

Applying risk perception to equine infectious diseases in the UK & international horse movements

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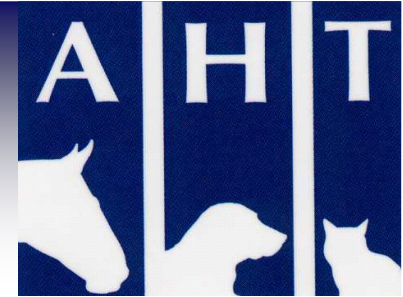
Animal Health Trust,

Newmarket, UK



Equine infectious diseases

- How do we protect our horse populations from equine infectious diseases?
- By maintaining an absence of infection
 - Easy to say, much harder to achieve
 - Need to understand infectious risks
 - Conduct of **Risk Assessments**
 - Apply practical mitigation measures which are informed by Risk Assessments
 - **Codes of Practice** may outline mitigation measures



Two definitions....

Risk Assessments

- *Objective (quantitative or qualitative) evaluation of risk in which assumptions and uncertainties are clearly considered and presented*

Codes of Practice

- *Documented set of recommended or preferred processes, actions or organisational structures to be applied in a given setting*



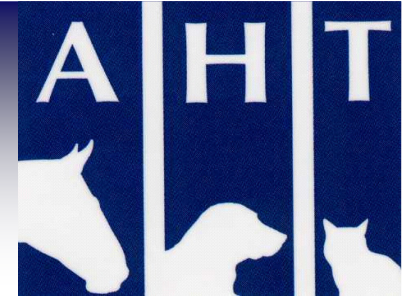
Levels of operation

Risk Assessments

- Individual / Premises (endemic diseases)
- Breed / Industry sector (endemic & notifiable)
- Country / Region (reportable/notifiable diseases)

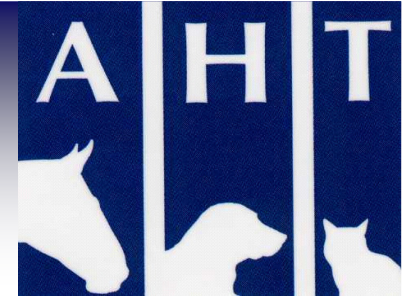
Codes of Practice

- Individual / Premises
- Breed / Industry sector
- May be part of a national control strategy and linked to specific disease legislation



Individual/premises level

- Probably intuitive rather than formal & recorded
- Often based on previous **experience** and/or **expectation**



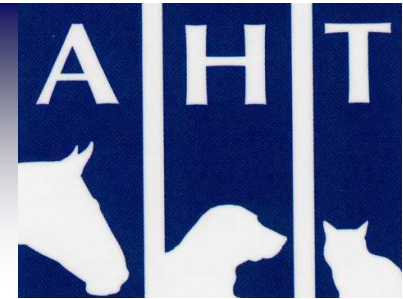
Individual/premises level

- **Risk Assessment** based on **experience**
 - *“In the past horses bought through market X have introduced strangles to my riding school”*
- **Mitigating measure** informed by risk assessment
 - *“To avoid introducing strangles to my riding school, I will no longer buy horses from market X”*



Individual/premises level

- **Risk Assessment** based on **expectation**
 - *“Horses vaccinated against EHV-1 are less likely to abort due to EHV-1 and then cause other abortions”*
- **Mitigating measure** informed by risk assessment
 - *“To avoid abortions on my stud farm only EHV-1 vaccinated horses will be permitted for foaling”*
- This is also recommended by a Code of Practice!
 - HBLB Codes of Practice 2012
 - Widely adopted across the European TB breeding industry



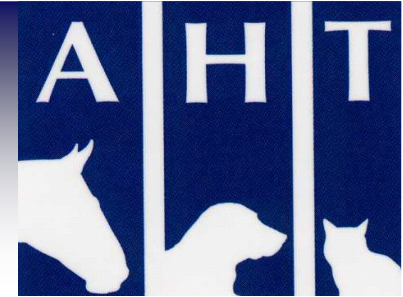
Individual/premises level

Vaccination

Vaccination of all breeding stock, under veterinary direction, raises the level of protection against EHV and is believed to be advantageous in preventing abortion storms. However, vaccination will not necessarily provide total protection.

It is recommended that a herpesvirus vaccine, licensed for use as an aid in the prevention of both abortion and respiratory disease caused by EHV-1 and EHV-4, is used for breeding stock.

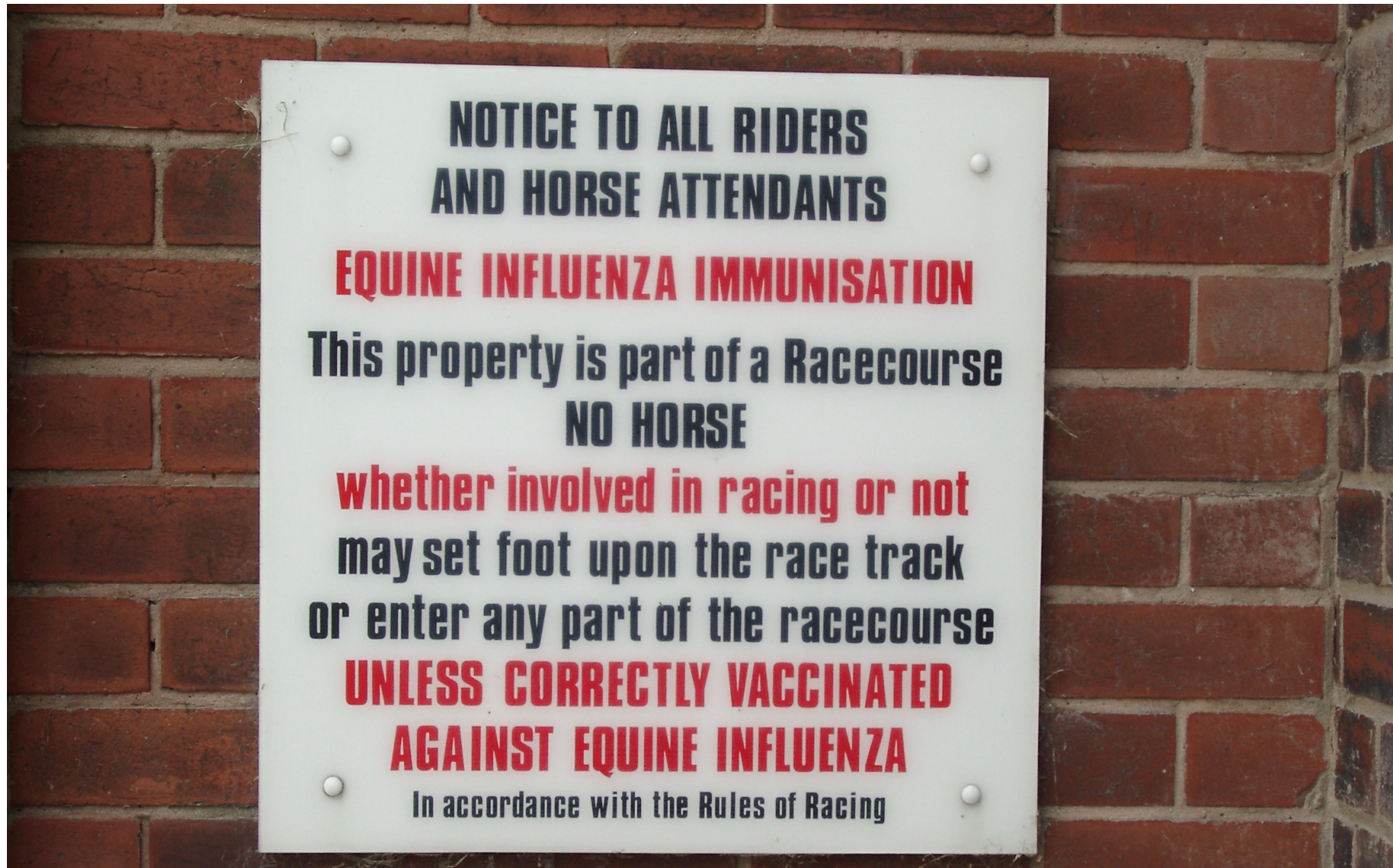
Veterinary advice should be sought on choice, timing and administration of vaccines. See Appendix 8 for vaccine details.

