

NTF Code of Practice for Infectious Diseases of Racehorses in Training

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INTRODUCTION

This Code of Practice outlines procedures that should be followed by trainers in conjunction with their veterinary surgeons should an outbreak of infectious disease occur in a training yard.

Biocontainment describes the measures that should be taken to reduce the spread of a disease within or between premises once an infection has been identified. The goal is to prevent further transmission of the infection to other premises and to other horses.

The NTF Guidelines on Biosecurity outline the general steps you need to have in place to reduce the risk of disease - Prevention being much better and cheaper than Cure!!

This Code is not intended to cover all aspects of diagnosis and management of these conditions, as that is the remit of your own veterinary surgeon, but rather to provide an initial reference site with broad guidelines that if followed, will minimise the risk of infectious disease spreading within a yard or to other groups of horses in that training centre, or at the racetrack or further afield.

The overall purpose of the code is to protect the racing industry from infectious disease and it is therefore in everyone's interest to follow these guidelines. It also contains information on the compulsory reporting of some diseases to the BHA (Director of Science and Welfare) and others that are 'Notifiable', where any suspected cases must be reported to the Department for Environment, Food and Rural Affairs (DEFRA) via the local office of Animal Health.

Included in this code is information on International infectious diseases (known as 'Exotic' diseases) that, at present, are not found in the UK, but some are brought in with imported horses on occasions such as Equine Viral Arteritis (EVA) and Equine Infectious Anaemia (EIA or Swamp Fever) and some diseases, such as West Nile Virus and African Horse Sickness are thought by the authorities to be very likely to be seen in the UK at some point in the near future.

Clive Hamblin NTF Veterinary Advisor July 2012

GENERAL PRINCIPLES

If an outbreak of infectious disease occurs or is suspected in a training yard, the trainer and attending veterinary surgeon should investigate the cause of the problem as follows:-

- Take appropriate samples for micro-organism investigation (viral, bacterial and fungal);
- Inform the laboratory so that it is prepared for the arrival of the samples and can advise on the need for further sampling;
- Implement immediate Biosecurity and Biocontainment practices to minimise the risk of infection spreading to unaffected horses;
- For suspected notifiable disease; <u>www.defra.gov.uk/food-farm/animals/diseases</u> contact local Defra Animal Health Office: <u>www.defra.gov.uk/animalhealth/about/contact-us/index</u>
- For disease reportable under BHA Rules: contact the Department of Equine Science and Welfare, ☎ 0207 152 0090; E-mail <u>eswadmin@britishhorseracing.com</u>

BHA Rules:

http://rules.britishhorseracing.com

BIOSECURITY GUIDELINES

The threats from disease are ever present in the racing industry and countering them requires constant vigilance at all levels. Racehorses have a mobile lifestyle that involves much domestic and potentially international travel, mixing with other horses within their own training yard, within training centres and at the racetrack, often involving degrees of stress, making the rapid spread of infectious agents very possible.

The term Biosecurity refers to the management practices and procedures that can markedly reduce the risk of infectious disease outbreaks. Biosecurity measures are designed to reduce the likelihood of introduction of a disease on to an individual training establishment, to a racecourse, to a training centre, a region or indeed a country.

Biosecurity is thus about reducing the risk of disease and its impact on your training business and the health and welfare of your horses.

Biosecurity measures are often not specific to a particular disease or single infectious agent, rather they are a collection of measures that should be useful for the prevention of most infectious agents of concern, with some additional specific biosecurity measures for certain individual infectious agents.

These NTF Guidelines on Biosecurity outline the general steps you should take to reduce the risk of disease entering your premises.

HOW DISEASES ARE SPREAD

Equine infectious diseases are spread in various ways:

- Direct contact
- Aerosol spread via droplets from coughs and sneezes
- Contaminated inanimate objects
- Feed and water
- Vectors:(disease carried by an insect, an animal or a human)
- Soiled bedding, urine and faeces
- Medical equipment (especially if invasive- e.g., hypodermic needles etc)
- Vehicles

As a consequence the key elements of Biosecurity can be grouped as:-

- (i) Management of the horse population (resident, returning from racing as well as new arrivals);
- (ii) Management of personnel (both staff and visitors); and
- (iii) Management of the environment at the premises.

Management of the Horse Population

Key practices of managing the horse population include ascertaining the health status of new arrivals and returning horses. The most common way for an equine infectious disease to be spread in horses in training is when a new horse arrives at a yard carrying an infectious disease.

- Train staff to spot sick horses and report them immediately.
- Ideally new arrivals should be isolated from current residents for 10 days.
- A separate quarantine unit for housing new arrivals is the best way to limit transmission of any infectious disease.
- This unit can also be used to separate a sick horse from the healthy remainder of the yard, or for certain diseases, the sick horse and its immediate in-contacts. The isolation stables need to be separate with no shared air space.
- The isolation unit should be downwind of the main stable unit with respect to the common
 prevailing weather. Insect vectors can be limited by using screens over doors and windows
 and using insecticidal sprays.
- New horses kept in isolation should be checked daily by a competent member of staff, with
 respect to its general health including monitoring its temperature, and its food and water
 intake.

- Separate stable yard equipment, buckets, grooming kit and tack should be used for new horses and ideally should be marked in some way with coloured tape or permanent markers.
- Horses returning from racing should be carefully observed on their return and isolated rapidly if there is any concern for their health.
- Ensure all horses are appropriately vaccinated.

Management of Staff and Visitors

- Staff should be trained in everyday good hygiene practices, especially effective hand washing and disinfecting of items, and their use of these practices should be monitored.
- Assign specific members of staff to care for the exposed/affected/sick horses, and separate staff to look after the healthy horses.
- Disposable gloves, barrier clothing and disposable boot covers should be used when working with sick horses, and after use be disposed of or laundered and disinfected.
- The isolation/quarantine unit should have a changing area for the staff, so that clothing and footwear worn in the restricted area are not worn elsewhere.
- If it is unavoidable that an individual has to care for both groups of affected and unaffected horses, then the care of healthy animals (feeding/ watering/ grooming/ mucking out and exercising) should be carried out first, exposed animals next and affected horses last, followed by decontamination.

Visitors:

- Use only one entrance/exit to the premises and mark it appropriately, all others should be closed off. It should be designed so that access can be restricted and drive over disinfectant mats or baths can be installed when required.
- Parking should be away from the horses to help prevent disease-carrying organisms being spread by shoes or tyres to the stable area.
- If individual vehicles are needed close eg the farrier or veterinary surgeon during a period of high risk, their tyres can be sprayed with disinfectant and they can use a footbath.
- Visitors should ideally wear clothes and shoes that have not been worn on any other equine premises.
- Records of visitors to the premises with date, time, name and purpose of visit should be kept.
- Non-essential access should be limited during any outbreak and a record kept of any horse that the visitor came into contact with.

