%
Female	3	75%
Male	1	25%
Breed of horse	4	100%
Native UK pony	-	-
Native UK horse	3	75%
Non-native UK horse	1	25%
Sports horse	-	-
Age of horse	2	50%
Range	3-4	

Please note that figures for EGS contained in the laboratory report may differ to the number of cases reported here, which are reported by both owners and veterinary surgeons.

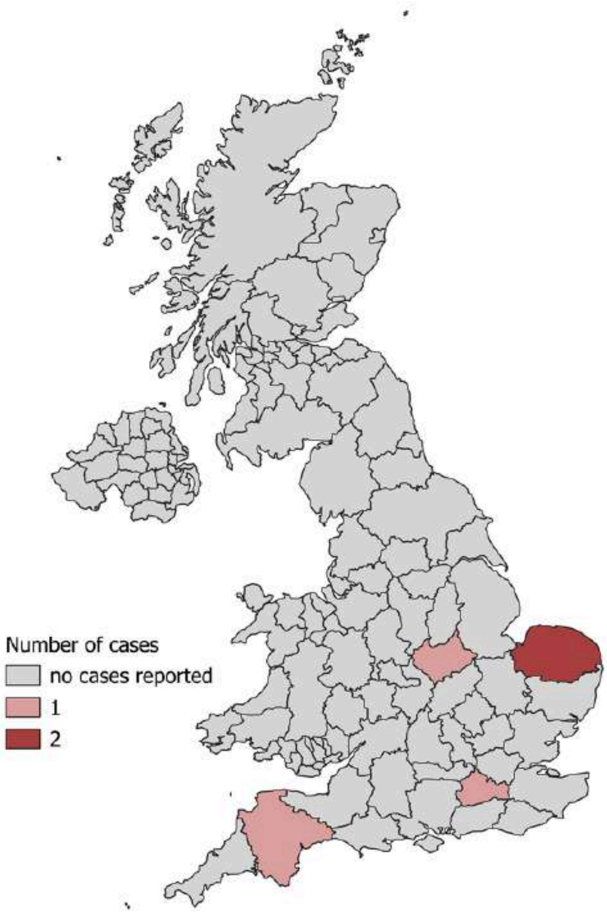
RedWatch

Table 5: Cyathostominosis cases reported to EIDS 1 Nov to 31 Mar 2025.

	n	%
Total case reports	5	100%
Age of horse	5	100%
Median age	16 months	
Range	6 - 18 months	
Breed of horse	5	100%
Native UK pony	1	20%
Native UK horse	1	20%
Non-native UK horse	-	-
Sports horse	3	60%
Clinical signs	5	100%
Diarrhoea	3	60%
Red worm in faeces	4	80%
Weightloss	5	100%
Colic	1	20%
Lethargy	3	60%
Inappetence	1	20%
Death	1	20%
Month of diagnosis	5	100%
November	1	20%
December	2	40%
January	1	20%
February	1	20%
Diagnostic method	5	100%
Clinical signs present	5	100%
Additional diagnostic findings	2	40%
Hypoalbuminaemia	2	40%
Small redworm ELISA positive	2	40%
Risk factors for disease	4	80%
Deworming not informed by FWEC	4	80%
No pasture control of faeces	2	40%
Anthelmintic history	4	80%
Routine worming with ivermectin and moxidectin	1	20%
Administered due to clinical concern	2	40%
None administered	1	20%
Co-grazer history	3	60%
In-contacts reported with clinical signs	2	40%
Young age of co-grazers	2	40%

A targeted surveillance scheme for cyathostominosis and *Strongylus vulgaris* was launched by EIDS in 2025 under the name RedWatch. This initiative aims to support the equine industry in monitoring potential changes in the incidence and presentation of clinical parasite-associated disease, particularly in the context of reduced anthelmintic use. National reporting of anonymised clinical cases is essential to gain a clearer understanding of current disease patterns and inform future control strategies.

Cases can be submitted by the attending veterinary surgeon via the RedWatch online form. Full details of the reported cases are summarised in Table 5.



Frequency of cyathostominosis cases reported to EIDS across the UK from 1 Nov 2024 to end of March 2025.