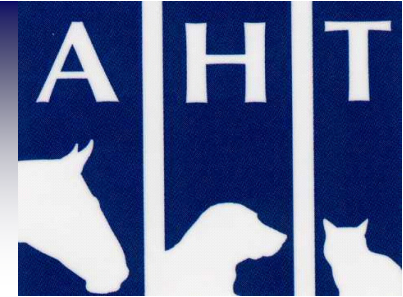


Breed/industry sector

- May follow significant disease outbreak events
 - Often significant financial consequences through adverse effect on activity and/or trade
- **Adverse Event**
 - TB racing stopped in Great Britain in 1979 due to equine influenza (EI)
- **Risk Assessment** by The Porchester Committee
 - Lack of mandatory vaccination had predisposed racing to the rapid and widespread effects of EI
- **Mitigating measure** informed by risk assessment
 - Mandatory vaccination introduced in 1981 & industry funded surveillance established

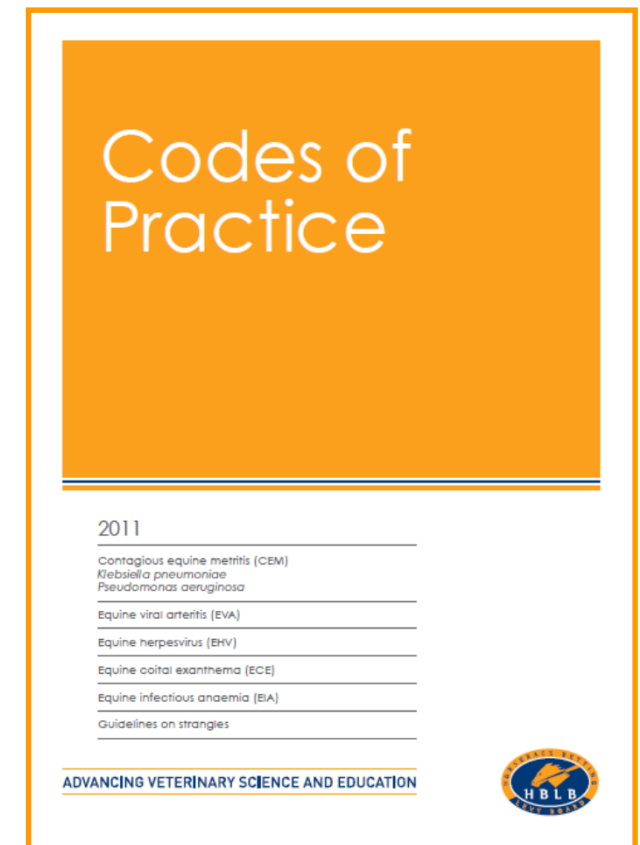
Breed/industry sector





Breed/industry sector

- May follow significant disease outbreak events
 - Subsequent prevention through laboratory screening to confirm absence of infection
 - HBLB Codes of Practice
 - CEM & other venereal bacteria 1977
 - Equine viral arteritis (EVA) 1993
 - Equine herpesvirus (EHV) 1979
 - Equine coital exanthema (EHV-3)
 - **Equine infectious anaemia (EIA) 2006**
 - Dourine (*T. equiperdum*) 2011
 - Guidelines on strangles (*S. equi*)



HBLB Codes of Practice



pdf version available online at www.hblb.org.uk

The screenshot shows a web browser window with the URL 'http://codes.hblb.org.uk/'. The page title is 'Codes of Practice 2012'. The HBLB logo is in the top left. A navigation menu includes 'Home', 'CEM', 'EVA', 'EHV', 'ECE', 'EIA', 'Dourine', 'Strangles', 'Appendix', and 'Downloads'. A search bar is on the right. The main content area has a left sidebar with a menu of diseases: Introduction, Contagious Equine Metritis - CEM, Equine Herpesvirus - EHV, Equine Viral Arteritis - EVA, Equine Corial Exanthema - ECE, Equine Infectious Anaemia - EIA, Dourine, Strangles, Appendix, and Downloads. The main text area is titled 'Home' and contains a welcome message, a description of the codes, and a 'New for 2012' section with four bullet points. A yellow box at the bottom contains a paragraph of text. The footer has links for 'Terms and Conditions', 'Feedback', and 'Contact the HBLB'.

- Introduction
- Contagious Equine Metritis - CEM
- Equine Herpesvirus - EHV
- Equine Viral Arteritis - EVA
- Equine Corial Exanthema - ECE
- Equine Infectious Anaemia - EIA
- Dourine
- Strangles
- Appendix
- Downloads

Home

Welcome to the HBLB's new online format of the Codes of Practice. The Codes set out voluntary recommendations to help breeders, in conjunction with their veterinary surgeons, to prevent and control specific diseases in all breeds of horse and pony. Information can be found on the diseases listed here in the grey menu box to the left.

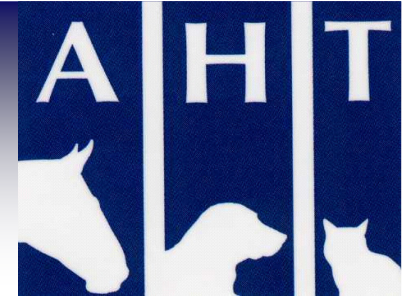
Each disease section details a number of topics, from notification procedures and clinical signs, to export certification. Use the left hand menu to navigate between each disease and relevant subsection. You can also search for information by keyword in the search facility.

Further information, including contact details for Animal Health Offices, guidance and glossary of terms can be found in the [Appendix](#) section. If you have a question, please feel free to [contact](#) the HBLB Equine Grants Department.

New for 2012:

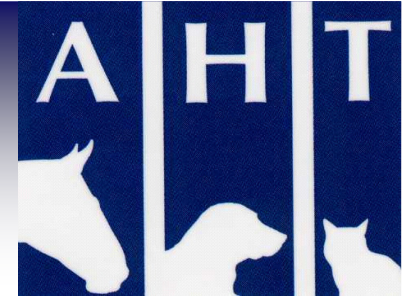
- Strangles: [Blood test](#) recommended for new horses arriving on the premises.
- Why is it important to follow the Codes?: [Read the article in Thoroughbred Owner Breeder magazine](#)
- CEM: [PCR testing](#) available for *K. pneumoniae* and *P. aeruginosa*, as well as CEMO.
- Dourine: New code of practice for [dourine](#).

The HBLB acknowledges with thanks the work of the Codes of Practice sub-committee which reviews the Codes and recommends any modifications on scientific or practical grounds. The sub-committee comprises of veterinary experts and stakeholder representatives of the HBLB's Veterinary Advisory Committee, Thoroughbred Breeders Association, Newmarket Stud Farmers Association, Department for Environment, Food and Rural Affairs, British Equine Veterinary Association and British Horse Society. France, Germany, Ireland and Italy are also represented. The veterinary expertise covers equine breeding of Thoroughbreds and non-Thoroughbreds, including AI.



