Technical Bulletin

Guideline to Controlling Infectious Folliculitis and Dermatophytosis in Equine

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ABSTRACT

Bacterial, dermatophilosis and superficial ringworm infections are common skin diseases noted in equine dermatology. The ability to recognize and accurately diagnose the skin condition is key to selecting an appropriate and successful treatment regimen. Accelerated Hydrogen Peroxide® (AHP®) is a leading disinfectant technology in the human health market and is becoming increasingly recognized as the cleaner, faster and safer disinfectant technology within the animal health market. Known for its germicidal potency, yet incredible safety profile, this guideline validates the use of AHP within the Equine market.

BACKGROUND

The purpose of this guideline is to provide direction on infection control measures to prevent and impede the spread of these pathogens to protect animals and humans alike.

STAPHYLOCOCCAL FOLLICULITIS

Bacteria of the genus *Staphylococcus* are gram-positive bacterium, that exist as part of the normal cutaneous flora of mammals. However, due to a disruption in the skin's natural defence mechanisms, these bacteria can proliferate and cause infection. *Staphylococci folliculitis* can present in a variety of ways, ranging from very mild focal and relatively harmless lesions to rapidly progressive, extensive and painful disease. An area of particular concern with staphylococci is their tendency to become resistant to antimicrobials. In particular, the emergence of methicillin-resistant staphylococci has caused much concern for both animals health an zoonotic infection.

Some basic infection control and management practices are indicated in routine cases, particularly good hygiene practices, avoidance of contaminating common-use items, preventing the sharing of high-risk items such as blankets, wraps, and brushes, and other measures that would help reduce the risk of direct and indirect transmission of staphylococci. Staphylococci can survive in some environments for weeks, but they are killed by routine disinfection if done properly. Staphylococci are susceptible to most disinfectants, but the efficacy of disinfectants is often hampered by the surface material and organic debris. Some disinfectants are more effective in contaminated environments, have shorter required contact times, and are compatible with most surfaces. Tack and other items that have been in contact with an infected horse should be laundered and hot-air dried, cleaned and disinfected, or discarded, depending on the surface type and value.

DERMATOPHILOSIS

Dermatophilosis, also referred to as rain scald or rain rot, is a relatively common excreting and crusting dermatitis in horses. The disease is usually sporadic, although multiple cases can occur on a farm, most likely because of common risk factors. As with most exudative skin diseases, dermatophilosis starts with a papular stage and progresses to pustules. As the disease progresses, there is typically less purulent discharge and dry crusts may predominate.

Dermatophilosis is a bacterium that can be exchanged readily through direct or indirect means, and basic practices can reduce any risk. Tack, blankets, and other items that have contact with the skin should not be shared between infected and uninfected horses. Items used on infected horses should be cleaned and disinfected after resolution of infection, and/or before use on another horse. Items that cannot be laundered should be cleaned and ideally by sprayed with a routine disinfectant; however, surface compatibility must be considered. Routine cleaning and disinfection of the stall should be adequate. Personnel working with an infected horse should use contact precautions to reduce the risk of transmission to other horses.

DERMATOPHYTOSIS

Dermatophytosis, commonly referred to as ringworm, is an important and highly contagious fungal infection. Ringworm can be problematic because of the potential for outbreaks, prolonged disease, cost and bother of treatment, and the potential for human infection.

Dermatophytes can survive for months to years in the environment and on tack under the appropriate conditions. Therefore, potentially contaminated areas and items should be cleaned and disinfected, and this should be done periodically

during the treatment period. A thorough terminal cleaning and disinfection should be performed after resolution of infection. Disinfection of stalls may be difficult if unsealed wood, concrete, or dirt surfaces are present, but removal of as much organic debris as possible, thorough washing and application of a disinfectant with anti-dermatophyte activity should markedly reduce any dermatophyte burden and subsequent risk. Items that have come into contact with infected horses should also be considered infectious. Items such as buckets and brushes should be soaked in disinfectant and thoroughly rinsed. Disinfection of tack can be difficult because many items have porous surfaces. Tack should be thoroughly washed and sprayed with a disinfectant. Contact with infected horses should be minimized and personal protective equipment should be worn whenever horses are handled or when the stall is entered.

CONCLUSION

Infection control plays a key role in preventing infectious folliculitis and dermatophytosis. There is an intrinsic relationship between humans and animals connecting them to one another. Therefore, disinfectants should be part of any infection control program and should be chosen based on their efficacy profile without endangering animals, humans or the environment. AHP was specifically mentioned in this guideline as an effective disinfectant technology alternative to legacy chemistries with known shortcomings. As the animal health industry continues to push for greener and less toxic cleaners and disinfectants, AHP will continue to be recognized as an industry leader that will be supported by its pillars of strength.

IMPLICATIONS FOR AHP

AHP Disinfectants are One-Step Disinfectant-Cleaners

- AHP has proven cleaning efficacy resulting in lower costs and faster results as well as added confidence that disinfection can occur

AHP Disinfectants provide the perfect balance between safety and efficacy

- AHP is designed to be easier on employees and occupants resulting in protocol compliance.
- AHP provides a HMIS rating of "0", meaning that handling the product does not require the use of personal protective equipment which means less cost and downtime

AHP Disinfectants are compatible

- AHP formulations are tested to ensure compatibility that preserve your investments in equipment, furniture, and building surfaces

AHP Disinfectants have realistic contact times

- Short contact times ensure surfaces remain wet for the required contact time, providing comfort and confidence that disinfection has occurred

AHP Disinfectants are environmentally sustainable

- AHP's active ingredient, hydrogen peroxide, breaks down into water and oxygen leaving no active residues
- AHP is formulated to ensure that it will not negatively impact indoor air quality
- AHP products have been inherently proven to be biodegradable indicating that properly maintained septic systems and/or manure pits can handle normal wastes generated from the use of AHP formulations

REFERENCE

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