Management of the Environment

- When a disease is present in a yard, manure and bedding are a source of infectious agents, not just those excreted in the droppings, but they can carry all infectious agents. So soiled bedding on wheelbarrow or tractor tyres can spread disease if not routinely cleaned and disinfected. Soiled bedding material from the stables of affected horses must be placed in enclosed containers for incineration and not onto open air muck heaps.
- Horse specific equipment (feed buckets, water buckets, head collars etc) should be clearly marked as belonging to an individual horse and is to only be used on that horse.
- Any shared equipment (lead ropes, Chiffneys, bits/bridles, twitches, thermometers grooming kits etc) should be cleaned of organic debris and disinfected between horses.
- Equipment that cannot be properly disinfected (sponges, brushes etc) should not be shared between horses, separate labelled ones should be provided.
- All equipment should regularly be thoroughly scrubbed and cleaned with a detergent and water, rinsed, disinfected and rinsed once more.
- Cleaning and disinfection should be carried out in an area with a solid surface and appropriate drain, with minimal walk through and traffic flow that can itself be cleaned and disinfected at the end of the session.
- Cloth items (stable rubbers, towels, bandages etc) should be laundered and thoroughly dried between each use. To kill ringworm spores it will be necessary to add a disinfectant to the rinse (eg Virkon)
- Ointments and other topical medications should be dispensed from larger containers into smaller containers for individual use.
- Rodents, bird and insect control should be evaluated, especially around the isolation unit. Repellent insecticides and insect-proof screens should be available for use when required.
- Dogs and cats can spread disease and the risk from their presence should be evaluated and they should be kept away from the isolation stabling.
- Eliminate the use of any communal water sources. Instruct staff not to submerge the hose when filling buckets.
- When using disinfectants, always follow the instructions on the label. Select a Defra
 approved disinfectant that has documented effectiveness in the presence of 10% organic
 matter, works in the water hardness of the locale and is safe to use in the environment of
 horses and humans.

http://www.archive.defra.gov.uk/foodfarm/farmanimal/diseases/control/disinfectants.htm

• Stables, mangers and yards should be kept clean, free of standing water, regularly and thoroughly scrubbed with an appropriate detergent/disinfectant and allowed to dry.

http://www.archive.defra.gov.uk/foodfarm/farmanimal/diseases/control/disinfectants.htm

• Take care when using a pressure washer, as those set at >120psi (greater than 120psi) can produce aerosols that spread infectious agents in the air.

BIOSECURITY MADE SIMPLE

To safeguard the horse population within your training establishment take the following basic steps;-

Train all staff in disease prevention, identification and hygiene procedures.

The following are a set of vital signs for the normal healthy horse and appropriate examinations for general health:-

- > Temperature 36.5-38.5C;
- Breathing rate 8-15 breaths/min;
- Heart rate 25-45 beats/min;
- > Capillary refill time (in gums) 1-2secs;
- Look for eye or nose discharges;
- > Observe how the horse is standing;
- > Check for consistency and number of droppings;
- > Check consumption from water buckets and feed bowl;
- > Assess horse's general demeanour.
- Keep good records and REPORT any abnormalities from the above. Take rectal temperatures twice daily, it is a very good indicator of disease.
- Isolate new arrivals for a period of 10 days or introduce horses from properties with a known high health status only. Isolate and pay particular attention to horses from sales complexes, from unknown mixed population yards and those that have used commercial horse transport servicing mixed populations.
- Verify the vaccine status of new arrivals.
- Control rodents and keep feed in rodent-proof containers.
- It is helpful to regularly clean and disinfect stables between inmates and also to clean and disinfect equipment and horse transport between horses. Remember to remove as much organic material as possible before disinfection.
- Isolate horses at the first sign of sickness until an infectious or contagious disease has been ruled out.
- Contact your veterinary surgeon if any of your horses show clinical signs of sickness.
- Do not move sick horses except for isolation, veterinary treatment or under veterinary supervision.
- Attend to sick horses last (i.e., feed, water and treat) or use separate staff.
- Provide hand washing facilities and hand disinfection gel for staff handling groups of horses and provide separate protective clothing and footwear for handling and treating sick horses.
- Keep records of horse movements so that contacts can be traced in the event of a disease outbreak.
- Maintain good perimeter security for your premises and maintain controlled access for vehicles and visitors.

BIOCONTAINMENT GUIDELINES

Biosecurity measures to prevent infectious disease from entering a premises are very similar to the Biocontainment practices necessary to stop infectious disease from spreading within those premises and 'escaping' from it.

- Affected horses should be prevented any contact with other horses.
- As part of the movement restrictions, post restricted access signs to all perimeter entrance points to the premises, closing off all but the main entrance where the use of disinfectant mats should be implemented.
- Footbaths and hand sanitizers (62% alcohol gel) should be placed at the main entrance and other access points within the premises, e.g., between barns or other groups of stables.
- All other species of animals such as dogs and yard cats should be excluded from the premises.
- Soiled bedding material from stables of affected horses must be placed in enclosed containers for incineration and not put on open air muck heaps.
- Rodent, bird and insect control should be implemented especially around the isolation unit.
- Repellent insecticides and insect-proof screens should be used if appropriate, around the isolation stables.
- Non-essential access should be limited during any outbreak and a record of all visitors kept including the horses that they have contact with.
- Assign specific members of staff to care for any exposed/affected sick horses and separate staff to look after healthy horses.
- Ensure that staff understand hygiene principles and thereby do not pass diseases to horses at other premises.
- The isolation/quarantine unit should have a changing area for staff so that clothing and footwear worn in the restricted area are not worn elsewhere.
- Barrier clothing, waterproof footwear and disposable gloves should be used when working with sick and in-contact horses and after use they should be disposed of or laundered and disinfected.
- Eliminate the use of communal water sources. Instruct staff not to submerge the hose when filling water buckets.
- When using disinfectants, always follow the instructions on the label. Select a Defra approved disinfectant and chose from the general order disinfectants that have documented effectiveness in the presence of 10% organic matter, works in the water hardness of the locale and is safe to use in the environment of horses and people.

http://www.archive.defra.gov.uk/foodfarm/farmanimal/diseases/control/disinfectants.htm

Horse specific equipment (feed and water buckets, head collars etc) should be clearly
marked as belonging to an individual horse and is to be used only on that horse.

- Any shared equipment (lead ropes, bits/bridles, Chiffneys, twitches, thermometers, grooming kits etc) should be cleaned of organic debris and disinfected between horses.
- Equipment that cannot be properly disinfected (like sponges or brushes) should not be shared between horses, but separate labelled equipment should be provided.
- Cleaning and disinfection should be carried out in an area with a solid floor and a drain, with minimal walk through and traffic flows, which can itself be cleaned and disinfected at the end of the session.
- Cloth items such as stable rubbers, towels, bandages etc should be laundered and thoroughly dried between each use Disinfectant may have to be used as part of the rinse cycle, e.g., Virkon.
- Ointments and other topical medications should be dispensed from larger containers into smaller carefully labelled containers for individual use.
- Stables, mangers and yards should be kept clean, free of standing water and thoroughly scrubbed and cleansed with an appropriate detergent/disinfectant after use and then allowed to dry.
- Take care when using pressure washers as those set at greater than 120psi can produce aerosols that spread infectious agents through the air.