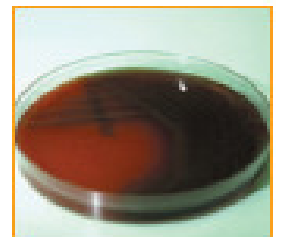
HBLB Codes: overview

- Reviewed and published annually
 - Last meeting 19th September 2012!
- Adopted as Thoroughbred industry minimum standard in UK, Ireland, France, Germany & Italy
- Have been referred to by Defra in control of outbreaks of notifiable diseases CEM & EVA in UK
- Supported by a laboratory accreditation scheme for CEM
 - Operated by Animal Health Veterinary Laboratories Agency



HBLB Codes: history

- Introduced in 1978
 - Following major outbreak of CEM in 1977
 - Covered bacterial venereal pathogens of CEMO, *Pseudomonas aeruginosa* and *Klebsiella pneumoniae*
- Later updates
 - EHV-1 abortion and paralytic disease
 - Equine viral arteritis
 - Strangles (*S. equi*) guidelines
 - **Equine infectious anaemia – was new in 2008**
 - EHV-3 coital exanthema – was new in 2009
 - Dourine (*T. equiperdum*) – was new in 2012



HBLB Codes: approach

- Disease & Notification procedure
- Clinical signs & Transmission
- Prevention – hygiene & vaccination
- Diagnosis & Control of infection
- Treatment
- Confirmation of freedom of disease
- Export implications

Codes of Practice

2011

Contagious equine meningitis (CEM)
Klebsiella pneumoniae
Pseudomonas aeruginosa

Equine viral arteritis (EVA)

Equine herpesvirus (EHV)

Equine colitis exanthemata (ECE)

Equine infectious anaemia (EIA)

Guidelines on strangles

ADVANCING VETERINARY SCIENCE AND EDUCATION



HBLB Codes: EIA

Codes of Practice

CODE OF PRACTICE FOR EQUINE INFECTIOUS ANAEMIA

The Disease

Equine Infectious Anaemia (EIA), sometimes known as Swamp Fever, is caused by the equine infectious anaemia virus (EIAV). The virus occurs worldwide, including in parts of mainland Europe, in Thoroughbred and non-Thoroughbred horse populations.

Notification Procedures

In the UK, EA is **notifiable by law** under the Infectious Diseases of Horses Order 1987. Under the Order, anyone who owns, manages, inspects or examines a horse which is affected or is suspected of being affected by the disease must notify the appropriate Divisional Veterinary Manager (DVM) of Defra. DVMs are based in the Animal Health Divisional Offices of Defra. See Appendix 1 for Animal Health Offices contact information.

Under the Order, Defra may declare the premises where disease is suspected to be as an infected place and impose restrictions on horses of those premises. A veterinary enquiry will be carried out under the direction of the DVM to determine if EIA is present. The Order also provides Defra with powers to enforce measures for vector control and disinfection.

As there is currently no cure for EIA, any horse testing positive will be subject to compulsory slaughter and disposal under the control of the DVM, without compensation. The Equine Infectious Anaemia (Compensation) (England) Order 2006 stipulates compensation to the value of £1 per animal for horses subject to compulsory slaughter for EIA.

Clinical Signs

The disease may take an acute, chronic or sub-clinical form and clinical signs are extremely variable.

Outward signs of the acute form include fever, depression, increased heart and respiratory rate, haemorrhaging, bloody diarrhoea, loss of co-ordination, poor performance, ataxia, rapid weight loss, skin swelling and jaundice. Acutely infected horses carry high levels of virus in the blood and are potentially infectious to other horses and donkeys.

The chronic form may be characterised by recurring bouts of fever, depression, anaemia, weakness or weight loss, interspersed with periods of normality.

Any horse displaying severe, unexplained anaemia should be isolated and tested for EA as soon as possible.

Sub-clinically infected horses may not show any clinical signs of disease.

Transmission of Disease

The EAV is transmitted between horses by transfer of infected blood or blood products. This can occur in the following ways:

- By insect vectors such as biting flies (including horse, deer and stable flies) and (very rarely) mosquitoes.
- By administration of infected blood products (including plasma) and unauthorised blood-based veterinary medicinal products.
- By contaminated veterinary or dental equipment.
- By other equipment that may become contaminated by blood and act as a vector between animals, e.g. twitches and curry combs.
- From mare to foal via the placenta, or rarely, via virus-contaminated colostrum or milk in newborn foals.

Transmission through semen is uncommon but is a potential risk.

Both clinically and sub-clinically affected horses can be a source of infection for other horses, although animals suffering acute disease or recurring bouts of chronic disease are likely to be the most highly infectious.

Prevention

There is no vaccine available for EIA. Prevention of EIA is therefore based on the establishment of freedom from infection by blood ("serological") testing.

A blood sample for the EIA test can be collected from the horse at the same time as the blood sample for the EVA test (which should be taken after 1 January and within 28 days before mating).

Recommendations for prevention – all horses

In every year, the safest option is to establish freedom from infection, by means of a blood test, in mares, stallions and teasers before breeding activities commence. This includes all resident horses and horses due to visit the premises, prior to arrival.

Mare owners should check the stallion and/or boarding stud's requirements well in advance of the mare's date of travel. Stallion studs may require pre-mating EA testing of all visiting mares, whether or not they have recently or ever visited a country where EA is endemic or has occurred recently. If testing is required, the blood sample should be taken after 1 January and ideally within 28 days of mating.

The same timing and recommendations apply to pre-season testing of stallions (including teasers) in any year.

The relevant breeders' association may have additional testing requirements.

Recommendations for prevention – horses intended for travel to countries affected by EA

Owners should attempt to ensure, as far as possible, that their horse will not come into direct contact with horses at risk of EA infection while in a country where EA is endemic or has occurred recently. This includes horses quarantined for EA, horses at premises that are restricted or under investigation for EA and horses that do not have a recent negative EIA blood test result.

Recommendations for prevention – horses arriving in or returning to the UK from an affected country

The level of risk associated with any particular horse will depend on the management of the horse while it was in the affected country. Depending on the particular scenario, the following recommendations apply:

1. Horses coming from infected premises or premises under quarantine or investigation for EA, or that have had contact with any horse considered to be a primary contact in an affected country

These horses should not be imported and should be prevented from being imported by the affected country's veterinary authorities.

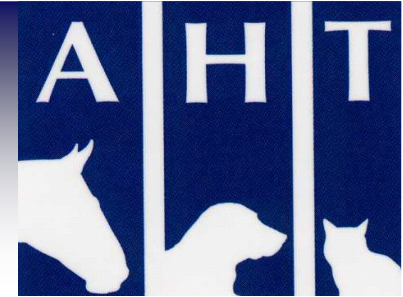
If, for whatever reason, importation does occur, in all cases, the safest option is to isolate the horse in a vector-proof stable and to blood test the horse at least 30 days after the last known contact or the date of importation. The test should be repeated at 60 and 90 days under the direction of the DVM.

Horses regarded as primary contacts (those arriving from premises which are infected, quarantined or under investigation for EIA) are at increased risk of disease and should be placed in isolation and reported immediately to the DVM, who will arrange for a veterinary enquiry to be carried out. The DVM will decide on measures to be taken, taking into consideration the risk factors involved. Restrictions may be placed on the premises where the horse is located.

The level of risk for horses regarded as secondary contacts (those which have come into contact with primary contact horse(s)) depends on the degree and nature of the connection with the primary contacts. Each individual case should be considered carefully but all such horses should be closely monitored and, if there is any cause for concern, the horse should be isolated and reported to the DVM.

2. Other horses arriving from an affected country

Horses arriving or returning from an affected country that have not visited infected premises or premises under quarantine or investigation, or come into contact with infected horses or primary contacts, have a low risk of infection. The health of the horse should be monitored and veterinary advice sought if there is any cause for concern.



