



Biosecurity Guidelines

ANYTHING that touches an infected or suspect infected horse of any age or carries secretions or excretions including, for example; manure from sick horses, discharge for the nose or abscesses or an aborted fetus or fetal membranes, may have the potential to transfer pathogens to other horses.

I. PERSONNEL

- **Biosecurity instructions for caretakers should be provided in English and Spanish.**

[Click here for caretaker instructions](#)

[Click here for rabies protocols](#)

Note: Animals with neurologic disease should be considered rabies suspects and handled accordingly, until proven otherwise.

- **Assign specific individual(s) to care for sick or affected horse(s).**
Ideally, a caretaker should not be responsible for caring for both healthy and exposed/affected horses.

If it is unavoidable that an individual has to provide care to both affected and unaffected animals, then the following precautions should be observed:

1. Care of healthy animals (feed/groom/exercise/muck stall) should be completed first;
2. exposed animals next;
3. affected/sick animals last

Disposable gloves, plastic booties and barrier clothing should be used when working with sick horses. See [Managing Infectious Disease Outbreaks at Events and Farms; Challenges and the Resources for Success](#). Included within this paper (page 4) are examples of biosecurity supplies and suppliers. Note: These are examples only and are not specifically recommended suppliers or products. *Note: This paper may only be viewed by AAEP members as it is only available within the members section of the AAEP website.*

After handling sick horses:

Dispose of gloves and booties in a lidded trash receptacle.
Gowns/barrier clothing should be placed into a covered hamper.

Hand hygiene is important in everyday life as well as in the practice of veterinary medicine. Extensive information about hand hygiene is available through the [Centers for Disease Control and Prevention website](#).

In summary, hands must be washed under running water with pump-dispensed liquid (not bar) soap for a minimum of 15 seconds. Alternatively, hands may be cleaned with a 62% ethyl alcohol hand gel or foam disinfectant, and allowed to dry (10-15 seconds). Note: Exposure of hands to open flames must be avoided due to flammability of these products.

See [Evaluation of Hygiene Protocols on the Reduction of Bacterial Load on the Hands of Equine Veterinary Staff Performing Routine Physical Examinations](#) *Note: This paper may only be viewed by AAEP members as it is only available within the members section of the AAEP website.*

Caretakers within the primary perimeter should be provided with a changing area, ensuring that clothing and footwear worn within the restricted area are not worn elsewhere.

II. MANAGEMENT PRACTICES

Post restricted access signs ([English and Spanish](#)) at all primary perimeter access points. [See here for sign samples.](#)

Footbaths and hand sanitizers (62% ethyl alcohol) should be placed at all primary perimeter access points. Special attention should be paid to cleaning footwear upon leaving an isolation barn area.

Footbaths with disinfectant should be used. Note: Many disinfectants do not work when there is organic material present (example: straw or manure). Boots need to be cleanable so minimal tread where manure and bedding get trapped. Many disinfectants also do not work when temperature is close to freezing. Read label indication, instructions for use and safety information prior to using any disinfectant. Rubber or waterproof footwear and appropriate maintained footbath or footmat may be a substitute for disposable booties.

[Footbath Resource Option #1 - see here \(page 16\).](#)

[Footbath Resource Option #2 - see here \(page 16\).](#)

Affected horses should be prevented from having any contact with other horses. Openings in stall walls (windows, gaps between boards) should be covered with solid (not mesh or screen) barrier material.

Eliminate use of communal water sources. Instruct caretakers not to submerge water hose when filling buckets!

Manure and soiled bedding

Note: Waste management procedures are not limited to organisms shed in feces but are applicable to all infectious agents.

Manure on wheelbarrow tires, tractor tires, etc. is a potential source of the infectious agent and can be tracked everywhere else on the event grounds if tires are not properly cleaned and disinfected!

Event management should provide enclosed containers (i.e. lidded dumpsters) for the disposal of manure/soiled bedding from within the primary perimeter.

DO NOT put waste material from the stalls of affected horses onto open air manure piles/pits.

DO NOT spread soiled bedding and manure from affected horses onto pastures.

Equipment/Supplies

Horse-specific equipment (feed tubs, water buckets, halters, pitch fork, wheel barrow [i.e. dedicated stall cleaning tools & supplies] & other equipment, etc.) should be clearly identified as belonging to an individual horse and shall be used only for that horse.

Shared equipment (lead shanks, lip chains, bits/bridles, twitches, dose syringes, thermometers, grooming supplies) should be cleaned of organic debris and disinfected between horses.

All equipment should be thoroughly scrubbed and cleaned with a detergent and water, rinsed, disinfected and followed by a final rinse. This should be done in an area with minimal foot and vehicular traffic flow that can be cleaned and disinfected after this procedure (preferably not in a grazing area, but on a solid surface close to a drain).

Cloth items (saddle cloths, towels, bandages, halter fleeces, rub or wipe rags) should be laundered and thoroughly dried between each use. (Disinfectant may be added to rinse water, but an additional rinse cycle must be included to remove disinfectant residue.)

Equipment that cannot be effectively disinfected (sponges, brushes) should not be shared between horses. Multiple dose medications (oral pastes/ophthalmic ointments, etc.) should be labeled for use by a specific horse and not shared.