TRANSPORT BIOSECURITY

There is significant potential for transmission of infectious disease during transport.

Cleanliness and hygiene on board all forms of transport is the responsibility of the vehicle owner in private transport and the vehicle operator in contracted transport. The following notes are for quidance in either case.

(i) Vehicles should be cleaned and disinfected frequently and regularly, using approved disinfectants capable of killing bacteria and viruses. A list of these is provided on the Defra website:

http://www.archive.defra.gov.uk/foodfarm/farmanimal/diseases/control/disinfectants

- Vehicles should be cleaned before horses are loaded. (ii)
- Prior vaccination of horses may reduce the risk of disease transmission during transport. (iii) Ideally these should be booster vaccinations but, if horses have not been previously vaccinated, then sufficient time should be allowed before transport for both primary and secondary vaccinations to produce adequate immunity.
- (iv) When mixed loads (eg racehorses, young-stock, breeding stock or non-thoroughbreds) are unavoidable, give careful consideration to the categories of horses that are transported together so as to minimise the disease risk (your veterinary surgeon can advise).
- Horses should only travel if they are considered fit to do so by a veterinary surgeon. (v)
- (vi) Sick animals should not be transported except when they are travelling to obtain veterinary treatment. If transport of such horses is unavoidable they must not be put in mixed loads without the consent of other owners (or those authorised to act on their behalf) of the horses in that load. Veterinary advice should be taken.
- (vii) If horses or their in-contacts are ill on or shortly after arrival at their destination, veterinary advice should be sought and the sick horses isolated if necessary. The transport operator should be informed at once and should then inform other clients with arrivals in the same load.
- Facilities should, if necessary, be made available for cleaning/mucking out of lorries at (viii) premises when loading/unloading stops are made.

INDEX OF INFECTIOUS DISEASES COVERED BY THE NTF CODE OF PRACTICE

- Ringworm
- Equine Influenza
- Equine Herpes Virus
- Strangles
- Equine Infectious Anaemia
- Equine Viral Arteritis
- African Horse Sickness
- West Nile Virus
- Equine Piroplasmosis

RINGWORM (DERMATOPHYTOSIS)

Ringworm is a highly contagious fungal skin infection affecting many species including horses and people (with a potential spread between species, called Zoonosis). In the UK, it is caused by the members of two groups of pathogenic Fungi, Microsporum and Trichophyton species. Young animals are more susceptible (probably because of reduced exposure to the fungus), but any age group may be affected, and adult horses can be reinfected, but these reinfections are usually of less severity and shorter duration.

Clinical signs:

The early signs of a ringworm lesion are a circular, tufted area of hair (1-2cms in diameter); most commonly seen on areas subjected to local trauma, such as from tack, horse clothing and riders boots. These tufted patches of hair stand up against the lie of the coat, and close inspection will reveal a cigarette ash like deposit between the hairs. The hair in the centre will then be killed by the fungus and fall out to reveal scaly, flaking skin beneath. These lesions may occasionally be itchy, and some will progress to show reddening around the scaly patch and these lesions often coalesce, losing their circular appearance, especially with further local trauma, from the girth or neck of a rug for example. Diagnosis can be confirmed by microscopy of a skin scraping to look for spores or by culture on a special medium in the laboratory.

Therapy:

Whilst Ringworm can be a self-limiting disease with spontaneous remission occurring after a period of some weeks, in the Racing environment prompt therapy is vital as it will greatly shorten the course, and reduce the severity of, the disease, as well as reducing environmental contamination and the spread of the problem to other horses in the yard. Consult your veterinary surgeon about topical treatment of the horse with antimycotic agents (anti-fungal agents) and an oral antimycotic agent may be prescribed for use in feed or administered in milk by stomach tube.

The current BHA ruling (<u>Rules of Racing - Manual (C) Part 3</u>) will not allow horses with active Ringworm lesions to enter racecourse premises and samples may be taken by the Veterinary Officer and sent to the laboratory, to confirm the presence of the fungus and the trainer would be fined.

It is essential when sending a horse to race, to have a certificate from your veterinary surgeon confirming the horse's treatment and its successful outcome. This can be downloaded from the BHA website Form VO29 (Ringworm - Certificate of non-contagiousness) – see below - and will need to be completed by your attending veterinary surgeon and kept in the horse's passport for entry on to racecourse premises.

Control measures for Ringworm:

- Prompt implementation of biocontainment measures following identification of the infection and subsequent diagnosis.
- Treatment of the lesions with antimycotic agents.

- An attempt should be made to elicit the origin of any new Ringworm outbreak, bearing in mind that Ringworm fungal spores can survive for many months in the cracks and crevices of buildings, wooden fences or horse boxes as well as tack, grooming kit and on rugs etc
- All tack, rugs and grooming kit should be restricted to individual horses and regularly cleaned and the sterilized with a fungicidal and sporocidal disinfectant such as Virkon or Trigene.
- If this is impractical, clean stable rubbers and plastic girth sleeves may suffice.
- Limiting fungal spores in the environment is more complex, but can be achieved by pressure washing and then using an antifungal disinfectant by washing or by fogging.

Certificate of Non-Contagiousness:

ES&WD VO29 Form	British Horseracing	
RINGWORM - CERTIFICATE OF NON-CONTAGIOUSNESS		
Name of Horse:	Name of Trainer:	
Date of Examination:	Time of Examination:	
Location of Examination:		
Please tick one [or more] of the bo	ixes below:	
Section A I have examined the a contagious to other eq	bove horse. I am satisfied that the dermatitis present is not uines.	
practice lab / a comme	above horse and submitted a scraping/hair sample to my recial lab / AHT for direct microscopy with a negative result boratory report attached.	
Section C I have examined the a	bove horse and prescribed treatment with:	
which has a UK proc	, starting on this date () fuct licence* for the treatment of ringworm, using a <u>full</u> with the manufacturer's instructions.	
 daily for 7 consecutive of Imaverol 100 mg/ml Control 	/ Grisol-V Powder 7.5% wiw Oral Powder -Dose 10mg/kg griseofulvin days: Can race on day 8 after treatment commencing on day1. noentrate - Lesions & surrounding skin washed with the diluted day intervals: Can race on day 11 after treatment commencing on day1.	
I understand that a British Horser sample at the racecourse.	racing Authority Veterinary Officer may wish to take a	
Signature of Veterinary Surgeon:		
Name of Veterinary Surgeon:		
Contact Telephone Number:		
This certificate must accompany Bl	the horse to the racecourse and be presented to the A Veterinary Officer.	
The certificate expires 30 day	ys from the date of issue (date of issue is Day 1)	
rm updated 17th August 2011		
British Horseracing A Tel: 020 7152 0000 Fax: 020 7152 00	uthortly Limited, 75 High Holborn, London, WC1V 6LS 01 Web: britishhorseracing.com Email: Info@britishhorseracing.com	

EQUINE INFLUENZA

Equine influenza is an acute infectious disease of the respiratory tract characterised by a temperature, hacking cough, depression and loss of appetite. It is endemic in the UK but largely controlled in the racing industry by vaccination. Clinical signs are dependent on the vaccination status of the individual horse but the disease is generally mild or subclinical in vaccinated animals, and often secondary complications may be the first presenting sign.