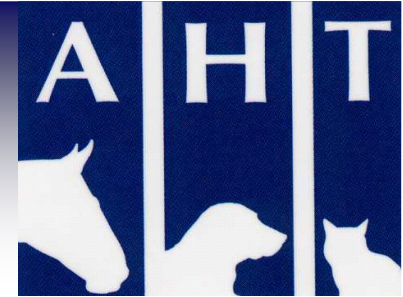
Country

- Conducted by Defra in UK
- Assess risks on diseases **not** present in UK that could be significant should they incur
 - Geography and extent of outbreak
 - Species and numbers affected
 - Character of infectious agent involved
- **Qualitative** rather than quantitative
 - Need for rapid assessment
 - Data often lacking for a quantitative assessment



Country

- Aim to assess
 - The risk of incursion of infection through imported commodities
 - The risk that UK animals have already been infected as a result of this outbreak
- Forms of assessment
 - **Preliminary Outbreak Assessments**
 - Response to specific country outbreaks
 - **Qualitative Risk Assessments**
 - Often regional level assessments



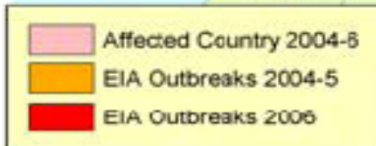
Defra QRAs

- Assess risk from imported commodities
 - Consider all potential pathways
 - Animals, germplasm & products + legal and illegal
 - Accept that unable to assess some risks
 - People, contaminated objects, natural phenomena....
 - Evaluation of risk classified simply as

Negligible	So rare that it does not merit to be considered
Very low	Very rare but cannot be excluded
Low	Rare but does occur
Medium	Occurs regularly
High	Occurs very often
Very high	Events occur almost certainly



EIA in Europe 2004-6



Equine Infectious Anaemia in Europe 2004 - 2006

Outbreak and Affected Country Data
from ADNS-SANCO and OIE Handistatus II

Map by IAHD - IDM&RA
September 2006



ArcGIS 8 Development Team
March 2000

Source: ESRI Data & Maps CD
Created in ArcGIS 8 using ArcMap

EIA – Ireland 2006

- **Outbreak features**
 - 38 cases June – December 2006

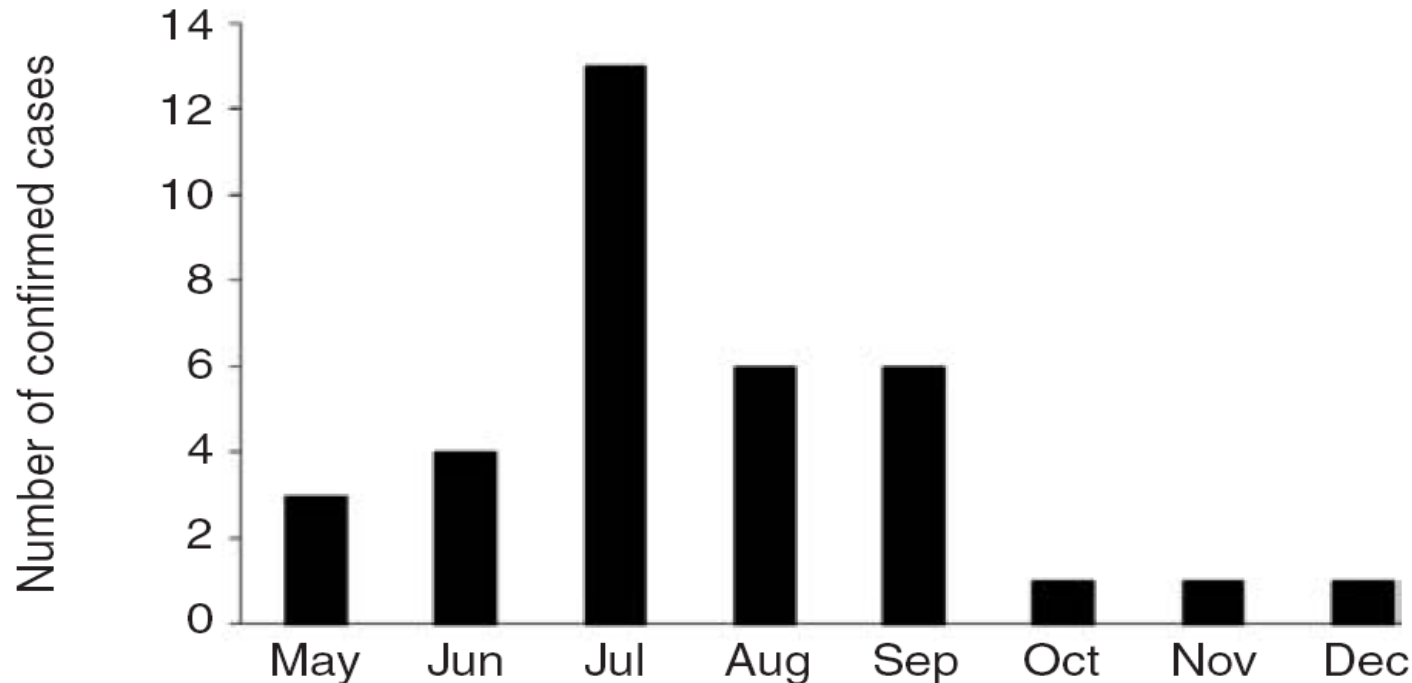
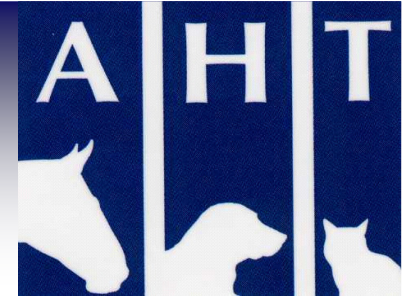
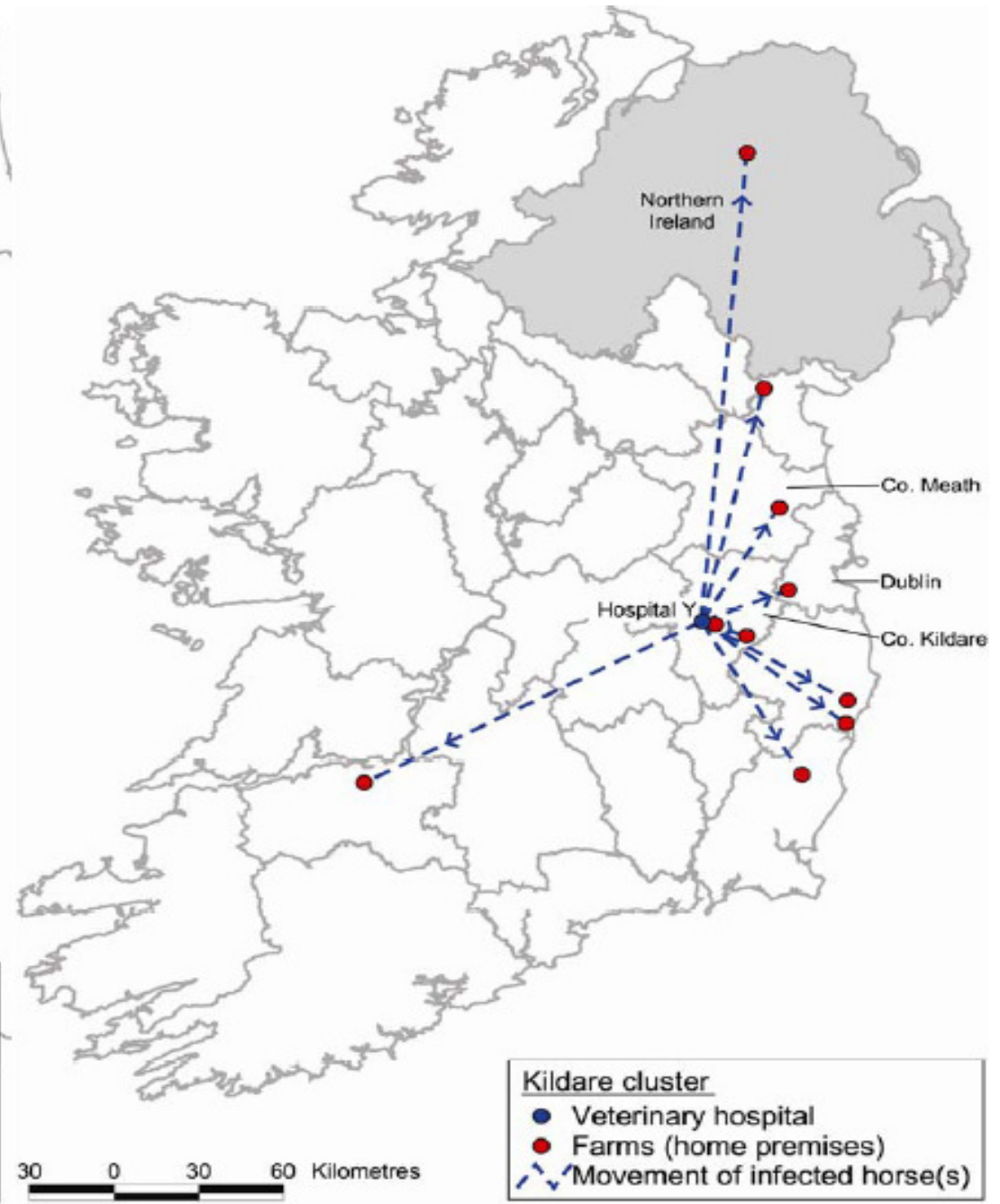
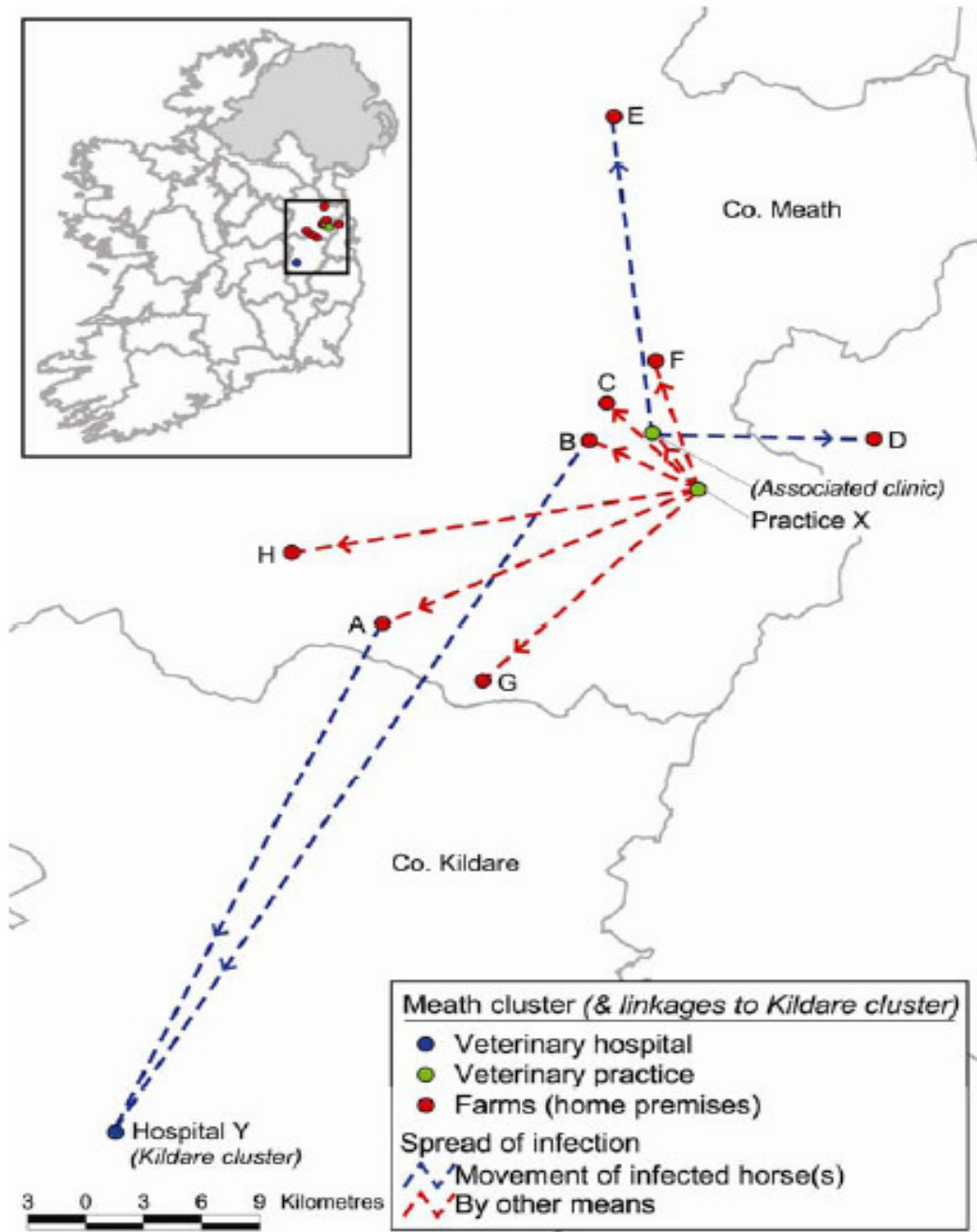


