Safehold
SPECIAL RISK

MRSA concerns in the veterinary setting

Trainer's overview

To help your employees get the most out of their training sessions, it is suggested that:

- The training sessions should be conducted in a relatively quiet uninterrupted environment.
- The sessions should be held the same time and day of the month (e.g., first Tuesday at 12:30 p.m.).
- Employee handouts should be given out along with pencils/pens.
- Review the trainers guide, employee handout, and any references.
- Keep the sessions to a maximum of 20 minutes.
- Give personal examples of incidents or prevention techniques that worked for you.
- Ensure that all employees who are present sign the Safety Training Sign-in Sheet for documentation purposes.
- If some employees were not present, a second training session should be given.

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Trainer's guide

What you need to know

MRSA (*Methicillin-resistant Staphylococcus aureus*) is a type of staph bacteria. This bacterium has acquired a gene, which enables the organism to be resistant to a significant group of antibiotics including *methicillin, penicillin, cephalosporin, and semi-synthetic penicillin's*. MRSA is primarily a human disease issue, but recently there has been increased public interest in MRSA because of its zoonotic potential to humans.

A MRSA infection typically occurs in people who have recently been in a hospital or some other type of health care facility. However, MRSA infections were thought to be exclusively health care related until the 1990s when an increasing number of people with the infection were identified having had no history or working in a medical health care setting. These types of infections have been identified as community associated MRSA or CA-MRSA infections. CA-MRSA occurs in healthy people who have not been in the hospital or have had any type of invasive medical procedures within the last year; these infections usually manifest themselves as soft tissue and skin lesions such as abscesses.

Since *Staphylococcus aureus* bacteria are primarily adapted to living on humans, animals are most likely to contact MRSA by having direct or indirect contact with humans who are infected. Once infected or colonized, animals may then serve as reservoirs for bacterial transmission to other animals or people they may encounter. The significance of human to animal transition may vary with the species of animal, as some strains can apparently be transmitted between horses, but most dog and cat pet infections are thought to be acquired from humans. Other species that could be impacted by MRSA include cattle, sheep, rabbits, and birds.

Treating humans for MRSA skin infections may include having a health care professional drain the infection and in some cases prescribe an antibiotic. Do not attempt to treat a MRSA skin infection on your own. Persons infected with MRSA are subject to re-infection.

Web resources

- cdc.gov/mrsa/index.html
- vspn.org
- veterinarypartner.com
- medpagetoday.com/HospitalBasedMedicine/InfectionControl/25819
- cdc.gov/niosh/.

MRSA identification

- Otherwise healthy people can exhibit skin infections such as abscesses, boils, and other types of pus-filled sores.
- Animals infected with MRSA will also usually have some type of wound or skin infection.
- It is also possible for MRSA in animals to invade the joints, bones, lungs, or bloodstream leading to more severe disease.
- To definitively diagnose MRSA, a sample or swab of an infected skin wound or tissue will be submitted for bacterial analysis.
- MRSA skin lesions can be easily mistaken for a brown recluse spider bite.

MRSA concerns in the veterinary setting

Trainer's guide (continued)

Treatment considerations

Each clinic must evaluate their own situation and employees should know the following:

- Recommended treatment for an infected animal will vary according to where the infection occurs, the lab test results, and overall health of the animal.
- MRSA skin infections in an animal may require surgical removal along with keeping the wound covered and clean.
- If an antibiotic is used as treatment it will be prescribed according to the culture and sensitivity results from the bacteriology lab.
- Although caring for an animal found to be infected with MRSA will not pose a significant health risk, anyone who has recently had a medical procedure could be at elevated risk for infection.
- In some cases it may be necessary to isolate the animal until bacterial analysis or sensitivity test results have been analyzed.
- Screening for MRSA typically involves swabbing the nasal and rectal areas for laboratory analysis.
- If an animal is found to be colonized with MRSA, the infection may spontaneously clear within a few weeks but is subject to re-infection.
- Awareness, identification, good personal hygiene, and personal protective equipment are the most effective barriers to MRSA transmission as there are no currently established antibiotic treatment protocols for treating a MRSA colonized animal that have proven reliably effective.
- Do not attempt to treat an MRSA skin infection by yourself; doing so could worsen or spread it to others. This includes popping, draining, or using disinfectants on the area. If you think you might have an infection, cover the affected skin, wash your hands, and contact your health care provider.