Suspected outbreaks of EQUINE INFLUENZA must be reported to the BHA Department of Equine Science and Welfare (Manual (C)3 – Rule 30. Duty to report communicable diseases).

The most obvious signs of influenza in a vaccinated training yard are a rapidly spreading respiratory infection where affected animals have dirty noses, occasional high temperatures and coughing. It may be difficult to prevent the spread of influenza within a training yard once an outbreak has started, but the effects can be minimized by rest, isolation of affected animals and appropriate supportive therapy.

Race meetings and communal training areas provide ideal opportunities for influenza to spread both within a community and to other geographical areas. The BHA and Trade newspapers will make the industry aware of any outbreaks and the regions affected, so that trainers in unaffected yards can consider revaccination of all their horses to minimize the risks of infection and spread of the disease.

Code of Practice for Investigation of Equine Influenza:

- Vaccination against equine influenza is mandatory in the UK in racing Thoroughbreds
- Mandatory Vaccination has, since it was introduced, been highly effective in reducing the number of days lost to racing due to equine influenza infection.
- Equine influenza does, however, periodically cause extensive problems in groups of vaccinated horses for a number of different reasons. These include particularly virulent virus strains which might more readily overcome vaccine induced immunity; outdated vaccine strains compared to the infecting strain, which might include novel strains within a region (e.g., a new USA virus arriving in Europe)
- Co-operation of trainers and their veterinary surgeons in the prompt diagnosis of equine influenza, control of outbreaks and investigation of the failure of vaccine efficacy greatly assists in preventing larger outbreaks and in time with improving the quality and efficacy of the vaccine and vaccination program.
- The most effective sampling strategy for equine influenza involves 1) clotted blood samples for serology (antibody levels in the blood) and 2) nasopharyngeal swabs for

testing for viral nucleoprotein (using an ELISA test) or a PCR test for parts of the viral RNA.

- Due to the presence of vaccine-induced antibody (the laboratory tests cannot differentiate between antibody produced by vaccination with that produced by infection), it is usually recommended that second clotted blood samples are taken to detect a significant rise in antibody levels as an indicator of infection around the time of taking the first of the paired samples.
- Paired serology is usually more satisfactory as a retrospective indicator of infection than nasopharyngeal swabs, although detection of virus in these samples is useful for instigating immediate control and management measures.
- In order to inform investigation of failure of vaccine efficacy, photocopies of the influenza vaccination of each horse's passport should accompany the samples.

Due to the highly infectious nature of equine influenza, even in vaccinated populations, it is generally not appropriate to consider that influenza infections remain restricted to isolated parts of the premises as might occur with other diseases. However this does mean that influenza infections have a shorter duration than some of these other diseases that can persist for several months if not investigated and managed appropriately.

EQUINE HERPES (EHV-1 OR EHV-4) INFECTION

Equine herpes virus is a common virus that occurs in horse populations worldwide. The two most common strains are EHV-1 and EHV-4. Both strains can cause respiratory disease, particularly in the younger population, but will also cause abortion in brood mares and EHV-1 can also cause un-coordination, paralysis and death. This is known as EHV-1 Paralytic Form.

Suspected outbreaks of EHV-1 paralytic form must be reported to the BHA Department of Equine Science and Welfare

(Manual (C)3 - Rule 30. Duty to report communicable diseases).

Clinical Signs:

The clinical signs of herpes virus respiratory disease include mild fever (raised temperature), coughing, nasal discharge and a potential for legs to fill and these signs may vary from 'hard to detect' to 'severe', with a full range in between. Older horses can succumb to the virus but are more likely to transmit the virus without showing signs of infection.

Horses affected by paralytic EHV-1 often display in-coordination of the hind, and occasionally fore limbs, urine retention and, in severe cases, recumbency (lying down and unable to stand). These signs may be preceded by the initial respiratory signs.

Commercial vaccines are available that can reduce the amount of Viral shedding and spread of the disease and you should consult your veterinary surgeon for advice on their use.

Attempts should be made by early sampling to determine whether the infection is due to EHV-1, EHV-4 or some other infectious agent. If the outbreak is caused by EHV-4, then respiratory disease is likely to be the only outcome. Horses showing clinical signs should however be isolated, with treatment being initiated where appropriate and the affected horses rested.

It is a breach of the Rules of Racing

(Manual (C)3 – Rule 30. Duty to report communicable diseases) for any horse from a yard with a confirmed paralytic/ neurological infected EHV-1 infection to be moved from the premises. You must also inform the BHA (Director of Equine Science and Welfare) when any animal under your care, is suspected, or confirmed with paralytic/neurological EHV-1.

Paralytic Equine Herpesvirus-1 control protocol:

• Implement standard biosecurity and biocontainment procedures.

- In the early stages of many paralytic EHV-1 outbreaks it is necessary for an entire yard to be quarantined and tested in order to establish the likely extent of the infection, that may be entirely sub-clinical (no obvious clinical signs) in some horses. These animals may act as an important source of new infection in susceptible horses.
- The most effective sampling strategy for paralytic EHV-1 involves ;

a) clotted blood samples for serology (antibody levels in the blood),

b) blood sample taken in a heparin sample tube for virus isolation (during viraemia, when the virus is circulating in the bloodstream) and

c) nasopharyngeal swabs for virus isolation (when the virus is being shed from tissues in the nose and throat).

- It is frequently recommended that second clotted blood samples are taken to detect fourfold or greater rises in antibody levels that would indicate infection occurring at about the time of the first sample. This technique is called paired serology.
- Paired serology is a better indicator of infection than the single heparinised blood sample or the nasopharyngeal swabs in retrospect, but detection of virus in these samples are pretty immediate and useful in setting up control measures.
- Initial laboratory testing may quickly establish that the infection is geographically restricted to isolated parts of the premises. In these situations it may be possible, following review of laboratory data and with the approval of the BHA and AHT, to resume normal operations in the non-affected parts of the premises, usually though with heightened disease awareness and biosecurity measures in place.
- Approval to resume normal operations on the entire premises is made by the BHA and AHT in the light of accruing clinical and laboratory information.

STRANGLES

Strangles is a bacterial disease of the lymph glands of the equine upper respiratory tract, caused by the bacterium *Streptococcus equi (S. equi)* and is endemic within the horse population of the UK, but is seen only rarely in Thoroughbreds in training and is therefore thought of as 'low risk'.

There are no DEFRA notification requirements but **under the Rules of Racing**, racehorse trainers are obliged to report likely or confirmed strangles cases to the Director of Equine Science and Welfare at the BHA, when it occurs among horses in training (<u>Manual (C) PART 3 - 30</u>. Duty to report communicable diseases) It is a breach of the Rules for any horse from a yard harbouring an animal infected by STRANGLES to be moved from the premises.