Fig 1: The number of confirmed EIA cases during 2006, by month date of diagnosis. No diagnostic testing was conducted on the 3 unconfirmed cases (U1, U2, U3).



EIA – Ireland 2006

- Outbreak features
 - 38 cases June – December 2006
 - Meath (n=21) & Kildare (n=17) clusters
 - EIAV in hyperimmune plasma as source



Consequences of EIA in Ireland



- Active and regular communication: Defra and Industry
 - **Preliminary Outbreak Assessment published 27th July 2006**
 - Regular e-mail and website situation report updates
 - Joint Defra/BEVA statement (CVO & BEVA President)
 - Teleconferencing – chaired by CVO or Deputy CVO
 - **Defra EIA Code of Practice published August 2006**
 - Notifiable Diseases of Equines Expert Group convened
 - **Qualitative Risk Assessment on EIA threats to UK**



Equine Infectious Anaemia in Ireland

Note: Defra's International Animal Health Division (IAHD) monitors outbreaks of specified disease around the world. Equine Infectious Anaemia (EIA) is among those diseases of concern.

Disease Report

The Republic of Ireland (RoI) reported two cases of equine infectious anaemia (EIA) on two stud farms in north-eastern part of the country on 16 June 2006. The authorities suspect that the introduction of new animals or animal products may have been implicated in these cases (OIE, 2006). The Republic of Ireland has never reported a case of equine infectious anaemia before this incident.



KEY Outbreak of Equine Infectious Anaemia - Ireland July 2006
Meath County

On 21 July 2006, RoI further informed Defra that subsequent investigations have revealed that more cases have been confirmed in already identified high-risk contact horses (Sheridan, 2006).

Situation Assessment

The last case of EIA in the UK was reported in 1976. EIA is a contagious viral disease that affects horses only.

The disease may be manifested in an inapparent, acute or chronic form. While most of infected horses will die following the onset of an acute form within the few weeks following infection, those that survive will become lifelong carriers of the virus. Currently, there is no know effective treatment for EIA (MacAllister and Floyd, 2006). In most cases, the disease occurs sporadically (Cvetnic, 1983). In natural conditions, the disease is most likely transmitted by blood suckling insects (e.g. stable flies, mosquitoes). Horses with acute clinical signs of the disease seem to play the most important epidemiological role as a source of the virus. The other most likely potential pathways for the transmission of the disease are contaminated needles, syringes, dental and tattooing equipment (MacAllister and Floyd, 2006) including contaminated biological preparations (Cvetnic, 1983).

At this stage, it would appear that the most likely pathway for the introduction of the disease from RoI to the UK is the movement of live horses that may have been in contact with the infected horses. On the basis of a limited information, it appears that the disease has been confined to a few risk compartments in the RoI where infected horses have been detected so far. As of 27 July 2006, RoI authorities have informed Defra that a total of 19 horses that may have been in contact with horses at the high risk compartments have arrived to the UK.