REPORT A CLINICAL CASE OF REDWORM

www.equinesurveillance.org/redwatch

Equine Infectious Disease Surveillance

RedWatch

VIROLOGY

The results of virological testing for January to March 2025 are summarised in Tables 6 to 9. Please note, APHA's sample population is different to the other contributing laboratories as their tests are principally in relation to international trade.

GASTROINTESTINAL DISEASE

Table 6: Results of virological testing for gastrointestinal diseases between 1 Jan to 31 Mar 2025.
CLs = laboratories contributing tested samples

Test	Detection	Samples tested (n)	Positive (n)	CLs (n)
Adenovirus HI	Antibody	23	0	1
Coronavirus PCR	Agent	107	17	2
Rotavirus ELISA	Antibody	0	0	^
Rotavirus-A PCR	Agent	48	5	2
Rotavirus-B PCR	Agent	48	0	2
Rotavirus antigen ELISA/Strip test/LFT	Agent	11	0	3

HI Haemagglutination inhibition, LFT Lateral flow test, ^ no laboratories reporting tested samples this quarter

RESPIRATORY DISEASE

Table 7: Results of virological testing for respiratory diseases between 1 Jan to 31 Mar 2025.
CLs = laboratories contributing tested samples

Test	Detection	Samples tested (n)	Positive (n)	CLs (n)
EHV-2 PCR	Agent	27	3	2
EHV-5 PCR	Agent	27	4	2
Influenza HI (APHA)#	Antibody	0	0	^
Influenza HI	Antibody	33	0	1
Influenza PCR (APHA)	Agent	311	0	1
Influenza PCR	Agent	584	4*	7
Influenza IFAT	Agent	0	0	^
Influenza LAMP	Agent	12	0	1
ERV-A/B CFT	Antibody	10	0	1
ERV PCR	Agent	4	0	1

CFT Complement fixation test, EHV Equine herpes virus, ERV Equine rhinitis virus, HI Haemagglutination inhibition, IFAT immunofluorescent antibody test, LAMP loop mediated isothermal amplification, #The APHA no longer offer testing for influenza by HI, *Figures reported here may differ to the endemic diseases section due to EIDS not receiving details from the submitting veterinary practice or the owner requesting details not to be circulated, ^ no laboratories reporting tested samples this quarter

Table 8: Results of virological testing for multiple/miscellaneous/neurological diseases between 1 Jan to 31 Mar 2025. CLs = laboratories contributing tested samples

Test	Detection	Samples tested (n)	Positive (n)	CLs (n)
EHV-1 LAMP	Agent	17	1	1
EHV-1 PCR (APHA)	Agent	22	0	1
EHV-4 PCR (APHA)	Agent	0	0	^
EHV-1 PCR	Agent	1094	10*	7
EHV-1 VI	Agent	0	0	^
EHV-4 PCR	Agent	1094	32*	7
EHV-4 LAMP	Agent	17	0	1
EHV-4 VI	Agent	0	0	^
EHV-1 IFAT - Ag	Agent	0	0	^
EHV-1/-4 CFT	Antibody	334	1	2
EHV-1/-4 CFT (APHA)	Antibody	1	0	1
EHV-1/-4 IFAT - Ag	Agent	0	0	^
EHV-8 PCR	Agent	0	0	^
EIA ELISA	Antibody	5331	2#	7
EIA Coggins (APHA)	Antibody	5130	0	1
EIA Coggins	Antibody	23	0	3
Hepacivirus PCR	Agent	17	0	1
Parvovirus PCR	Agent	17	0	1
Papilloma virus PCR	Agent	1	0	1
WNV IgM ELISA (APHA)	Antibody	5	0	1
WNV IgG ELISA (APHA)	Antibody	2	0	1
WNV PCR (APHA)	Agent	0	0	^

CFT Complement fixation test, EHV Equine herpes virus, EIA Equine infectious anaemia, IFAT immunofluorescent antibody test, LAMP loop mediated isothermal amplification, VI Virus isolation, WNV West Nile Virus
*EHV figures reported here may differ to the endemic section figures due to non-reporting by vets
Positive EIA ELISAs negated by Coggins, ^ no laboratories reporting tested samples this quarter

Table 9: Results of virological testing for reproductive diseases between 1 Jan to 31 Mar 2025.
CLs = laboratories contributing tested samples