Clinical Signs:

Affected horses typically have a high temperature, cough, poor appetite, nasal discharge and swollen or abscessed lymph glands under the throat. Some infected horses may become very ill and the disease may even become fatal, if the bacterium spreads to other parts of the body ('bastard strangles'), or if the airway becomes occluded by the swollen glands (hence the old fashioned term 'Strangles'!). However in a number of cases, a nasal discharge with no glandular enlargement is all that is seen.

Transmission of the Disease:

- Direct contact between an infected horse and others is the most obvious means of transmitting the infection, but the hands, clothing and equipment of staff or other personnel can spread it indirectly. The bacteria are shed from draining abscesses and nasal discharges, and it may survive in the environment, particularly in water troughs and buckets and on clothing and utensils. Good hygiene is therefore essential in controlling disease.
- The incubation period is usually about one week but may be longer. Horses incubating the disease may shed S.equi bacteria before the onset of clinical signs and so may spread the infection to in-contacts before the first case has become apparent.
- A small but important proportion of horses that have recovered from the normal clinical signs of Strangles will have become persistently infected (most commonly in the Guttural pouches of the throat) with S.equi for many months or even years. These symptomless 'carriers' can intermittently shed S equi which is an important source of infection to nonimmune, in-contact horses.

Diagnosis:

 Strangles is often suspected from the clinical signs, but can only be confirmed by Laboratory isolation of S. equi from nasopharyngeal swabs, pus from throat abscesses, guttural pouch washes or from blood samples.

- Because the bacteria causing Strangles may only be shed intermittently, repeated swabbing is recommended to confirm negative results. Culturing the pus from draining throat abscesses is the most reliable method of confirming or excluding S.equi.
- The carrier state is best diagnosed after the clinical signs of Strangles have cleared, by sequential nasopharyngeal swabs or, preferably, 'scoping' of the guttural pouches and submission to the Lab of guttural pouch washes for testing. This is repeated at weekly intervals on three occasions and will demonstrate the presence of S. equi on culture, or the presence of DNA from the bacterium by using a special test (a polymerase chain reaction or PCR test) in 90%+ of carriers. Also 90%+ of carriers continue to maintain specific antibodies in their blood. These antibodies can be detected by a newly available ELISA blood test that is already providing a useful tool in helping to identify carrier horses. Newly exposed horses take 2 weeks to develop sufficient antibodies to give a positive result and may remain seropositive for up to 6 months after recovery.

Control measures for Strangles infections:

- Implement standard Biosecurity and Biocontainment measures, and report the potential outbreak to the Director of Science and Welfare at the BHA.
- Depending on the management practices in place on the yard, it may be necessary in some strangles outbreaks for an entire yard to be quarantined and tested in order to establish the likely extent of the infection, including the presence of any carriers/ shedders.
- Like most infectious or contagious diseases, prevention would be best achieved by all
 horses entering any stable premises being quarantined for a period of 3-4 weeks and
 monitored closely (young horses are particularly susceptible to infection), particularly in the
 period immediately after arrival.
- Any horse that develops a nasal discharge or other signs consistent with Strangles should be isolated and tested for the presence of, or exposure to S.equi. The spread of S.equi during an outbreak may be limited by the early detection of shedders among newly affected horses and their in-contacts by appropriate testing (see above). Initial laboratory testing may quickly establish that the infection is restricted to isolated parts of the premises. In these situations it may be possible, following review of the laboratory data and with consultation and approval of the BHA and AHT (Animal Health Trust), to resume normal operations in the non-affected parts of the premises, usually though with heightened disease awareness and appropriate Biosecurity measures in place.
- All infected horses and their in-contacts should remain in strict isolation under the direction of the attending veterinary surgeon, and with the highest possible standards of hygiene.
- Horses should not enter affected premises unless they can be kept in strict isolation from all possible sources of infection.
- No infected or in-contact animal should be released from isolation or veterinary supervision until they have been tested conclusively negative for active shedding and the carrier state as described above.
- Treatment of horses with clinical Strangles and in-contacts remains controversial, but you
 must be guided by your veterinary surgeon, who will also advise about the availability and
 possible use of a vaccine on the basis of a risk assessment carried out at the affected
 yard.
- Approval to resume normal operations on the entire premises is made by the BHA with advice from the AHT.

EQUINE INFECTIOUS ANAEMIA (EIA)

Equine Infectious Anaemia (EIA), sometimes known as Swamp Fever is caused by a virus and it occurs worldwide, including parts of mainland Europe (it is endemic in Romania and regularly confirmed in Italy) in both Thoroughbreds and non-Thoroughbreds.

In the UK, EIA is <u>notifiable</u> by law under the Infectious Diseases of Horses Order 1987. Under this 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 at DEFRA, (see Contact Information on Page 29 for the details).

Under the Order, DEFRA may declare the premises where the disease is suspected to be as an infected place and impose restrictions on horses at those premises A veterinary enquiry will be carried out under the direction of the Veterinary Lead at the local Animal Health Office (web addresses on Page 29) 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 <u>will be subject to</u> <u>compulsory slaughter and disposal under control of DEFRA.</u>

Clinical signs:

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

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

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

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

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

Transmission:

The EIA virus is transmitted between horses by transfer of infected blood or blood products by the following means: (a) conventionally by insect vectors such as biting flies (including horse, deer and stable flies) and very rarely by mosquitoes; (b) by administering infected blood products including plasma; (c) by contaminated veterinary or dental equipment or blood contaminated equine equipment such as a twitch or currycomb; (d) from mare to foal through the placenta or possibly colostrum and (e) potentially via an infected stallion's semen. Both

clinically (acute or chronic) and sub-clinically affected horses can be a source of infection for other horses.

Diagnosis:

Due to the variety and possible absence of outward clinical signs of EIA, a diagnosis is not possible without Laboratory testing of blood. The blood sample is tested for antibodies against EIA virus proteins, which for this virus (that is related to HIV in humans) indicates the persistence of the virus. The horse is not able to clear the EIA virus from the body and therefore acts as a lifelong carrier with the potential to infect other animals. Diagnosis should be by means of the Coggins test (also known as the Agar Gel Immunodiffusion test, AGID). The Coggins test is currently the only test recognised officially for the purpose of movement of horses internationally.

An ELISA test has recently been developed. As this test can provide results more quickly and economically than the Coggins test, it is widely used for routine screening in populations where EIA is not suspected e.g., pre-sales or pre-sporting events. It may give a false positive on occasions and therefore any positives must always be confirmed by the Coggins test.

Control of EIA Infection:

- Control of EIA is principally achieved by preventing transmission of infection to other horses by controlling insect vectors, avoiding high risk procedures and prompt detection of infected animals. If infection is suspected, or a horse is suspected of having been in contact with an infected horse then:-
- Stop all movement of horses on or off the premises.
- Isolate the horse and any in-contacts and immediately implement standard biosecurity and biocontainment procedures
- Notify the DVM at DEFRA and contact your own veterinary surgeon, and follow their advice including the implementation of control measures for insects and other vectors.
- Group all other horses on the premises away from in-contact horses until freedom from infection is confirmed.
- As infection is passed on by infected blood, all veterinary procedures pose a particular risk. All non essential procedures and contact with staff should be halted and any equipment used should be destroyed or sterilised.
- All stables, equipment and vehicles must be disinfected with an appropriate agent, and good hygiene and biosecurity must be exercised, including the use of different staff and equipment for each group of horses.
- The virus can survive in blood, faeces and tissue, so all such material must be removed and destroyed.
- Horses that have come in contact with an infected horse or a horse that is suspected of being infected must be quarantined for a minimum period of 90 days post exposure and blood testing will be repeated under the direction of the DVM until freedom from disease is confirmed.

