High Health Steering Group (HHSG) Update 2: 26/03/2019

Good Habits to Prevent the Spread of Equine Diseases

The following notes are contributions from various members of the High Health Steering Group.

The current outbreak is still continuing throughout the country. With less confirmed outbreaks in March (13 in total to 21 3 19) compared to 34 in the whole of February. The worry is that the publicity around the outbreak will decrease and everyone will then think they are in the clear and relax their guard.

It is so important that everyone understands that unvaccinated horses against Equine Influenza will not only succumb more readily, but critically will spread the virus to vaccinated horses. The BEF advises that unvaccinated and vaccinated horses should not mix.

https://www.aht.org.uk/disease-surveillance/equiflunet

- Equine influenza outbreaks reported in 2019
- Date County Vaccinated?
- 41 04/03/19 Suffolk No
- 42 04/03/19 Staffordshire No
- 44 05/03/19 Sussex YES
- 45 07/03/19 Sussex No
- 46 12/03/19 Berkshire No
- 47 15/03/19 Yorkshire No
- 48 15/03/19 Staffordshire No
- 49 15/03/19 Cumbria No
- 50 14/03/19 Herefordshire No
- 51 18/03/19 Warwickshire No
- 52 18/03/19 Gloucestershire No
- 20/03/19 Kent
- 21/03/19 London
- 34 outbreaks Feb , March to 21 3 19 : 13 outbreaks

Outbreak of EI in Africa Nigeria On 20 February 2019,

- Information on an outbreak of EI in Nigeria that was first reported by World Organisation for Animal Health (OIE) OIE in January 2019.
- There are now more than 3000 equines infected, with reports from the OIE
- Suggesting the outbreak is a symptom of the unregulated global movement and trading of donkeys for their skins.

The prevention of the spread of equine diseases is only as strong as the weakest link in adopted good habits, i.e. in Australia in 2007 one stallion infected with equine influenza [EI] virus, inappropriately managed, precipitated an influenza epidemic, affecting more than 50,000 horses, in a country never having had EI before, causing cessation of movement, racing and other equine activities for 6 months, costing over one Billion Australian dollars.

Infectious Disease

A disease that is caused by a microorganism, such as a bacterium, virus or fungi, that is not normally found in the body and is capable of causing infection.