Test	Detection	Samples tested (n)	Positive (n)	CLs (n)
EHV-3 PCR	Agent	1	0	1
EHV-3 VI	Agent	0	0	^
EHV-3 VN	Antibody	1	0	1
EVA ELISA*	Antibody	9111	40	6
EVA PCR (APHA)	Agent	1	0	1
EVA PCR	Agent	5	0	1
EVA VN (APHA)**	Antibody	548	9	1
EVA VN**	Antibody	189	106	3

EVA Equine viral arteritis, EHV Equine herpes virus, VI Virus isolation, VN Virus neutralisation
*Positive samples then undergo VN testing as the confirmatory test
** Due to the unavailability of the EVA vaccine since March 2023, all stallions now have lapsed vaccination status. If sero-positivity cannot be attributed to prior vaccination and confirmed by testing alongside archived serial samples that show a stable or declining titre, the case must be reported to APHA for investigation under the EVA Order 1995. Additionally, mares that are sero-positive within two weeks of mating must also be investigated. ^ no laboratories reporting tested samples this quarter

BACTERIOLOGY

A summary of the diagnostic bacteriology testing undertaken by different contributing laboratories is presented in Tables 10 to 13. The BEVA laboratory registering scheme is for the testing of CEM (*Taylorella equigenitalis*), *Klebsiella pneumoniae* and *Pseudomonas aeruginosa*. Granting and maintenance of approval depends on a laboratory achieving correct results in quality assurance tests and reporting data to this report. BEVA publishes a list of approved laboratories annually. Fifteen BEVA approved laboratories in the UK contributed data.

REPRODUCTIVE DISEASE

Table 10: Results of bacteriological testing for reproductive diseases between 1 Jan to 31 Mar 2025.
CLs = laboratories contributing tested samples

Test	Detection	Samples tested (n)	Positive (n)	CLs (n)
CEM *Taylorella equigenitalis* PCR (BEVA)	Agent	2060	0	9
CEM *Taylorella equigenitalis/asinigenitalis* culture^ (BEVA)	Agent	8697	0	14
CEM *Taylorella equigenitalis* PCR (APHA)	Agent	140	0	1
CEM *Taylorella asinigenitalis* PCR (APHA)	Agent	140	0	1
CEM *Taylorella equigenitalis/asinigenitalis* culture^ (APHA)	Agent	946	0	1
Klebsiella pneumoniae capsule types 1 PCR	Agent	26	0	1
Klebsiella pneumoniae capsule types 2 PCR	Agent	26	1	1
Klebsiella pneumoniae capsule types 5 PCR	Agent	26	4	1
Klebsiella pneumoniae PCR (BEVA)	Agent	2057	23	8
Klebsiella pneumoniae culture (APHA)	Agent	115	1	1
Klebsiella pneumoniae culture (BEVA)	Agent	8968	35	15
Pseudomonas aeruginosa PCR (BEVA)	Agent	2057	37	8
Pseudomonas aeruginosa culture (APHA)	Agent	115	0	1
Pseudomonas aeruginosa culture (BEVA)	Agent	8872	16	15

BEVA British Equine Veterinary Association approved laboratories, CEM contagious equine metritis (*Taylorella equigenitalis*), ^*Taylorella asinigenitalis* and *Taylorella equigenitalis* are morphologically indistinguishable by culture and therefore if a sample is positive by culture, it should be screened for both species by multiplex PCR

RESPIRATORY DISEASE

Table 11: Results of bacteriological testing for respiratory diseases between 1 Jan to 31 Mar 2025.
CLs = laboratories contributing tested samples

Test	Detection	Samples tested (n)	Positive (n)	CLs (n)
Streptococcus equi ELISA Antigen A/C (ISL)†	Antibody	3528	388	5
Streptococcus equi ELISA M-protein (IDVET)	Antibody	638	144	1
Streptococcus equi PCR	Agent	2194	176	9
Streptococcus equi LAMP	Agent	22	0	1
Streptococcus equi culture	Agent	618	46	11
Rhodococcus equi ELISA#	Antibody	4	4	1
Rhodococcus equi PCR	Agent	6	0	1
Rhodococcus equi culture	Agent	496	0	3
Streptococcus zooepidemicus PCR	Agent	516	181	3
Streptococcus zooepidemicus culture	Agent	364	127	5