Best practice

A best practice for clinic management is to educate employees to recognize the signs of potential MRSA infection through a combination of engineering and work practice controls.

Engineering controls

Supervisors shall understand, document, and:

- Recognize potential MRSA infections and colonization.
- Equip employees with the necessary personal protective safeguards to minimize transmission.
- Pay close attention to pet bedding and their immediate surrounding area for signs of infection.
- Wear disposable gloves when treating open wounds and changing bandages — no exceptions.
- Immediately clean any surface areas contaminated by wound drainage with a chlorine bleach/water solution.

TIP: In 2011 the FDA cleared the use of a N95 surgical germicidal respirator, the Spectra Shield 9500; that kills methicillin-resistant *Staphylococcus aureus, Streptococcus pyogenes* and *Haemophilus influenzae.* The mask blocks at least 95% of small particles in a standardized test.

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Trainer's guide (continued)

Work practice controls

Work practice controls are meant to reduce the likelihood of exposure through regular refresher training, reminding and/or reinforcing of policies and procedures. Controls include, but are not limited to:

- Strictly forbidding any food or drink consumption in the animal care or examination areas.
- Cleaning an animal's bedding or other surroundings that may be soiled with pus, infected fluids, or other discharges.
- Open communication from employees as well as trainers or shift leads should be in place. This will allow reporting of MRSA symptoms quickly.
- Practice good hand hygiene. All employees should wash hands frequently or use an alcohol based hand sanitizer.
- Wash all blankets or other cloth items that were in contact with the patient in hot water and detergent.
- Drying laundry in a hot dryer also helps to kill MRSA bacteria.
- Record keeping should be a common practice for any veterinary office. Records should include information on training and prevention as well as any injury report with documentation of signs and symptoms.
- Please contact your Wells Fargo Insurance safety representatives if you would like a free CA-MRSA poster or flyer.

Questions for discussion

Question: Is there a proven, effective antibiotic treatment for MRSA in animals?

Answer: No, not currently.

Question: What are some symptoms common to MRSA?

Answer: Abscesses, boils, and other types of pus-filled sores.

Question: MRSA skin lesions are commonly mistaken for?

Answer: Brown recluse spider bite.

Question: Why is personal hygiene important to limiting MRSA transmission?

Answer: It's the simplest, most effective method of controlling colonization.

Question: Is it recommended to treat MRSA by yourself?

Answer: No, doing so could worsen or spread it to others.

Questions?

Please complete the sign-in sheet.

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Attendance record

Date: _____ **Trainer:** _____

Printed name:	Signatures:

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Employee handout

Overview

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Treating humans for MRSA skin infections may include having a health care professional drain the infection and in some cases prescribe an antibiotic.

Do not attempt to treat a MRSA skin infection on your own. Persons infected with MRSA are subject to re-infection.

Steps and ideas to protect your self from infection and transmission to others:

- Be familiar with the signs of MRSA: abscesses, boils, and other types of pus-filled sores.
- Animals infected with MRSA will usually have some type of wound or skin infection. It's also possible for MRSA in animals to invade the joints, bones, lungs, or bloodstream.
- Pay close attention to pet bedding for signs of infection.
- Wear disposable gloves and immediately clean any contaminated surfaces with a chlorine bleach/ water solution.
- Practice good hand hygiene, by washing hands and/or using alcohol based hand sanitizer.
- Under no circumstances should food or beverages be stored or consumed in the animal care, recovery, or examination areas.

Conclusion

Although not common, MRSA is a serious health concern, but its impact can be effectively mitigated by being aware and practicing good personal and professional hygiene.