Ointments/topical medications should be removed from larger tubs and portioned into smaller containers for use on individual horses.

Facility

Non-porous stall surfaces (varnished wood, metal, painted concrete, asphalt, poured textured floors, stall mats etc.) should be cleaned with a detergent, rinsed and either allowed to dry or squeegeed of excess water.

Disinfectants:

Follow label instructions for use. Note precautionary warnings and requirements for proper use and disposal of the disinfectant.

DO NOT mix disinfectants with other chemicals.

Select a 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 around horses and humans.

Bleach is readily inactivated by organic matter; use only after thorough cleaning. Note: Bleach is the only practical, commercially available disinfectant that kills clostridial spores.

Viruses with envelopes (influenza, herpesviruses 1 & 4, equine arteritis virus, etc.) are readily inactivated by detergents and disinfectants.

Phenolic and peroxigen based products are effective for viruses lacking an envelope (rotavirus).

[Disinfectant Resource Option - see here \(page 16\)](#)

Environmental Factors

Vermin control is critical, especially for disease agents that can be transmitted on fomites. Rodent, bird, and insect control should be evaluated and upgraded as necessary. If adequate control cannot be achieved by traps, repellants and/or insecticides/rodenticides, it may be necessary to install screens to enclose the stalls of affected horses. Non-equines (goats, barn cats, dogs) should not be permitted within the primary perimeter.

Prior to repopulating a facility having housed affected animals

- Rubber boots, coveralls, goggles and gloves are to be worn by cleaning personnel.
- Completely strip stalls of all bedding material.
- Brush down all walls of cobwebs and other residual material.

For stalls with non-porous walls and floors:

1. Wet down all surfaces -- walls, ceilings, ledges (top of walls) -- with detergent and water. Powdered laundry detergent can be used; some veterinary disinfectants also have a detergent incorporated in the mix.
2. Allow 5-10 minutes for the liquid to soften caked-on organic material then scrub surfaces with a stiff-bristled broom to loosen all material.
3. Rinse, beginning at the top of walls and from walls towards the drain. Repeat until surfaces are clean, including corners, ledges and drains. NOTE: Do not use power washers set at >120 psi which can aerosolize pathogens. A garden hose with a regular nozzle can be used.
4. Squeegee excess water off surfaces, or allow them to dry.
5. Apply disinfectant prepared according to label directions on n surfaces, starting at the top of stall walls and working from the far end of the stall to the exit. Allow to dry.
6. Repeat step #5 if suspect or confirmed difficult organisms are found or suspected. Bacteria such as Salmonella sp. and certain viruses such as Rotavirus are generally difficult to inactivate. Herpes and influenza viruses are more susceptible to detergents and disinfectant and one application of detergent and disinfectant should be sufficient.
7. Follow all label instructions for application and safety precautions.

Completely clean and disinfect aisle ways, wash racks and common areas following similar procedures.

For facilities with porous surfaces (wood construction, dirt or clay flooring, etc.):

Note: These are extremely difficult to clean and disinfect. Removal of as much organic matter as possible is critical. Thorough cleaning with quantities of water can turn dirt or sand floors to a slurry and should be avoided.

1. Remove all bedding and organic matter and thoroughly dry scrub all surfaces to remove as much organic matter as possible.
2. Follow up with scrubbing stall walls with a detergent solution.
3. Disinfectants can be sprayed on surfaces, but may have inadequate results.
4. Remove all buckets, hay nets, feed tubs, stall webbings, metal grates, etc. and scrub with detergent solution, rinse, disinfect and then rinse thoroughly with potable water and allow to dry.

Outside primary perimeter

Outriders' horses, pony horses, pick-up horses:

- Update/initiate vaccinations (where applicable)
- Daily veterinary inspection prior to use should include:
 - Rectal temperature
 - Inspection for clinical signs of disease

Contact with multiple horses is to be avoided. Horse identifier should require stable employees to lift lips for tattoo inspection or to scan each animal to determine its unique animal identification number (microchip). Judges should avoid direct contact with horses during equipment inspection. Where bit inspection is mandatory, judges should wash their hands, use hand sanitizers, or use disposable gloves between the handling of each horse.

Personnel required to have multiple horse contacts (jockeys' valets, assistant starters, pony persons) should use hand sanitizers between the handling of each horse.

During an outbreak all shared facilities/equipment (i.e. detention barn stalls/receiving barn stalls/starting gate/equine ambulance) should be cleaned and disinfected after each use.

Horse trailers/vans should be cleaned and disinfected between each use. If possible, trailers should be cleaned and stored in a location away from the horse housing area (i.e. materials washed away from the trailer should be away from horses.)

Soiled bedding should be removed and placed in an area designated for infectious materials. Remember, any tools/equipment used to remove the soiled bedding/manure should be cleaned and disinfected after each use, including tires, handles, etc... Note: **DO NOT** put waste material from the stalls of affected horses onto open air manure piles/pits nor spread soiled bedding and manure from affected horses on pastures.

[Biosecurity Tool Kit for Equine Events](#)