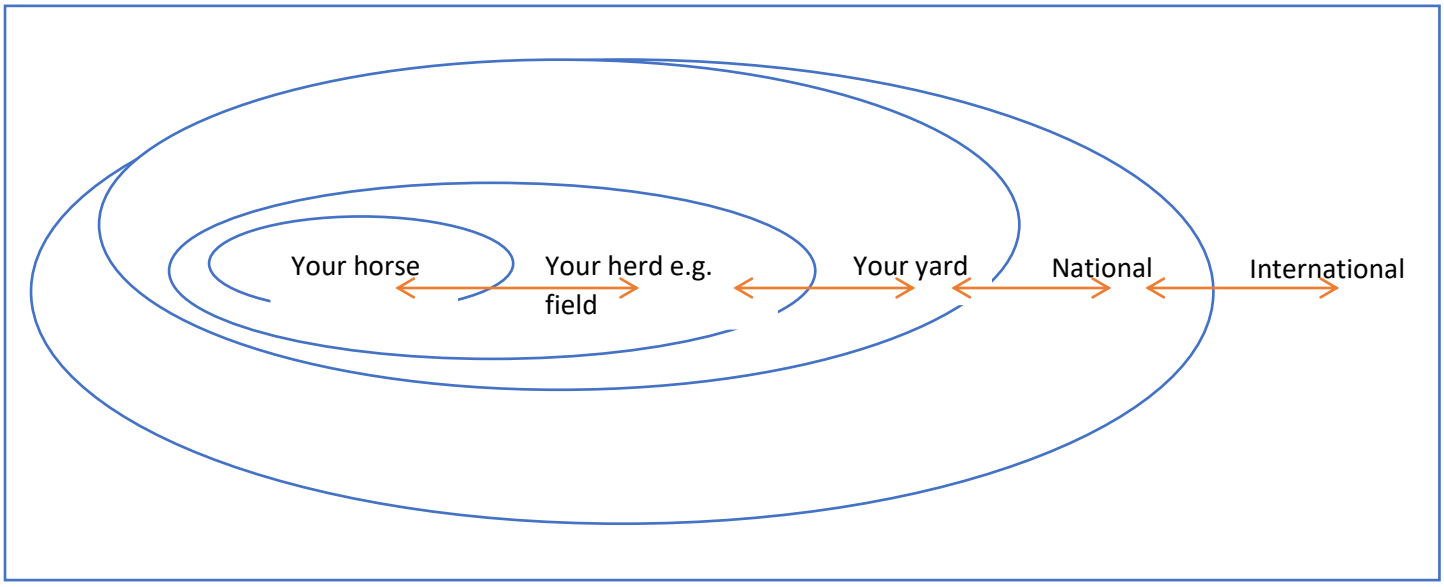
Contagious Disease

Some, but not all, infectious diseases are contagious, meaning they can spread from horse to horse.

A disease that can spread rapidly from horse to horse through direct contact, indirect contact (touching a contaminated object like water buckets), or droplet contact (inhaling droplets made when a horse that has the infection coughs or sneezes).

Biosecurity or GOOD HABITS TO PREVENT THE SPREAD OF EQUINE DISEASES

I.e. The prevention of spread of equine infectious diseases which are contagious. The diagram below shows how quickly and easily a disease can spread.



Some diseases are spread from animal to animal, either directly or via intermediaries. However a Zoonosis which is a disease that can be transmitted from animals to people. Only Diseases which are zoonoses are notifiable to the government i.e. DEFRA/APHA, who will manage disease control.

Diseases regularly found in a population are known as endemic and the animals will over time develop some immunity. Where there is no disease, the horses are known as naive, i.e. as they have no built up immunity.

An individual animal's susceptibility to transmissible disease is dependent upon animals';

- General health status
- Age
- Husbandry
- Immune status from previous exposure/ vaccination

The ability of a pathogen to cause disease [virulence] & load of the disease in the environment.

UK Common Endemic Diseases Easily Spread

Strangles

Strangles is caused by a bacteria called *Streptococcus equi (S. equi)*, and is the most commonly diagnosed infectious disease of horses in the world. It is estimated that more than 600 outbreaks of Strangles occur in the UK each year.

Strangles is highly contagious and is passed from one horse to another via the nose or mouth through direct contact with another horse or contact with infected items. The bacteria enters a horse's lymph nodes which then swell, develop abscesses and rupture, shedding pus and bacteria into the environment. Just one drop of pus from an infected horse contains as many as two million bacteria, making Strangles highly infectious. During outbreaks up to 100% of the horses may be affected and in some cases the disease can be fatal.

Environmental survival of Streptococcus equi bacterium is far longer than has been previously reported: Survival in warm & dry conditions was detected for only up to 2 days, however in wet & cold conditions; S. Equi may remain viable for more than 30 days. There is therefore the possibility that similarly prolonged survival could occur following outbreaks of clinical disease, thus having a knock on effect on control strategies.

EI

Equine Influenza, sometimes referred to as equine flu or horse flu, is a highly contagious respiratory infection.

An infected horse will show clinical signs similar to those of human flu and will be infectious for about a week. Many horses can be affected by one outbreak. Although rarely fatal, it can have a huge impact on competition and breeding due to restriction of horse movements.
The EI virus is shed by aerosol droplet from the nose, can travel through the air up to 20 metres, and be spread by horse and human physical contact too.

The British Equestrian Federation (BEF) continues to strongly recommend to competition and event organisers that they check the Equine ID Passports of all attending horses to make sure that they comply with vaccination rules.

The BEF reminds organisers that it is vital that unvaccinated horses do not mix with other equines due to the increased risk of such an infectious disease spreading. BEF guidelines are based on advice from global experts in EI and epidemiology with experience of managing previous outbreaks.