Equine Infectious Anaemia Code of Practice August 2006

*This Code of Practice
was developed by Defra
in conjunction with
the horse industry.*

INTERNATIONAL ANIMAL HEALTH DIVISION

International Disease Monitoring Unit

Qualitative Risk Assessments

www.defra.gov.uk/animalh/diseases/monitoring/index.htm



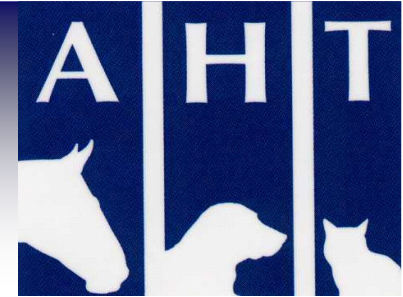
Ref: VITT1200/EIA

Version No.:	1
Date:	14 September 2006

EQUINE INFECTIOUS ANAEMIA:

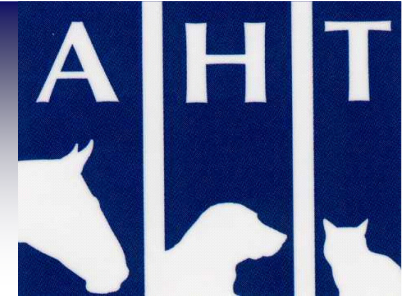
POTENTIAL RISK FACTORS FOR THE INTRODUCTION OF THE VIRUS TO GREAT BRITAIN FROM EU MEMBER STATES AND COUNTRIES NEIGHBOURING THE EU

Consequences of EIA in Ireland



- Changes in legislation (England only) in 2006
 - Specified Diseases (Notification and Slaughter) Order 2006
 - Implemented 29th August 2006
 - Provides powers to compulsorily slaughter EIA positives under the Animal Health Act 1981
 - Equine Infectious Anaemia (Compensation) (England) Order 2006
 - Implemented 6th November 2006
 - Provides compensation for horses compulsorily slaughtered of £1

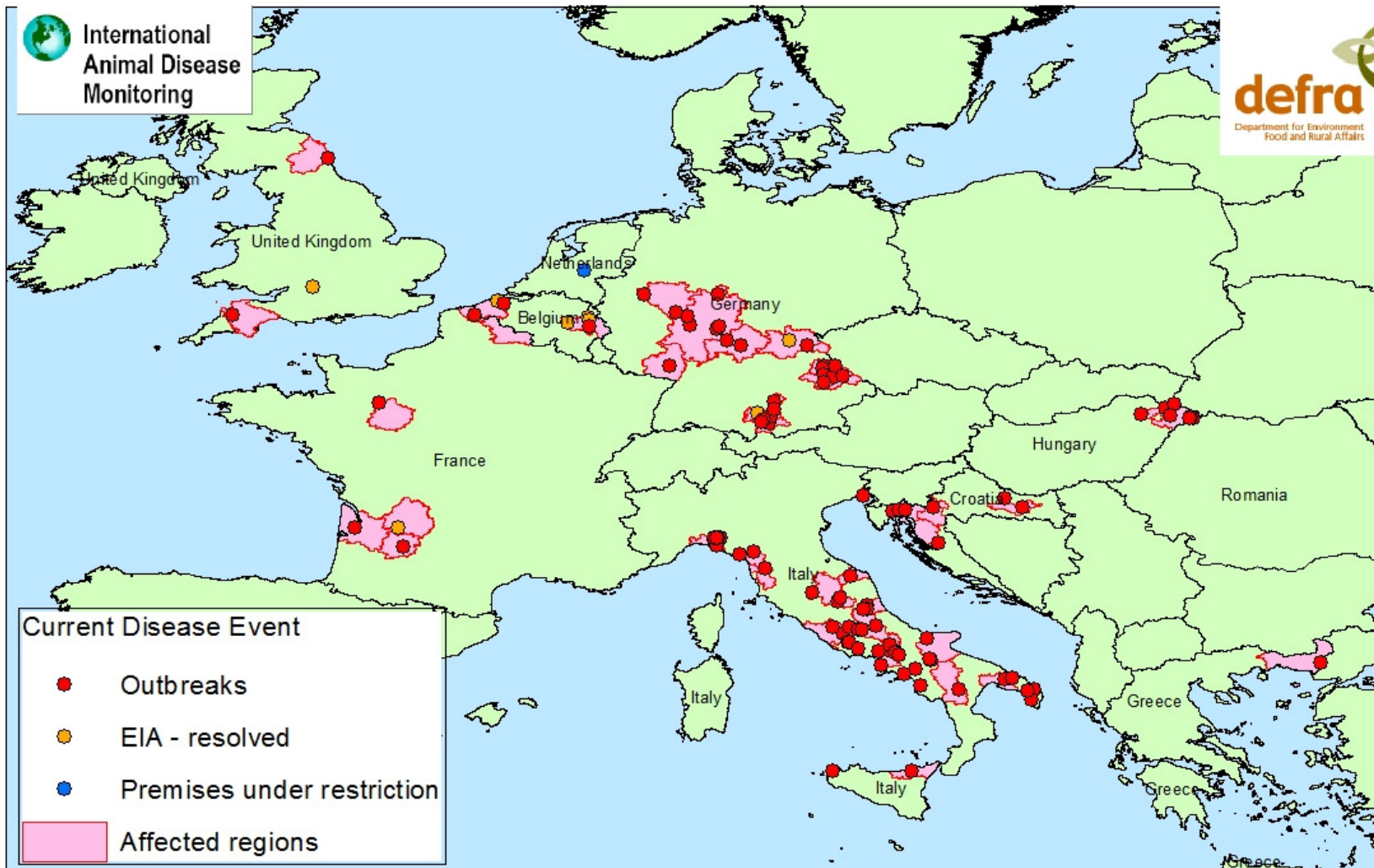
Consequences of EIA in Ireland



- Industry initiated controls in 2006
 - Pre-sales Coggins testing
 - HRA/BHB programme for testing Irish runners and horses returning from Ireland
 - Discussion of EIA by HBLB CoP sub-committee
 - Reference to EIA in 2007 HBLB Codes
 - EIA CoP printed and distributed with 2007 HBLB Codes
 - EIA testing required in NSFA 2007 Breeding Regulations



EIA in Europe 2010



Actual Scale 1:15,000,000

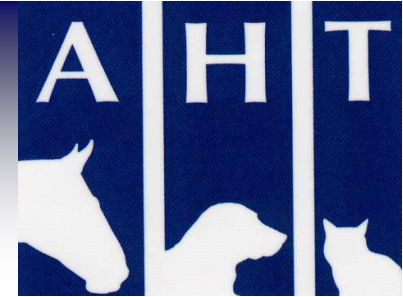
Equine Infectious Anaemia outbreaks in Europe, 2010