LAMP loop mediated isothermal amplification, †seropositivity may be attributed to disease exposure, infection or carrier states, #seropositives include exposure to the virulent form of *R. equi* or the presence of maternally derived antibodies, the *S. equi* agent detection tests presented here are for individual tests, not individual horses. Therefore, they differ from the SES data presented in Table 3, which represents individual cases

MISCELLANEOUS DISEASE

Table 12: Results of miscellaneous bacteriological testing between 1 Jan to 31 Mar 2025.
CLs = laboratories contributing tested samples

Test	Detection	Samples tested (n)	Positive (n)	CLs (n)
MRSA culture	Agent	1173	7	7
Borrelia burgdorferi ELISA	Antibody	36	1	3
Borrelia burgdorferi PCR	Agent	0	0	^
Burkholderia mallei (Glanders) CFT (APHA)	Antibody	232	0	1
Leptospira MAT	Antibody	0	0	^
Leptospira PCR	Agent	6	0	1
Anaplasma ELISA	Antibody	37	12	3
Anaplasma PCR	Agent	1	0	1

CFT Complement fixation test, LFT Lateral flow test, MAT microagglutination testing antibody, MRSA methicillin resistant *Staphylococcus aureus*, ^ no laboratories reporting tested samples this quarter

GASTROINTESTINAL DISEASE

Table 13: Results of bacteriological testing for gastrointestinal diseases between 1 Jan to 31 Mar 2025.
CLs = laboratories contributing tested samples

Test	Detection	Samples tested (n)	Positive (n)	CLs (n)
Campylobacter culture	Agent	22	1	5
Clostridium perfringens ELISA	Toxin	300	3	2
Clostridium perfringens LFT	Toxin	70	6	2
Clostridium perfringens PCR	Agent	40	8	1
Clostridium difficile ELISA	Toxin	250	19	2
Clostridium difficile LFT	Toxin	127	0	3
Clostridium difficile PCR	Agent	39	2	1
Lawsonia intracellularis IPMA	Antibody	48	18	1
*Lawsonia intracellularis*** PCR	Agent	101	4	3
Salmonella Typhimurium‡ PCR	Agent	124	0	2
Salmonella Typhimurium‡ WGS (APHA)	Agent	17	17	1
Salmonella Typhimurium‡ culture	Agent	288	12	5
Salmonella Other *spp*‡ PCR	Agent	159	16	6
Salmonella Other *spp*‡ WGS (APHA)	Agent	9	9	1
Salmonella Other *spp*‡ culture	Agent	470	21	8
Enterobacter culture	Agent	2274	100	6
E. coli culture	Agent	2355	220	7

LFT Lateral flow test, WGS whole genome sequencing, **identified using PCR applied to faeces, IPMA immunoperoxidase monolayer assay, ‡Under the Zoonoses Order 1989, it is a statutory requirement to report and serotype positive cases for *Salmonella spp*. A positive case may have repeat samples taken.

APHA *SALMONELLA* RESULTS

Twenty-six samples were submitted this quarter to the Animal and Plant Health Agency (APHA) and all were positive for *Salmonella*. Of these, the serovars reported were *S.* Typhimurium (17 isolates), *S.* Enteritidis (6 isolates) and single incidents of *S.* Newport, *S.* Bonn and *Salmonella* 4,5,12:b:-.

Salmonella Typhimurium has been associated with a number of different sources including livestock, dogs, wildlife and feed while *S.* Enteritidis is typically associated with humans and poultry. *S.* Newport is often found in wildlife including badgers. This is the first isolation of *Salmonella* Bonn in equines in GB. This wide range of associations highlights the zoonotic potential of *Salmonella* infections which is particularly important in companion animals such as horses.

For more information from APHA about *Salmonella* in Great Britain, please see the 2023 *Salmonella* in animals and feed surveillance report https://www.gov.uk/government/publications/salmonella-in-animals-and-feed-in-great-britain

PARASITOLOGY

A summary of parasitology testing undertaken by contributing laboratories is presented in Tables 14 and 15.

