

BIOSECURITY ADVISORY STANDARDS 2018

To safeguard the horse population within your establishment, train all staff in disease prevention, identification and hygiene procedures as follows:

To understand the 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
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- Keep daily records for each horse and REPORT any variations from the above. Take rectal temperatures twice daily if possible, 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 equivalent 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.
 - Regularly clean and disinfect stables between occupants and also to clean and disinfect equipment and horse transport between horses.
 - 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 (feed, water and treat) or use separate staff.
 - Provide hand washing facilities, hand disinfection gel and foot baths 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 choose 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, 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.

ACTIONS TO BE CARRIED OUT BY EVENT ORGANISERS

- All event organisers must comply with the current FEI Veterinary Regulations <https://inside.fei.org/fei/regulations/veterinary>
- Event organisers of non FEI events should comply with the following:
 - Stabling at events should be cleaned and disinfected between groups of horses, including feed mangers and water drinkers. Fresh and un-used bedding should be provided for new occupants. It is not good practice to have stables occupied by multiple horses without removing bedding and undertaking cleaning and disinfection as the stables can harbour infectious agents and encourage indirect spread of disease from horse to horse.
 - Communal water troughs should be avoided as these can act as a common source of infection for multiple horses simultaneously following contamination by an infected horse
 - Open access between stables that allows direct horse to horse contact should be avoided
 - Consider the use of 'health certification' by veterinary surgeons such that horses attending events are 'certified' as coming from premises with either no known recent infectious diseases and/or resident animals without clinical signs that might be due to infectious diseases
 - Provision of facilities and personnel to allow simple pre-event entry health inspections to be conducted, with groups of animals (such as those arising from the same home premises and/or those transported together) showing any clinical signs of disease at the pre-event entry inspection being prevented from entering the event. cursory inspection only of animals after entry into event stabling is not ideal and should wherever possible be avoided and replaced with pre-event entry inspection:
 - Alternative arrangements for isolating clinically affected horses or allowing them to immediately return to their home premises, should already be in place before commencing pre-event entry inspections
 - Isolation areas should be appropriately managed with dedicated and experienced staff that are equipped with personal protective equipment (disposable overalls and gloves and waterproof footwear) and cleaning and disinfection materials and clear protocols for their use.
 - Infections spread most easily through close direct contact between horses, or through 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.
 - The risk of transmission of a disease 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.

ACTIONS TO BE TAKEN AFTER RETURNING HOME AFTER AN EVENT

- It is good practice to routinely isolate, separate or 'quarantine' horses returning to home premises after attending equine events, where they may have acquired an infection and might act as a source of that infection for resident horses.
- Quarantine periods of at least 2 weeks are required for horses returning from equine events in order to allow infections acquired at events to show as clinical disease.
- The shorter the quarantine period, and the poorer the biosecurity standards applied, the greater the risk that an infectious horse may be re-introduced and that the infection will transfer to resident horses.
- The main features of a 'quarantine' of returning competitors should include:
 - Physical separation from resident animals, ideally at distances of greater than 10-20m in order to reduce possibility of airborne spread infections. In many cases existing arrangements can be adapted so that part of premises effectively becomes a quarantine area – e.g. the end of a block of stables with several empty boxes between quarantined and resident horses.
 - Use of separate dedicated staff and equipment for quarantined and resident horses to avoid indirect transmission between the groups. If this is not possible, then quarantined horses should always be dealt with after all resident horses to avoid indirect spread from quarantine to resident animals
 - Routine collection and recording of rectal temperatures and clinical signs as outlined above in order to identify signs of infection as early as possible.
 - Requests made for veterinary examinations of any horses in quarantine showing clinical signs such as fever, nasal discharge, cough, incoordination etc. Ideally laboratory tests should also be undertaken to determine specific infectious causes:
 - Swabs from the nose and throat can be tested for presence of infectious agents using a specialist laboratory method called PCR. Depending when samples are received by specialist laboratories, such as the AHT, results may be available within only a few hours of sample receipt by the laboratory.
 - Blood samples taken by veterinary surgeons during early stages of quarantine or ideally prior to attending the event (first sample), and again near the end of two-three weeks quarantine (second sample) are especially useful for demonstrating significantly rising antibody levels against specific infections. This rise in antibody level indicates an immune response by the horse to an infection acquired around the time of the first sample.
 - Event organisers should be notified if an infectious disease is diagnosed in horses returning from an event as this will help heighten awareness and in some

circumstances may help prevent further onward transmission from other infected premises.

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 guidance 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>

- (ii) Vehicles should be cleaned before horses are loaded.
- (iii) Prior vaccination of horses may reduce the risk of disease transmission during transport. 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 sport horses, young-stock or breeding stock) 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).
- (v) Horses should only travel if they are considered fit to do so by a veterinary surgeon.
- (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.
- (viii) Facilities should, if necessary, be made available for cleaning/mucking out of lorries at premises when loading/unloading stops are made.

GENERAL PRINCIPLES – FOR TEAM TRAINING

- If an outbreak of infectious disease occurs or is suspected on a yard, the responsible person 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; www.defra.gov.uk/food-farm/animals/diseases
- Local Defra Animal Health Office: www.defra.gov.uk/animalhealth/about/contact-us/index

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.

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