Date prepared 19/11/2010

Map prepared by IDM

0 105 210 420 630 840
Kilometers

EIA – UK January 2010

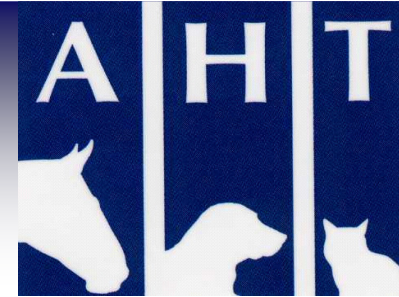


Department for Environment, Food and Rural Affairs

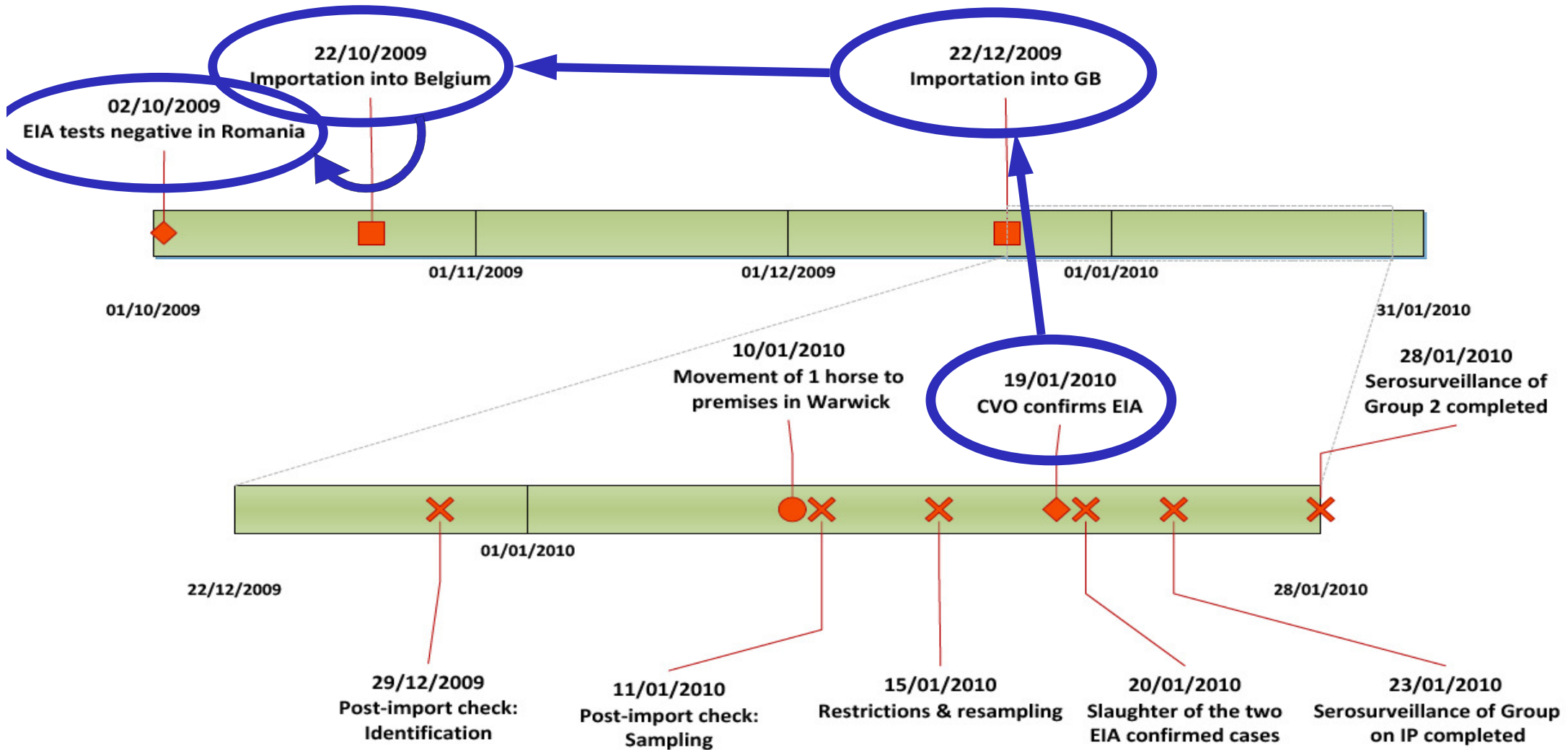
Veterinary Science Team

Equine Infectious Anaemia, Wiltshire, January 2010

Situation at 4th February 2010



EIA – UK January 2010



Equine Infectious Anaemia in Belgium

Note: Defra's Global Animal Health (GAH) monitors outbreaks of high impact diseases around the world. Equine Infectious Anaemia (EIA) is among those diseases of major concern.

Reports

It is reported an outbreak of Equine Infectious Anaemia (EIA) in a horse in West Flanders (ADNS, 2010; OIE, 2010) (see map). This is the first ever report of EIA from Belgium.

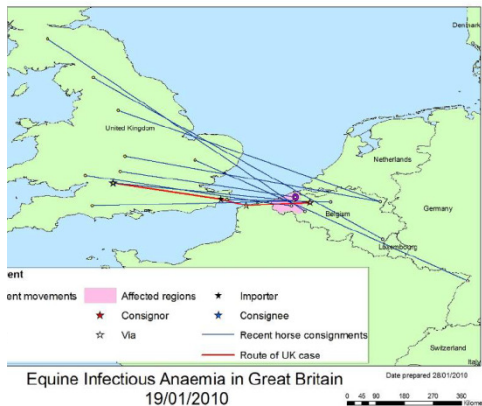


According to the report, there were two consignments of horses imported to Belgium from Romania in October 2009 and the case was reported from one of these consignments.

2 Situation Assessment

Some horses from these two consignments were pulled together into one consignment which was despatched to the UK on 22 December 2009. These horses were subsequently

imported to the UK as part of non-discriminatory post-movement testing for compliance with EU regulations. In total, two horses tested positive for EIA and the Belgian and Romanian owners were informed accordingly. Tracing the remaining horses in Belgium led to the identification of a further positive horse from this consignment (see map), and this was reported to ADNS and OIE.



Horses from all EU countries (with the exception of Romania) are able to move freely around the EU with the correct health document, identification and passports. Horses from Romania are required to travel under specific EU rules (European Commission, 2007) requiring official certification, including a negative test result for EIA in the previous 30 days before the movement.

Global

OUS
 (AH) monitor
 nia (EIA) is

Equine Infectious Anaemia (EIA) map). T

EQUINE INFECTIOUS ANAEMIA:

POTENTIAL RISK FACTORS FOR THE INTRODUCTION OF THE VIRUS TO THE UNITED KINGDOM FROM EU MEMBER STATES

An Update

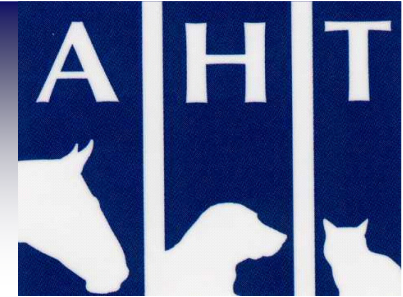
Version No.: 3	
Date:	08 March 2010

International Disease Monitoring Qualitative Risk Assessment

1 Table of Amendments

Version	Updates	Date
1	N/A	14/09/2006
2	Various updates throughout document, following increase in reported outbreaks in EU Member States, including the UK.	05/02/2010
3	Various updates throughout the document following further expert consultation and legislation and information received.	08/03/2010

Learning lessons and reacting...



- EU review of measures for Romanian horses
 - Revision of measures introduced in 2007 when Romania joined the EU

L 155/48

EN

Official Journal of the European Union

22.6.2010

COMMISSION DECISION

of 18 June 2010

on protective measures with regard to equine infectious anaemia in Romania

(notified under document C(2010) 3767)

(Text with EEA relevance)

(2010/346/EU)



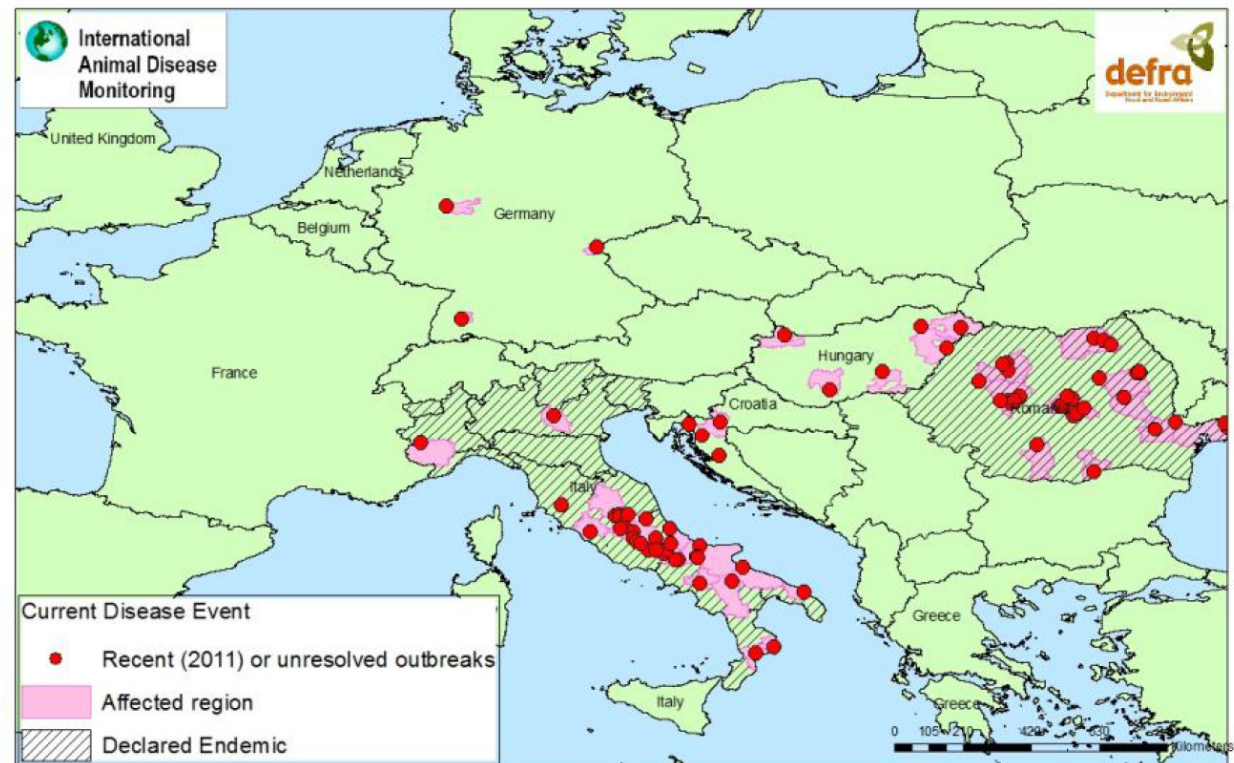
Qualitative assessment of the risk of introduction of Equine Infectious Anaemia (EIA) into Great Britain from an EIA endemic area through temporary movement of UK origin horses