ECTOPARASITES AND OTHER SKIN PATHOGENS

Table 14: Results of ectoparasitology testing between 1 Jan to 31 Mar 2025.
CLs = laboratories contributing tested samples

Test	Detection	Samples tested (n)	Positive (n)	CLs (n)
Mange *Sarcoptes scabiei*	Agent	342	0	11
Mange *Chorioptes spp*	Agent	339	2	10
Mange *Trombicula spp*	Agent	303	0	8
Mange *Demodex equi*	Agent	323	0	9
Lice *Damalinia equi*	Agent	303	24	7
Lice *Haematopinus asini*	Agent	309	9	7
Ringworm PCR	Agent	119	15	3
Ringworm culture	Agent	93	2	7
Ringworm microscopy	Agent	323	66	9
Dermatophilosis culture	Agent	69	5	3
Dermatophilosis microscopy	Agent	54	15	4
Candida culture	Agent	68	4	3
Candida microscopy	Agent	0	0	^

^ no laboratories reporting tested samples this quarter

Table 15: Results of endoparasitology testing between 1 Jan to 31 Mar 2025.
CLs = laboratories contributing tested samples

Test	Detection	Samples tested (n)	Positive (n)	CLs (n)
Ascarids faecal exam	Agent	26800	218	13
Strongyles (large/small) faecal exam	Agent	27582	7460	15
Strongyloides faecal exam	Agent	26802	223	11
Tapeworm ELISA saliva	Antibody	10213	2812	1
Tapeworm ELISA serum	Antibody	2283	1149	1
Tapeworm faecal exam	Agent	25491	91	10
Oxyuris equi faecal exam	Agent	23012	4	7
Oxyuris equi tape strip	Agent	248	27	6
Dictyocaulus arnfieldi Baermanns	Agent	68	0	4
Fasciola hepatica faecal exam	Agent	73	3	6
Fasciola hepatica sedimentation	Agent	59	1	2
Fasciola hepatica serology	Antibody	0	0	^
Cryptosporidia mZN	Agent	5	0	1
Cryptosporidia PCR	Agent	0	0	^
Cryptosporidia snap test	Agent	43	0	3
Cryptosporidia faecal exam	Agent	5	0	1
Cryptosporidia strip test	Agent	6	1	1
Giardia snap test	Agent	44	3	2
Giardia smear test	Agent	5	0	1
Coccidia faecal exam	Agent	1424	1	5

mZN Modified Ziehl-Neelsen stain , ^ no laboratories reporting tested samples this quarter

TOXICOSIS

A summary of diagnostic toxicosis testing undertaken by contributing laboratories is presented in Table 16. Results for toxicosis are based on histopathology or clinical signs.

Table 16: Results of toxicosis testing between 1 Jan to 31 Mar 2025.
CLs = laboratories contributing tested samples

Test	Samples tested (n)	Positive (n)	CLs (n)
Grass Sickness*	9	0	1
Atypical myopathy/Seasonal Pasture Associated Myopathy	0	0	^
Hepatic Toxicosis - Ragwort	51	6	1
Hepatic Lipidosis	6	1	1
Hepatic Encephalopathy	2	2	1
Tetanus	0	0	^
Botulism	0	0	^

*Figures for EGS contained in the EGSF Report may differ to the number of cases reported here, which are laboratory reported cases only. ^ no laboratories reporting tested samples this quarter

MISCELLANEOUS

A summary of miscellaneous testing undertaken by contributing laboratories is presented in Table 17.

Table 17: Results of miscellaneous testing between 1 Jan to 31 Mar 2025.
CLs = laboratories contributing tested samples

Test	Detection	Samples tested (n)	Positive (n)	CLs (n)
Babesia caballi cELISA (APHA)	Antibody	235	0	1
Babesia caballi IFAT (APHA)	Antibody	262	0	1
Babesia caballi cELISA	Antibody	12	0	1
Theileria equi cELISA (APHA)	Antibody	235	1	1
Theileria equi IFAT (APHA)	Antibody	262	0	1
Theileria equi cELISA	Antibody	12	0	1
Dourine CFT* (APHA)	Antibody	246	1**	1
Dourine IFAT (APHA)	Antibody	4	0	1

CFT Complement fixation test, IFAT Immunofluorescent antibody test, *CFT suspect/positive samples are then tested by IFAT as a confirmatory test for Dourine, **tested by IFAT and confirmed negative

LABORATORY REPORT END

UK *Post-Mortem* Examination Reports

Details about *post-mortem* examinations (PME) were reported by **four UK Veterinary Schools and four other contributing laboratories**. In this section PME cases are summarised by age stage and the main body system involved. Over time, it is hoped that additional temporal and spatial data will be made available for inclusion.