The Infectious Diseases of Horses Order states that any horse testing positive for EIA will be subject to <u>compulsory slaughter and disposal.</u>

EQUINE VIRAL ARTERITIS (EVA)

EVA is a virus disease that occurs worldwide in Thoroughbreds and more commonly in non-Thoroughbred Sports horses. The risk to Thoroughbred racehorses is increased when they come into contact with other breeds of horse, especially when travelling abroad. (e.g., to centres where Thoroughbreds and non-Thoroughbreds mix freely).

EVA spreads in two ways: 1) via the respiratory route (i.e., via droplets from coughing and snorting); 2) by the venereal route during covering (or via infected semen with Artificial Insemination, or by contact with aborted foetus or other products of foaling). Horses, once infected, will have virus circulating in their bloodstream for up to 20 days, but about one-third of all sexually mature colts and stallions that become infected will have the virus present in their reproductive tracts and will shed infectious virus in their semen for the rest of their lives and subsequently infect susceptible mares at mating. Although the majority of the outbreaks of EVA will occur in the stud environment, there are obvious crossovers with racing yards, and some of the most serious outbreaks have occurred at racetracks in North America.

EVA is <u>Notifiable</u> by law. Contact your Local AHVLA Office see list in Contact Information on Page 29) and contact the Director of Equine Science & Welfare at the BHA <u>eswadmin@britishhorseracing.com</u>

Clinical Signs:

The variety and severity of clinical signs of EVA vary widely. Infection may be obvious or there may be no signs at all, but even when there are no signs the virus can still be transmitted, especially venereally. The main signs of overt EVA are fever, lethargy, depression, swelling of the lower limbs, conjunctivitis (pink eye), swelling around the eyes, nasal discharge, urticaria (nettle rash) and swelling of the scrotum or mammary gland. Pregnant mares may also abort.

It is not possible to distinguish EVA from other respiratory infections by clinical signs alone and therefore Laboratory diagnosis is essential. Laboratories can identify the presence and level of antibodies to the virus in serum and can screen for the actual virus in a heparinised whole blood sample. Other samples e.g., semen may be required and the trainer's veterinary surgeon should check with the laboratory.

There is no antiviral treatment available for EVA itself, although the attending veterinary surgeon may offer treatments to help alleviate some of the clinical signs.

Should EVA be suspected, animals should be placed in strict isolation, samples submitted as soon as possible to test for EVA and the BHA notified (and local office of AHVLA of Defra if it is a breeding animal i.e. a colt, stallion or recently covered mare)

If samples reveal the presence of EA virus, the following procedures should be followed closely:

Implement standard biosecurity and biocontainment measures;

- Stop all movement on or off the premises. Notify your local office of AHVLA at Defra (see Contact Information) and follow their instructions. Ensure that all local horse establishments are informed and that other trainers keep their horses away;
- Isolate all clinical cases and all in-contact horses;
- · Serologically screen all horses in the yard;
- As a result of this testing maintain the clinical cases in isolation with any seropositive horses and keep healthy seronegative in-contacts of clinical cases in another separate area. Isolate all other healthy seronegative animals from the others. Where possible separate staff and equipment should be used for each of the three different categories.
- Submit samples for virus isolation from clinical cases;
- Repeat serological testing every 14 days, isolating any further clinical cases in the meantime and reassess the grouping on the basis of the laboratory results;
- Continue testing until the outbreak has subsided;
- Contact all owners and trainers of horses that have left the yard during the period of risk and advise that their animals' clinical and serological status should be immediately tested; all such animals should remain in isolation until the results of the tests are available;
- Infected fillies, mares and geldings should be maintained in isolation for at least one month after they become seropositive, further tests may then be required to demonstrate their freedom from infection
- If a colt or stallion becomes infected, every effort should be made to determine whether or not the animal is a semen shedder;
- Clearance of premises where infected animals have been resident should be assessed in the light of existing circumstances by the appropriate veterinary authorities of DEFRA and the BHA;
- Stables and horse transporters should be cleaned and disinfected thoroughly according to the instructions of the veterinary team.

The potential long term risk that EVA imposes on the racing and breeding industries through permanently shedding stallions is such that it is essential to minimise the spread of this infection should it occur. Your veterinary surgeon will advise over the use of EVA vaccine in prospective breeding stallions whilst they are still in training and after they have blood tested seronegative, in preparation for going on to stallion duties in due course.

AFRICAN HORSE SICKNESS (AHS)

African Horse Sickness is caused by a virus that is transmitted by Culicoides midges. There are 9 different strains (serotypes) of AHS and the severity of clinical disease varies between each strain, but it is likely that an outbreak of AHS in the UK involving any serotype could have a major impact on the equine population, with death or severe illness affecting a large population of susceptible horses that become infected. In addition, measures to control the disease would include stringent and widespread animal movement restrictions and hence would have a major impact on the racing industry by preventing horses moving around the country.

AHS is not currently found in the UK, but is endemic in much of Sub-Saharan Africa and has spread into Europe on occasions (recently in Italy and Spain). As AHS is not currently found in the UK, our population has no immunity against this disease and therefore it is likely that severe clinical signs and a high mortality rate would occur.

AHS cannot be directly transmitted from horse to horse because virus transmission occurs via small insect vectors known as Culicoides midges. Therefore AHS could enter the UK via infected horses, importation of infected blood products or entry of infected midges into the UK. It is believed that at present infected midges are not close enough to the UK to be blown in by the wind, although climatic change will allow them to get ever closer. However they could enter the UK along with imported plants and flowers (much as is thought the midges carrying Bluetongue virus entered the UK to infect cattle and sheep in 2007).

Clinical signs:

High temperature (40'C+); respiratory distress; coughing, copious nasal discharge; swelling of the head and particularly around the eyes with conjunctivitis, colic and potential sudden death.

This disease is <u>Notifiable</u>. If you or your vet suspects that any of your horses could be infected with African Horse Sickness you must report it to your local office of AHVLA dept of DEFRA <u>immediately</u>, (see list of AHVLA offices on Page 29.)

DEFRA veterinary surgeons will carry out further investigations. Blood tests will confirm the presence of AHS virus. Movement restrictions would be instigated to help reduce the risk of disease.

Control measures:

- Implement standard biosecurity and biocontainment procedures;
- As the disease cannot be directly spread from one horse to another without an intermediate host, i.e., the Culicoides midges, disease control measures will include keeping horses away from midges which may be carrying the virus.

