

VETERINARY DERMATOLOGY CENTER

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Methicillin-Resistant Staph Infections in Dogs & Cats: Information for Pet Owners

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The resistant bacteria that we most commonly find on cultures from dogs and cats include: Methicillin-Resistant Staph pseudintermedius (MRSP), Methicillin-Resistant Staph schleiferi (MRSS), and *rarely* human Methicillin-Resistant Staph aureus (human MRSA).

Infection caused by such a bacteria is likely to be unresponsive to most "everyday" antibiotics, and a bacterial culture will be necessary to identify the type of bacteria present and to help determine which antibiotic will help to resolve the infection.

Please read the following very carefully:

1. First of all there's no need to panic! It's VERY, VERY unlikely that skin infections caused by these bacteria will lead to systemic illness or death in dogs and cats. And it's also VERY, VERY unlikely that MRSP and MRSS will affect people...but that doesn't mean that we shouldn't be cautious.
2. Until culture results are known and until the infection is ultimately treated and resolved please isolate your pet as much as possible. In particular there should not be contact with people or pets that have a weakened immune system as a result of medical conditions or treatments. If contact cannot be avoided then people should wear gloves when touching sores. After petting affected dogs and cats hands should be washed (or use antiseptic hand gels if that's not possible). Sustained and close contact with affected pets should be avoided.
3. In most instances MRSP or MRSS (which we see more commonly than MRSA) will not affect healthy people or pets. If a pet has this type of infection then it likely has an underlying condition that has made the skin more prone to secondary infection. Skin allergies and skin parasites are the more common primary problems for pets, but other diseases may also predispose to infection. We must address and control the underlying (primary) problems so the infection is less likely to recur.
4. VERY rarely MRSA is cultured from pets. If it's cultured from your pet, it will be important for your entire family to see your family physician. In most instances pets that have a MRSA infection acquired the bacteria from one or more individuals in the home who may not be showing any symptoms.
5. Where did this come from? In most instances we don't know. There are likely to be multiple factors. Previous antibiotic treatments may play a role in the development of resistant bacteria, especially if the infection is not treated for a sufficient period of time or with an effective dose. Always follow your doctor's instructions and complete the entire course of antibiotics that have been prescribed for an infection. Treatment for the current infection will continue until infection has been resolved for at least 2 weeks (usually 4-8+ weeks).
6. If possible, wear gloves and wash your pet DAILY with a chlorhexidine-based shampoo following the labeled instructions carefully. This is not a job to be delegated (esp. to children). Effective shampooing is critical, and the lather should be allowed to remain on for 5-10 minutes before rinsing well. Protect the eyes and ears. Wash towels afterwards with bleach. Clean the tub afterwards with a disinfecting cleanser. Clipping the fur may be very helpful. Pets should remain clean and dry between shampoos. Nylon collars, leashes, and toy should be washed at least weekly with the pet's chlorhexidine based shampoo as well. Leather collars should be discarded. Bedding should be washed weekly in hot water. Food and water bowls should be washed at least weekly with dish detergent.
7. Application of a very dilute bleach solution (2 TBSP per gallon of water) is often very helpful, and it's usually tolerated very well. Apply it as a final rinse after each shampoo or it can be dabbed or sprayed on daily. Make a fresh solution prior to each application. Be careful not to get the solution on good linens, carpets, upholstery, bedding, clothing, etc.
8. Antibiotics that may need to be considered to resolve the infection:
 - A. Clindamycin or sulfa-type antibiotics (i.e. Primor). When receiving these please make sure that fresh water is always available, and if you notice any eye discomfort or a change in the nature of the tears (i.e. suddenly thick or sticky) then stop the medication and call your veterinarian.
 - B. Chloramphenicol tablets. This is an oral antibiotic that is sometimes used in dogs and cats. It's rarely used in humans because of the potential for severe reactions. In fact humans should wear gloves even when handling the tablets to prevent even a small amount from being absorbed through contact with the skin. Blood tests may be recommended BEFORE treatment and weekly DURING treatment in some cases to monitor for possible problems. Make sure that fresh water is always available.
 - C. Rifampin or Rifidin capsules. This is a rarely used human antibiotic taken by mouth. If it's prescribed for your pet we'll need to perform liver tests BEFORE treatment and at least weekly DURING treatment. Even with close monitoring there could be serious reactions in some cases. If this has been prescribed, and if you see poor appetite, upset stomach, or weight loss you must stop this medication and call. Make sure that fresh water is always available.
 - D. Doxycycline or Minocycline capsules or tablets. If this is prescribed we'll have to make sure it's given with a little food (but not with dairy). In fact it's helpful for a little food to follow the medication so we're certain that it was completely swallowed (and not stuck in the throat where it could cause problems). Fresh water should always be available.
 - E. Amikacin INJECTIONS. If this is prescribed we may show you how to administer injections of this antibiotic on a daily basis. Because this antibiotic may affect kidney function in some patients we'll need to perform kidney function tests and routine urinalysis BEFORE treatment and at least weekly (twice weekly better) DURING treatment. Fresh water should always be available.
9. Communication will be critical. Don't allow prescriptions to run out prior to your next appointment or your next telephone progress report.

And remember....skin infections are ALWAYS secondary to some other problem (most commonly allergies). These infections can recur if there's not good control over the primary problem.

If you have questions, please ask at your next appointment.

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