During this quarter, PME reports were provided for 18 abortions, nine neonates, three foals, and 61 adult horses.

Right: Regional locations of PME surveillance contributors. Purple shading indicates regions where contributing laboratories are located

ABORTIONS

Between January and March 2025 there were a total of 18 abortions reported. A summary of their details are provided below in Table 18 and 19.

Table 18: Post-Mortem Examination (PME) details for abortions reported between 1 Jan to 31 Mar 2025.

PME Diagnosis	Diagnostic certainty: Suspect	Diagnostic certainty: Certain	Region of PME contributor
No diagnosis reached	**-**	**5**	
No diagnosis reached – infectious causes ruled out	-	2	East & South East
No diagnosis reached - scavenged	-	3	East & South East, Northern Ireland
EHV	**-**	**2**	
EHV-1 infection	-	2	East & South East

ABORTIONS CONT…

Table 19: Post-Mortem Examination (PME) details for abortions reported between 1 Jan to 31 Mar 2025.

PME Diagnosis	Diagnostic certainty		Region of PME contributor
	Suspect	Certain	
Congenital	**-**	**1**	
Abdominoschisis, scoliosis, neoplasm – testicular teratoma with metastasis to liver	-	1	East & South East
Placental	**-**	**1**	
Placentitis – amnionitis & funisitis, renal infarcts, suspected to be bacterial	-	1	East & South East
Umbilical	**1**	**1**	
Umbilical – excessive cord length, suspected cord torsion, placental mineralistion	-	1	East & South East
Umbilical – cord compromise	1	-	East & South East
Intrapartum stillbirth	**-**	**7**	
Peripartum dystocia (no specific cause reported)	-	3	East & South East
Peripartum dystocia alongside fetal carpal contracture	-	1	East & South East
Peripartum dystocia alongside placentitis, presumed bacterial	-	1	East & South East
No diagnosis reached	-	2	East & South East

NEONATAL DEATHS

Between January and March 2025 there were nine neonatal deaths reported.
A summary of their details are provided below in Table 20 and 21.

Table 20: Post-Mortem Examination (PME) details for neonatal deaths reported between 1 Jan to 31 Mar 2025.

PME Diagnosis	Total	Region of PME contributor
Congenital	**4**	
Marked kyphosis and mild angular limb deformity (mild carpal contracture and scapular asymmetry)	1	East & South East
Cranio-facial malformations, microphthalmia	1	East & South East
Marked carpal contracture	1	East & South East
Prematurity, patent ductus arteriosus (PDA), pulmonary atelectasis	1	East & South East

NEONATAL DEATHS CONT…

Table 21: Post-Mortem Examination (PME) details for neonatal deaths reported between 1 Jan to 31 Mar 2025.

PME Diagnosis	Total	Region of PME contributor
Misc	**5**	
Meconium impaction/retention, fibrinonecrotising colitis, intestinal perforation - small colon, peritonitis, septic	1	East & South East
Hypoxic Ischaemic Encephalopathy (HIE) (Neonatal Maladjustment Syndrome/Dummy foal)	3	East & South East, West & South West
Urinary bladder rupture, uroperitoneum	1	East & South East

FOAL DEATHS

Between January and March 2025 there were a total of three foal deaths reported.
A summary of their details are provided below in Table 22.

Table 22: Post-Mortem Examination (PME) details for foal deaths reported between 1 Jan to 31 Mar 2025.

PME Diagnosis	Total	Region of PME contributor
Hepatitis - acute, myocarditis, Tyzzer's disease (Clostridium piliforme necrotising hepatitis)	1	East & South East
Cellulitis, arthritis - septic (bacterial)	1	East & South East
Ceocecal intussusception, cyathostominosis, anoplocephalidae	1	East & South East

ADULT DEATHS

Between January and March 2025 there were a total of 61 adults deaths reported.

A summary of their details are provided below in Table 23 to 24.

Table 23: Post-Mortem Examination (PME) details for adult deaths relating to cardiovascular and gastrointestinal reports between 1 Jan to 31 Mar 2025.