- This can be achieved by the use of insect repellents; or housing the horses in insect proofed accommodation; and/or eliminating the insect breeding sites,(such as stagnant water, water troughs and rain butts etc).
- Researchers are working on a multivalent, live, attenuated vaccine (containing seven of the nine serotypes with cross immunity to the other two), but it is currently not licensed for use in the UK. In the event of a confirmed outbreak, the use of a vaccine would be carefully considered before being sanctioned by DEFRA. Work is also being carried out to develop a more appropriate vaccine that would allow vaccinated horses to be readily distinguished from those that are naturally infected. These would probably be released as single serotype preparations so that this specific serotype could be targeted for control and eradication.

Further information is available from the DEFRA website: http://animalhealth.defra.gov.uk/

or the DEFRA helpline: 2 08459 335577

WEST NILE VIRUS (WNV)

West Nile Virus is a viral infection of birds, horses and humans, spread by infected mosquitoes that can cause a meningo-encephalitis (an inflammation of the brain and its covering). Recent research has claimed to have found antibodies against the virus present in birds in the UK, suggesting past or present infection with WNV, but as yet it has not been identified in horses or man in the UK.

It is thought that migrating birds bring the virus into the UK. Various species of mosquito (found in some parts of the UK) become infected by biting these wild birds that are carrying the virus. Whilst birds are the main carrier and most remain unaffected, some species succumb to the disease (esp. the Crow family) The horse seems very susceptible to infection but most cases are sub-clinical showing no obvious clinical signs, but 1:3 to 1:5 cases will develop a fever and clinical signs associated with encephalitis; these may include stumbling, weakness of the hind limbs with ataxia, recumbency (inability to stand), impaired vision, muscle twitching, aimless wandering or circling in the stable. Some may be listless and depressed and some show signs of hyper-excitability.

West Nile Virus is one of a group of viral conditions grouped together as Equine Viral Encephalomyelitis and is included with Japanese Equine Encephalomyelitis, Eastern Equine Encephalomyelitis, Western Equine Encephalomyelitis and Venezuelan Equine Encephalomyelitis, all of which require transmission of infection to horses (and people!) following bites by mosquitoes and other biting flies and are characterized clinically by paralysis and other signs of nervous derangement. They are all Notifiable. They cannot be passed from horse to horse directly, only by a vector such as the mosquito.

In the UK suspect cases of equine encephalitis have to be reported under the Infectious Diseases of Horses Order, i.e., it is Notifiable. Contact your local office of AHVLA at DEFRA, see Contact Information on Page 29.

Control measures:

- Standard Biosecurity and Biocontainment procedures should be implemented;
- Blood samples would need to be taken from these suspect clinical cases to confirm the cause of the infection whilst providing support therapy;
- As the virus can only be spread from one equine host to another by a mosquito vector, disease control and disease prevention involve keeping horses away from the disease carrying mosquito (ticks have been incriminated in West Nile Virus infections in the Far East).
- This can be achieved by the use of insect repellents; or housing the horses in insect proofed accommodation; or eliminating mosquito breeding sites (such as stagnant water, rain butts etc) with the possible use of insecticides.
- A vaccine is now available in the UK to protect horses against the emerging disease of WNV. It may be prudent to make use of this vaccine and any trainer would need to be directed by advice from their veterinary surgeon, Defra and BHA veterinary representatives.

EQUINE PIROPLASMOSIS.

This is principally a tick borne disease that is not currently found in the UK. However because it is endemic in many European countries as well as the tropics and sub-tropics, there is a considerable risk of the disease being imported and subsequently spread in this country. Horses travelling abroad to race may well require a negative blood-test for antibody levels against this disease before being permitted to be exported (e.g., to North America).

It is caused by the blood borne parasites Theleria equi and Babesia caballi. The disease is spread by the transfer of contaminated blood, principally by blood-sucking ticks but can also be via contaminated syringes and needles or other blood contaminated equipment. The organisms enter the erythrocytes (red blood cells) and rapidly multiply resulting in rupture of the blood cell (haemolysis) and thereby producing a debilitating anaemia.

Clinical signs:

In the more acute form clinical signs include:

- High temperature
- Severe anaemia
- Jaundice
- Haemoglobinuria (red blood pigment in the urine)

This disease can be fatal with a mortality of up to 60% in some acute outbreaks. Racehorses that are under stress of either transport or the full exertion of training are particularly at risk of severe disease.

Diagnosis can be made by examining blood smears under the microscope but much more accurate laboratory testing is available at the AHVLA at Weybridge, (using ELISA and IFAT procedures on serum).

Drugs are available to promote a clinical cure but it is very difficult to prevent the 'carrier' state from developing. These cases may be carriers for life and the drugs are prone to producing adverse side effects and so prevention here in the UK remains paramount.

CONTACT INFORMATION FOR REPORTING NOTIFIABLE DISEASE SUSPECTS TO ANIMAL HEALTH OFFICES IN ENGLAND, SCOTLAND AND WALES

There are statutory requirements that suspicion of the notifiable diseases of EVA, EIA, African Horse Sickness, West Nile Fever and Equine Piroplasmosis must be reported immediately to the appropriate Divisional Veterinary Manager (DVM) of Defra. DVM's are based at Animal Health Offices as listed below.

When you telephone your local Animal Health Office, tell the switchboard that you are telephoning to report a suspect case of notifiable disease and ask to speak to the Duty Vet. The Duty Vet is trained to handle reports of notifiable disease and will discuss the case with you.

Many reports can be ruled out based on information gathered during this initial telephone conversation.

However if a notifiable disease cannot be ruled out, the Duty Vet will arrange for a Veterinary Officer to visit the premises, usually within two hours. If considered to be appropriate, restrictions preventing movements on and off the premises may be served verbally over the phone at this time.

When the Veterinary officer visits, they will examine the affected animal, together with the other animals on the premises. Disease is often ruled out at this point and restrictions are lifted immediately. If disease cannot be ruled out by this examination and inquiry, then samples may be taken and sent to a laboratory for testing. In this case, restrictions will remain in place until negative laboratory results are obtained - this is often less than 24 hours. If negative results are obtained then restrictions are lifted immediately.

You can find your local AHVLA office by going to the following website:-<u>www.animalhealth.defra.gov.uk/about/contact-us/index.htm</u> and follow the link to Find your Local Office by Post Code or use the Interactive Map.