BEF Advice for Competition and Training Event Organisers During the Current Outbreaks of Equine Flu

In the face of recent equine influenza outbreaks the British Equestrian Federation (BEF) asks all event organisers or coordinators to:

1. Check equine ID passports of all horses attending your event Ensure that the horse (or pony) has received two injections for primary vaccination against equine influenza given no less than 21 days and no more than 92 days apart. Only these two injections need to have been given before a horse/pony can attend.

2. In addition, if sufficient time has elapsed a first booster injection must be given no less than 150 days and no more than 215 days after the second injection of the primary vaccination.

3. Subsequently, booster injections must be given at intervals of not more than one year apart. We strongly advise if attending horses' last vaccination was longer ago than six months, that they discuss an additional booster vaccination with their vet. If you are imposing a six month booster requirement on local veterinary advice, make sure that your event attendees are aware of this at when making entries and have enough time to comply – at least 7 days.

The BEF has also issued the following advice to try to maximise the immunity of young foals against EI.

1. We urge all owners to adhere to strict biosecurity protocols at all times.
2. Vaccinations are subject to local risk assessments by the attending veterinarians.
3. In-foal mares that have already had vaccinations of primary EI course should be vaccinated 4-6 weeks before the foal is due to be born.
4. Foals should be vaccinated for EI at 6 months to commence their primary course.

Since the late 70's there has been a lot of scientific evidence accrued in equine influenza link.

https://www.britishhorseracing.com/the-science-behind-the-industrys-flu-vaccination-policies/

The influenza vaccines available in the UK decrease the duration and severity of clinical signs of disease which is an important equine welfare concern as unvaccinated horses can get very unwell and in rare cases mortality is reported as happened once so far in the current 2019 outbreak.

The influenza vaccines also reduce the amount of virus shed by infected horses. Reducing viral shedding is key to stopping transmission of influenza from one horse to another, in combination with good biosecurity and surveillance. The concept of herd immunity is also worth highlighting: If the national herd vaccination rate was above around 80% influenza would not be able to propagate.

Sadly we know 60% of the horses in UK are not vaccinated and it these horses which allow influenza to propagate as is the case this year and pose a health risk to all horses, vaccinated or not. The more that influenza is transmitted the more challenge it is to the vaccinated herd. Therefore vaccinating previously unvaccinated ponies will protect the welfare of your horses, help control the present equine flu outbreak enabling competitions to continue and not be cancelled and help protect the horses that are already vaccinated by increasing the overall herd immunity.

In summary we believe the policy is strongly evidence based and, along with other measures based around the concept of "Vaccinate-Isolate-Investigate-Communicate-Mitigate" (see AHT media release - https://www.aht.org.uk/news/statement-on-equine-influenza-outbreaks-in-vaccinated-horses), this will give the best chance that the current outbreak will come under control.

Equine Herpesvirus

It is estimated that equine herpesvirus (EHV) affects thousands of horses each year across the world.

The disease is a major welfare concern for horses and foals. It can strike any horse at any time, causing emotional, as well as financial strains, on horse owners and breeders around the world.

Equine herpesvirus can cause a seemingly healthy pregnant mare to suddenly, and without warning, miscarry her unborn foal. It can cause a horse which appears fit and well to suddenly show abnormalities when walking and within hours be unable to stand. It can also cause respiratory disease, similar to a cold, which can easily spread from horse to horse. The virus lies dormant and then re-emerges when an animal is later stressed, such as when transported or mixed with new horses.

Please contact your own veterinary surgeon who will advise re vaccination.

Ring Worm - Girth

Ringworm is highly contagious, and it spreads easily from horse to horse (and from horse to human]. It is an infection of the skin caused by tiny fungus spores that reproduce in the dead outer layers of the skin. It's contagious as long as any spores are alive. This means it can spread on contact to other parts the

body, to other horses & to people. All attendees of the horse, take great care not to come into contact with areas of diseased skin.

Leave well alone and seek veterinary advice. If you inadvertently come into contact, do not go anywhere near another horse, remove & disinfect your outerwear, & go home and wash especially all hairy parts of your body.