PME Diagnosis	Total	Region of PME contributor
Cardiovascular	**2**	
Haemopericardium, myocardial fibrosis	1	East & South East
Aortic mineralisation, chorda tendinae rupture	1	East & South East
Gastrointestinal	**17**	
Gastric		
Gastric rupture, septic peritonitis	1	North-west
Small intestinal		
Small intestinal torsion/volvulus	1	Scotland
Small intestinal strangulation	1	East & South East
Small intestinal infarction, septic peritonitis, serositis	1	East & South East
Large intestinal		
Intussusception - caecocolic, cyathostominosis (1 case), anoplocephalidae (2 cases)	2	East & South East
Impaction - large colon, pelvic flexure, gastric ulceration	1	East & South East
Intestinal displacement - left dorsal displacement/nephrosplenic entrapment, intestinal rupture - large colon, septic peritonitis	1	Northern Ireland
Intestinal rupture - caecal, septic peritonitis	1	East & South East
Intestinal rupture - large colon, necrotising enterocolitis, sepic peritonitis	1	East & South East
Typhlocolitis, salmonellosis (2 cases), cyathostominosis (1 case)	4	East & South East , North West of England, Scotland
Typhlocolitis , *Clostridium difficle* infection, cyathostominosis, septic peritonitis, pleuritis	1	East & South East
Cyathostominosis	1	West & South West
Misc		
Septic peritonitis	1	East & South East

Table 24: Post-Mortem Examination (PME) details for adult deaths relating to hepatic, miscellaneous, musculoskeletal and neoplasia reports between 1 Jan to 31 Mar 2025.

PME Diagnosis	Total	Region of PME contributor
Hepatic	3	
Hepatic cirrhosis	1	West & South West
Hepatic failure - acute	1	Northern Ireland
Hepatopathy	1	East & South East
Miscellaneous	4	
Chronic laminitis, dental disorder (unspecified)	1	West & South West
Equine herpesvirus type 4 (EHV-4) infection, *Streptococcus zooepidemicus* infection, ulcerative keratitis, gastric ulceration	1	East & South East
Traumatic injury - road traffic accident	1	West & South West
Granulomatous steatitis (yellow fat disease)	1	North West of England
Musculoskeletal system	12	
Subsolar abscess, pedal osteitis (1 case)	2	West & South West
Fracture of thoracic limb - phalanx, proximal, delayed union/non-union	1	North West of England
Fracture of pelvic limb - femur	1	East & South East
Fracture of pelvis - ilial shaft	1	West & South West
Fracture of vertebral column - second cervical vertebra	1	East & South East
Laminitis	1	Scotland
Pedal Bone (P3) rotation - forelimb	1	West & South West
Tendon rupture - superfical digital flexor tendon	1	East & South East
Tendon laceration - hind limb cannon region	1	East & South East
Chronic tenosynovitis with fibrosis	1	West & South West
Wound (unspecified), cellulitis, *Clostridial myositis*, endotoxaemia	1	East & South East
Neoplasia	4	
Neoplasm – ovarian	1	West & South West
Neoplasm - nasal	1	East & South East
Sarcoid (site unspecified)	1	West & South West
Neoplasm - renal, nephrolithiasis	1	East & South East

ADULT DEATHS CONT...

Table 25: Post-Mortem Examination (PME) details for adult deaths relating to neurological, no diagnosis reached, reproductive, respiratory and welfare reports between 1 Jan to 31 Mar 2025.

PME Diagnosis	Total	Region of PME contributor
Neurological	**3**	
Clostridial myositis at base of tail, cauda equina meningomyelitis	1	East & South East
Encephalitis (EHV-1 ruled out)	1	North West of England
Cervical vertebral stenotic myelopathy (CVSM, wobbler disease)	1	West & South West
No diagnosis reached	**3**	
Sudden death - cause unknown (unexplained), chronic gastritis	1	East & South East
Gastric ulceration, pulmonary oedema	1	North West of England
Ill-thrift	1	East & South East
Reproductive	**2**	
Uterine artery rupture, haemoabdomen	1	East & South East
Uterine torsion, uterine artery rupture	1	West & South West
Respiratory	**2**	
Bronchopneumonia	1	Scotland
Pleural effusion, aortic mineralisation	1	East & South East
Welfare	**8**	
Malnutrition, parasite - cyathostominosis, typhlocolitiso, verminous arteritis	2	North West of England
Fracture of vertebral column - cervical, malnutrition, cyathostominosis, typhlocolitis	1	North West of England
Gastric impaction, malnutrition	1	North West of England
Malnutrition/emaciation	3	East & South East, North-west
Upper respiratory tract infection (cause unspecified)	1	North West of England

