

MRSA is a resistant strain of *S. aureus*. Not all Staph strains are MRSA.

Horses can be colonized or actually be infected with *S. aureus* or MRSA.

ESS™
Recovery
Shampoo &
Spray is an effective therapy.

Staph Infections: Important Facts for Your Horse & You

Staphylococcal infections (**MRSA**= methicillin resistant *Staph. aureus*) have emerged as a leading cause of hospital-associated and community-associated infections in people. Methicillin resistant staphylococcal infections are of equal concern in the animal population, especially horses. MRSA has now established itself as an endemic pathogen in many horse populations and manifests as sporadic skin infections.

Is my horse's skin infection MRSA?

There are a number of methicillin-resistant strains of staphylococcus bacteria and in many cases the strain causing problems is not *Staphylococcus aureus* (possible other strains are *S. pseudintermedius*, *S. schleiferi*). Not all of these Staphylococcal strains have the same concern for public health as there are differences in virulence. It is important to remember that the designation of "methicillin-resistant" indicates multi-drug resistance and may, therefore, be more difficult to treat. Oftentimes, topical therapy is of paramount importance in these cases.

How does my veterinarian diagnose MRSA?

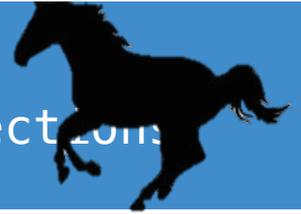
Your veterinarian will submit a culture sample taken from a swab of a pustule, from a region under a crust, or even a biopsy (small piece of skin) to a laboratory for analysis. The growth from the culture will identify the exact bacteria present and supply information helpful in selecting an appropriate antibiotic (oral and/or topical).

What about MRSA infections in horses?

Most cases involve infections of surgical sites, joints, and the skin. A variety of other infections have been reported with less frequency: pneumonia, metritis (uterus), omphalophlebitis (inflammation of the umbilical vein in foals), sinusitis, bloodstream infections, osteomyelitis, tenosynovitis, and mastitis. There does NOT appear to be a difference in severity of infections with methicillin-resistant versus methicillin sensitive strains. What's most important is identifying the bacterial organism because MRSA typically has a narrower list of appropriate therapeutics and carries public health implications.

MRSA can colonize even healthy horses

Healthy horses may carry MRSA organisms on their skin (*colonized rather than infected*). The rate of colonization in the equine population may be as high as 10.9%. MRSA has been shown to cluster on some horse farms and to have prevalence as high as 43%. The nasal passages seem to be the primary site of colonization. The colonized horses may play a critical role in transmission to other horses and stables.



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Close-quartered housing, common in the equine show circuit, may facilitate such transmission.

What is the treatment for Staphylococcal infections?

Topical therapy: Mupirocin ointment or sodium hypochlorite based products such as Equine Skin Solutions Recovery Shampoo and Spray are most consistently effective. Topical therapy can be effective as a SOLE therapy for localized infections or milder, generalized infections. In addition it can be used to help prevent infections from relapsing. Your topical therapy protocol should involve both treatment and prevention from recurrence!

Systemic therapy (oral, injectable antibiotic therapy): antibiotic therapy based on information obtained from culture and sensitivity results. Systemic therapy is typically required for more severe or generalized infections. Importantly, repeated use of systemic antibiotic therapy is a predisposing factor for increased drug resistance so indiscriminate use of antibiotics is not recommended.

What are the public Health concerns for MRSA in my horse?

The strains of MRSA found in horses are typically the same as those found in humans. Zoonotic infections have been reported in people handling both healthy-colonized and infected horses. It is clear that MRSA can be transmitted between people and horses. Equine and swine veterinarians have a higher rate of colonization than the general veterinary personnel population. ***Routine hand hygiene is the single most important infection control practice for personnel in stables!***

Reasonable stable management practices: isolation often impossible!

- Hand hygiene – simple hand washing is a must!
- Minimize grooming contact with new or transient horses
- Minimize horse-to-horse contact with new or transient horses
- Use individual brushes and grooming equipment for horses
- Use individual equipment for horses (saddle pads, boots, blankets, etc.)

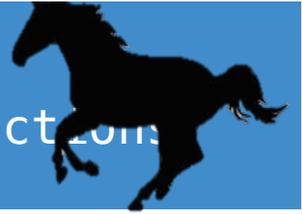
Additional reliable information:

Please visit www.Wormsandgermsblog.com. This site is run by Dr. Scott Weese (University of Guelph, Ontario Veterinary College, Canada) and staff who specialize in veterinary infectious disease.



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