UK Impending Exotic Diseases, 'When' Not 'If'

West Nile Virus Disease [WNVD] & African Horse Sickness [AHS] are notifiable diseases. If identified in the UK the Government will impose compulsory movement restrictions and compulsory slaughter

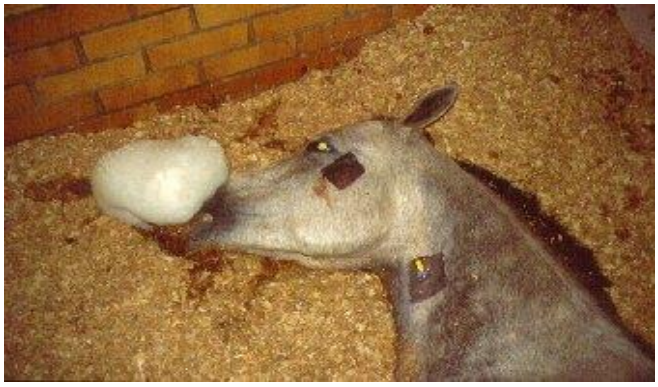
West Nile Virus Disease

- Viral disease causing Death due to encephalitis in horses and humans
- Transmitted by mosquitos & birds
- Death due to encephalitis

Spread: Global warming, meaning in summertime increased movement mosquitos to the UK and more Northly migration of birds. Cases were seen as late as October 2018 in Germany and France.

Prevention: strict biosecurity re exposure to midges and strategic vaccination.

African Horse Sickness Virus



- Transmitted by biting midges
- Sub Saharan Africa /Spain
- Highly fatal
- 890% die within a week of heart failure
- Elevated temperature
- Swollen head & eye membranes
- Pneumonia
- Frothy nasal discharge
- Recumbency & death
- NO vaccination , BIOSECURITY is the only prevention

GOOD HUSBANDORY HABITS are paramount to prevent the spread of equine infectious diseases

How can we all help prevent the spread of equine disease by the adoption of good habits

1) **yourself**
2) **your horse**

Yourself

When visiting a yard and before moving onto the next yard or returning to your own horse:-

Check list

1) Make prior contact by telephone or text with client / carer

- Are all the horses on the yard healthy?
- Has any horse or in contact been away from the yard within the prior 28 days and if so has it/they mixed with strange horses?

2) Before leaving home, check no new disease in the area where you are going:-

https://www.aht.org.uk/disease-surveillance/equiflunet

This is the best link to find out re disease in your area and also to register for update directly to your phone.

3) Your own presentation

- Clean car with no detritus on wheels , footwell etc
- Clean hands
- Personal protective clothing
- Waterproof foot wear capable of being disinfected
- Clean/disinfected equipment
  a) used on previous horse
  b) that will physically come into contact with horse being attended

Keep a plastic bin liner in your vehicle in case you come across a infectious disease, so that you can place soiled items into the bag to be cleansed at home

4) Review on arrival

- Check no signs of illness that day re in contacts
- I.e. eaten up
- Bright
- No nasal or ocular discharge
- No cough
- No diarrhoea
- No skin lesions

5) After examination

Keep a plastic bin liner in your vehicle in case you come across an infectious disease, so that you can place soiled items into the bag to be cleansed at home

- Clean car with no detritus on wheels, footwell etc.
- Clean hands
- Clean/disinfect foot wear
- Clean/disinfected equipment
    - used on previous horse
    - that will physically come into contact with horse being attended

Your horse or pony

Some diseases go relatively unnoticed. It's important to know what's normal for a horse and check regularly for any changes. The first sign of disease may be nothing more than a slight change of behaviour or reduction in performance.

Signs of infectious disease are;

- Dullness & lethargy
- Inappetence
- Nasal or ocular discharge
- Rectal temperature greater than 38.3deg C
- Cough
- Diarrhoea
- Skin lesions
- Movement & mixing of horses

The risks

- Horse from different yards in the same transport vehicle
- Mixing in enclosed airspace
- Competition stables with in American barn system
- Working in in indoor arena with other horses
- Standing in line adjacent to other competitors i.e. showing line ups, collecting rings
- Youngstock particularly at risk i.e. yearlings & 2yos