AHVLA Offices in England:

South West Region Exeter, South West Animal Health Regional Office 2 01392 266373 Regional Office covers: City of Plymouth / Devon / Torbay www.animalhealth.defra.gov.uk/about/contact-us/southwest.html Truro Animal Health Office 2 01872 265500 Office covers: Cornwall / Isles of Scilly Taunton Animal Health Office 2 01823 337922 Office covers: Somerset / Dorset / Bournemouth and Poole Gloucester Animal Health Office 2 01452 627400 Office covers: Bath and North East Somerset / City of Bristol /Gloucestershire / North Somerset South Gloucestershire / Swindon / Wiltshire

South East Region Reigate, South East Animal Health Regional Office 201737 242242 www.animalhealth.defra.gov.uk/about/contact-us/southeast.html Reading Animal Health Office 201189 596695 Regional Office covers: Brighton and Hove / East Sussex / Greater London Authority Kent Medway / Surrey / West Sussex

East of England Region

Bury St Edmunds, East of England Animal Health Regional Office (201284 778150) Regional Office covers: Cambridgeshire / Bedfordshire / Hertfordshire / Norfolk / Suffolk / Essex / North London www.animalhealth.defra.gov.uk/about/contact-us/eastofengland.html

East Midlands Region

Leicester, East Midlands Animal Health Regional Office 2 01162 787451 Lincoln Animal Health Office 2 01522 529951

Regional office covers: City of Derby / City of Leicester / City of Nottingham / Derbyshire Leicestershire / Lincolnshire / Northamptonshire / Nottinghamshire / Rutland www.animalhealth.defra.gov.uk/about/contact-us/eastmidlands.html

West Midlands Region

Stafford, West Midlands Animal Health Regional Office 101785 231900Worcester Animal Health Office101785 231900Shrewsbury Animal Health Office101785 231900Luddington Animal Health Office101785 231900

Regional office covers: Birmingham District / City of Stoke-On-Trent / Herefordshire Coventry District / Dudley District / Sandwell District / Shropshire / Solihull District Staffordshire / Telford and Wrekin / Walsall District / Warwickshire / Wolverhampton District/Worcestershire www.animalhealth.defra.gov.uk/about/contact-us/westmidlands.html

North West Region

Preston. North West Animal Health Regional Office 🖀 01772 861144

Regional office covers: Blackburn with Darwen / Blackpool / Bolton District / Bury District Cheshire / Cumbria / Hatton / Knowsley District / Lancashire / Liverpool District Manchester District / Oldham District / Rochdale District / Rochdale District / Salford District / Sefton District St Helens District / Stockport District / Tameside District Trafford District / Warrington / Wigan District / Wirral District

www.animalhealth.defra.gov.uk/about/contact-us/northwest.html

North East Region

Newcastle Upon Tyne, North East Animal Health Regional Office 2 0191 229 5400 Regional office covers: Darlington / Durham /Gateshead District / Hartlepool Middlesborough Newcastle Upon Tyne District / North Tyneside District Northumberland /Redcar and Cleveland South Tyneside District / Stockton-On-Tees Sunderland District www.animalhealth.defra.gov.uk/about/contact-us/northeast.html

Yorkshire and Humber Region

Leeds, Yorkshire and Humber Animal Health Regional Office 2 01132 300100 Regional office covers: Barnsley District / Bradford District / Calderdale District / City of Kingston Upon Hull / Doncaster District / East Riding of Yorkshire / Kirklees District Leeds District / North East Lincolnshire / North Lincolnshire / North Yorkshire Rotherham District / Sheffield District Wakefield District / York

www.animalhealth.defra.gov.uk/about/contact-us/yorkandhumber.html

AHVLA Offices in Wales:

South Wales Region

Camarthen, South Wales Animal Health Regional Office 🖀 01267 245400

Regional office covers: Abertawe – Swansea / Blaenau Gwent – Blaenau Gwent / Bro Morgannwg – The Vale of Glamorgan / Coerdydd – Cardiff / Caerffili – Caerphilly Casnewydd – Newport / Castell-Nedd Port Talbot – Neath Port Talbot / Merthyr Tudful – Merthyr Tydfil / Pen-Y-Bont Ar Ogwr – Bridgend / Powys / Rhondda, Cynon, Taf – Rhondda, Cynon, Taff / Sir Benfro –Pembrokeshire / Sir Ceredigion – Ceredigion / Sir Fynwy – Monmouthshire / Sir Gaerfyrddin – Camarthenshire / Tor-Faen – Torfaen www.animalhealth.defra.gov.uk/about/contact-us/southwales.html

North Wales Region

Caenarfon, North Wales Animal Health Regional Office 201286 674144 Regional office covers: Conwy – Conwy / Gwynedd – Gwynedd / Powys / Sir Ddinbych – Denbighshire / Sir Y Fflint – Flintshire / Sir Ynys Mon – Isle Of Anglesey / Wrecsam – Wrexham www.animalhealth.defra.gov.uk/about/contact-us/northwales.html

AHVLA Offices in Scotland:

Galashiels Animal Health Divisional Office 🕿 01896 758806

Regional office covers: City of Edinburgh / East Dunbartonshire / East Lothian / Falkirk Glasgow City / Midlothian / North Lanarkshire / Scottish Borders / South Lanarkshire West Lothian <u>www.animalhealth.defra.gov.uk/about/contact-us/galashiels.html</u>

Ayr Animal Health Divisional Office 🕿 01292 291350

Regional office covers: Dumfries and Galloway / East Ayrshire / East Renfrewshire Glasgow City / Inverclyde / North Ayrshire / Renfrewshire / South Ayrshire www.animalhealth.defra.gov.uk/about/contact-us/ayr.html

Perth Animal Health Divisional Office 🕿 01738 602211

Regional office covers: Argyll / Argyll and Bute / Clackmannanshire / Dundee City East Dunbartonshire / Fife / Highland /Perth and Kinross / Stirling / West Dunbartonshire www.animalhealth.defra.gov.uk/about/contact-us/perth.html

Inverurie Animal Health Divisional Office 🖀 01467 626610

Regional office covers: Aberdeen City / Aberdeenshire / Moray / Orkney Islands Shetland Islands / www.animalhealth.defra.gov.uk/about/contact-us/inverurie.html

Inverness Animal Health Divisional Office 🕿 01463 728800

Regional office covers: Highland / Na H-Eileanan An Iar www.animalhealth.defra.gov.uk/about/contact-us/inverness.html

Useful web addresses for DEFRA:

www.defra.gov.uk/corporate/contacts/ www.defra.gov.uk/animal-diseases/ www.defra.gov.uk/animal-diseases/notifiable/

OTHER USEFUL ADDRESSES:

National Trainers Federation: 9 High Street, Lambourn, Hungerford, Berks. RG17 8XN 27 01488 71719 www.racehorsetrainers.org

Animal Health Trust: Equine Epidemiology Unit, Lanwades Park, Kentford, Newmarket, Suffolk. CB8 7UU ☎ 01638 751000 www.aht.org.uk/cms-display/ahtequine.html

British Horseracing Authority: Dept of Equine Science and Welfare, 75 High Holborn, London WC1V 6LS 20207 152 0000 www.britishhorseracing.com/ http://rules.britishhorseracing.com//Home

Animal Health & Veterinary Laboratories Agency (AHVLA) Laboratories: VLA Weybrige, Woodham Lane, New Haw, Addlestone, Surrey KT15 3NB 2 01932 341111 www.defra.gov.uk/ahvla



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These Codes of Practice do not imply any liability by the National Trainers Federation (NTF) or its Veterinary Advisor in the implementation of, nor responsibility for enforcement of, these Codes.

A digital copy of this booklet is available at www.racehorsetrainers.org/publications/ntfcodeofpractice