Defra EIA QRA 2011

Qualitative Risk Assessment

Version No: 1.0

Date: 20th June 2011



Equine Infectious Anaemia outbreaks in Europe in 2011



*We consider that under certain conditions there is a **medium** risk for horses associated with travelling for short periods of time (less than ten days, e.g. for competition purposes) during the main vector active season (April to October) to EIA endemic areas where there are clinically infected horses. At other times of the year, and in the presence of animals with subclinical infection, the risk from these areas remains **low**, unless there is contact with clinically infected horses via other means, e.g. contaminated equipment and needles. In terms of onward disease transmission within the UK, this would depend on specific conditions being present and an infected horse not being destroyed before disease transmission could take place. A horse with clinical signs would be more frequently reported and destroyed, while a horse without clinical signs is less infectious, therefore this risk is considered to be **very low**.*



Great Britain has reported three outbreaks of EIA since January 2010, all three cases in horses with Romanian origin or suspected Romanian origin. Two of the cases were detected as a result of enhanced surveillance and post import checks, while the third was as a result of disease investigation. The situation in Europe is considered to have improved in respect to Romania, where special measures have been introduced to improve the export guarantees and certification of horses. However the situation in Italy is such that EIA is now considered endemic, mainly as a consequence of the introduction of infected horses from Romania, movement of horses from infected premises before the 90 day second test and because infected horses were not being culled once tested positive. It has become apparent that the risk assessment needs to be re-addressed on the basis of these new situations.

Equine Infectious Anaemia in Western Europe

Preliminary Outbreak Assessment

Note: Defra's International Disease Monitoring (IDM) monitors outbreaks of high impact diseases around the world. Equine Infectious Anaemia (EIA) is among those diseases of major concern.

1. Disease Report

The Belgian Authorities have reported to the EU Animal Disease Notification System a third outbreak of Equine Infectious Anaemia in Liege region, in proximity to the earlier two outbreaks in Liege in May and July (see map below). In addition, Germany has reported an outbreak of EIA in Alternkirchen region. The infected animal was a 2 month old foal. Other horses at the premises were tested negative, including the mother. The foal had been treated at a clinic in North Rhine Westphalia for unrelated reasons, but the source of EIA infection is not known (OIE, 2012).

Equine Infectious Anaemia in Western Europe

Updated Outbreak Assessment No. 2

Note: Defra's International Disease Monitoring (IDM) monitors outbreaks of high impact diseases around the world. Equine Infectious Anaemia (EIA) is among those diseases of major concern.

1. Disease Report

France has reported an outbreak of EIA in a Camargue horse from the Gard region (OIE, 2012; pers.comm. French Ministry of Agriculture). The horse showed clinical signs and was euthanized on August 30th. The French Authorities are identifying tracings and are looking at possible sources of disease. Nothing has been reported as traced to the UK from France, but more information may be forthcoming in the future. Part of the investigation work is looking at a suspected epidemiological contact with the previous case in the Vaucluse region, reported in February 2012.

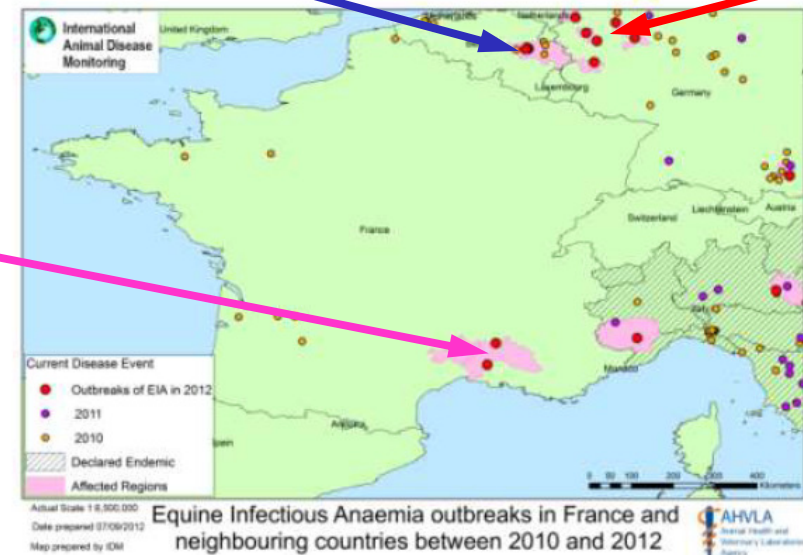
Equine Infectious Anaemia in Western Europe

Updated Outbreak Assessment

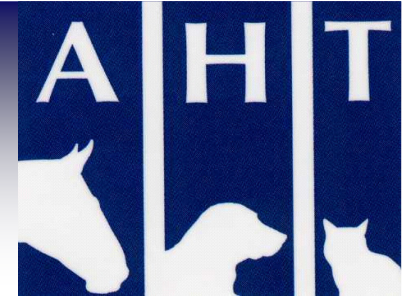
Note: Defra's International Disease Monitoring (IDM) monitors outbreaks of high impact diseases around the world. Equine Infectious Anaemia (EIA) is among those diseases of major concern.

1. Disease Report

At the beginning of August, Germany reported an outbreak of EIA in a foal which had been treated at an equine clinic in North Rhine Westphalia (see our previous report, Defra, 2012). The case has been investigated more thoroughly and the German authorities have reported that the foal received a blood plasma donation at the clinic and the donor horse had subsequently tested positive for EIA antibodies. The horse had been used as a donor to twenty other horses since 2009, of which four have now tested positive for EIA (OIE, 2012). All the positive horses have been euthanized and in-contact horses are currently being tested. Restrictions are in place on all the premises until testing is complete.

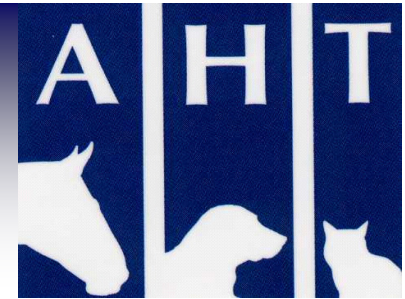


Conclusions



- Risk Assessments and Codes of Practice
 - Are important for equine disease control
 - Can work at different levels
 - Premises < Breed << Industry sector <<< Country
- HBLB Codes of Practice
 - Established, minimum set of industry sector standards
 - Adapt to new disease threats
- Defra use POAs and QRAs, esp. for EIA threats to UK

Acknowledgements



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