The message

- Helping protect horse health
- Basic measures necessary to safeguard the horse population.
- Farriers are the most important and regular attendees of the horse
- 80 per cent of horse carers have no affiliation to any informative body.
- Collective responsibility is a powerful tool in enhancing disease prevention

Important advice for everybody planning to attend a Futurity & other equine events:

To keep our youngsters/ all horses healthy we should take care:-

A) Obligatory EI vaccination as a condition of entry

- In-foal mares that have already had vaccinations of primary EI course should be vaccinated 4-6 weeks before the foal is due to be born , in order to provide maternal immunity to the foal at birth
- Foals should be vaccinated for EI at 6 months to commence their primary course. Vaccination prior to 6 months i.e. 4 months, reduces the effectiveness of the EI vaccine in yearlings and 2 year olds when they are most vulnerable

- Horses over 6 months
  - Received two injections for primary vaccination against equine influenza given no less than 21 days and no more than 92 days apart. Only these two injections need to have been given before a horse/pony can attend.
  - In addition, if sufficient time has elapsed a first booster injection must be given no less than 150 days and no more than 215 days after the second injection of the primary vaccination.
  - Subsequently, booster injections must be given at intervals of no greater than 6 moths
  - All EI vaccinations must be given at least 7 days prior to the event

B) Not to take any animal harbouring infectious or contagious disease to a Futurity

C) To avoid picking up such a disease away from home.

Information on Some Common Diseases

The main diseases of relevance to youngsters attending the Futurity, known as endemic– i.e. found regularly in horses and ponies in the UK – are: (Please note the Strangles update in the April 2018 Equine Veterinary Journal):-

Environmental survival of Streptococcus equi bacterium is far longer than has been previously reported: Survival in warm & dry conditions was detected for only up to 2 days, however in wet & cold conditions; S. Equi may remain viable for more than 30 days.

There is therefore the possibility that similarly prolonged survival could occur following outbreaks of clinical disease, thus having a knock on effect on control strategies.

Equine Influenza: for information about this common disease, please go to http://www.aht.org.uk/cms-display/science_eqflu.html

Above all, these diseases are all, always, preceded by an elevated temperature even of a short duration 1 to 4 days before clinical signs appear.

Check your foal's or young horse's temperature, particularly if he or she appears dull, lethargic or displays any metabolic changes or any unusual signs including coughing, nasal discharge, reduced appetite, swellings etc.

PLEASE DO NOT ATTEND YOUR PLANNED FUTURITY IF THIS IS THE SITUATION WITH YOUR YOUNGSTER

Guidelines for minimising risk of spread of infectious disease

Sensible and simple biosecurity steps for horse owners and competitors attending Futurities

Actions to take at home before attending an event;

- It is good practice to routinely take the rectal temperature of all horses twice daily and record these in a diary, along with any other abnormal health signs (e.g. coughing, nasal discharge, reduced appetite, swellings etc)
- It should then be obvious when an animal 'spikes' an abnormally increased rectal temperature (usually ≥38.5°C/101.3°C)
- A horse 'with a temperature' (also referred to as fever or pyrexia) should be promptly isolated away from other animals and a veterinary examination requested.
- It is an important responsibility not to move horses off premises where infectious disease has been recently diagnosed as it is possible that seemingly healthy animals may be incubating the disease. If these horses are taken to events, they could spread infection to other horses
- Even if a specific infection has not been identified, where there is evidence of possible spread through a group of animals, horses from those premises or those that have been recently exposed to other horses with an infection should absolutely not be taken to events

Actions to be taken while attending the event·

- Infections such as EHV-1 spread most easily through close direct contact between horses, indirect contact arising from sharing of feed/water buckets and tack such as bits/bridles or humans going between horses without applying appropriate hand hygiene measures
- Unlike equine influenza, EHV-1 does not spread readily through the air between horses that are physically separated by more than 5-10m
- With these two considerations in mind, the risk of transmission of EHV-1 whilst at an event can be greatly reduced by horse owners and competitors 'keeping themselves and their horses to themselves' and avoiding direct and indirect contact with others

https://www.aht.org.uk/disease-surveillance/equiflunet

This is the best link to find out re disease in your area and also to register for update directly to your phone.