International Collating Centre

ICC 2025 Q1 SHORT REPORT

The International Collating Centre (ICC) Q1 2025 report has been circulated to subscribers. A short summary is presented below with the full version available online (www.equinesurveillance.org/iccview/resources/2025Q1summ.pdf), countries are coded according to ISO 3166 international standard. The ICC provides almost daily email updates on national and international equine disease outbreaks, contact equinesurveillance@vet.cam.ac.uk to subscribe. Current and previous outbreak reports can be found online in an interactive platform www.equinesurveillance.org/iccview/.

ICC 2025 Q1

395 reports issued
averaging 6 reports per working day

RESPIRATORY CONDITIONS (245 reports)

EHV-1
(n=37)

FR NL DE
SE CH UK USA

EHV-5
(n=1)

IT

EHV-4
(n=54)

FR DE NL
QA CH UK USA

STRANGLES
(n=142)

CA FR DE IE
NL SE CH USA

RHODOCOCCUS EQUI
(n=1)

IE

EQUINE INFLUENZA
(n=8)

IE NL USA

S. ZOOEPIDEMICUS
(n=2)

DE SE

GASTROINTESTINAL CONDITIONS (41 reports)

SALMONELLOSIS
(n=21)

BE CA DE
IE NL CH USA

LAWSONIA INTRACELLULARIS (n=1)

IE

CORONAVIRUS
(n=16)

NL

RHODOCOCCUS EQUI
(n=3)

FR

REPRODUCTIVE CONDITIONS (46 reports)

CEM (n=4)
DE

EHV-1 (n=38)
FR DE IE JP
NL SE UK USA

EHV-1/-4 (n=1)
DE

EHV-4 (n=1)
NL

LEPTOSPIROSIS (n=1)
BE

KLEBSIELLA PNEUMONIAE (n=1)
IE

NEUROLOGICAL CONDITIONS (33 reports)

EEE (n=2)
USA

EHV-1 (n=27)
CA FR DE NL
JP SE UK USA

RABIES (n=2)
USA

WNV (n=2)
FR DE

MISCELLANEOUS CONDITIONS (30 reports)

POTOMAC HORSE FEVER (n=1)
USA

EIA (n=18)
BG CA CL
IT NL USA

AHS (n=2)
ZA

LEPTOSPIROSIS (n=2)
IT CH

PIROPLASMOSIS (n=3)
IT CH

CORONAVIRUS (n=2)
NL

EGS (n=4)
UK

International Collating Centre

The ICC continues to be a vital resource in the ongoing monitoring and management of equine health worldwide.

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- B&W Equine Group Ltd
- Biobest Laboratories Ltd
- BioTe
- The Donkey Sanctuary
- Donnington Grove Veterinary Group
- Hampden Veterinary Hospital
- The Horse Trust
- IDEXX Laboratories
- Langford Veterinary Services
- Liphook Equine Hospital
- MBM Equine
- Nationwide Laboratories
- Newmarket Equine Hospital
- Rainbow Equine Hospital
- Rossdales Laboratories
- Royal Veterinary College
- Sussex Equine Hospital
- Three Counties Equine Hospital
- University of Bristol
- University of Cambridge
- University of Edinburgh
- University of Glasgow
- University of Liverpool
- Valley Equine Hospital
- VPG (Veterinary Pathology Group) Exeter
- VPG (Veterinary Pathology Group) Leeds
- Westgate Laboratories Ltd

All laboratories contributing to this report operate Quality Assurance schemes. These schemes differ between laboratories; however, all the contagious equine metritis testing reported was accredited by BEVA, with the exception of the APHA, which acts as the reference laboratory.

We are extremely grateful to the Horserace Betting Levy Board (HBLB), Racehorse Owners Association (ROA) and Thoroughbred Breeders' Association (TBA) for their continued combined contribution to Equine Infectious Disease Surveillance.

We welcome feedback including contributions on focus articles to the following address:

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