

Questions and Answers about MRSA for School Health Professionals

Why is MRSA a problem for school healthcare professionals?

There are several reasons why school health professionals are concerned about MRSA.

- MRSA infections are becoming more common in community settings, including schools.
- Staph (including MRSA) are spread by direct contact. In school settings, there are many opportunities for direct contact among students, especially those on athletic teams or in residential facilities.
- An MRSA outbreak can cause much anxiety for parents, students and staff and MRSA infection can vary widely in severity.
- Identifying an MRSA infection can be difficult because the symptoms of MRSA infection are similar to those of other skin infections. MRSA can only be diagnosed by culture and laboratory testing. The laboratory will also perform antibiotic susceptibility testing. Unfortunately, misdiagnosis or delayed diagnosis of MRSA infection can result in delayed treatment and more serious complications.
- MRSA is part of a larger problem of antibiotic resistance. In the long term, *Staphylococcus aureus* may become resistant to many more antibiotics. For this reason it is important that healthcare providers diagnose MRSA early and accurately, prescribe appropriate antibiotics if needed, and direct patients to complete the full course of antibiotics as prescribed. At the same time, healthcare providers should be cautious about the unnecessary use of antibiotics, which can contribute to the problem of antibiotic resistance.

How is MRSA spread?

Staph, including MRSA, are spread by direct skin-to-skin contact, such as shaking hands, wrestling, or other direct contact with the skin of another person. Staph are also spread by contact with items that have been touched by people with staph, like towels shared after bathing and drying off, or shared athletic equipment in the gym or on the field.

Most people who have staph or MRSA on their skin do not have infection or illness caused by staph. These people are "colonized" with staph. Staph infections start when staph get into a cut, scrape or other break in the skin. People who have skin infections should be very careful to avoid spreading their infection to others. Steps to prevent spread are listed below.

What are the symptoms of an infection caused by MRSA?

MRSA is a type of staph, so the symptoms of a MRSA infection and the symptoms of an infection due to other staph are often the same. Pimples, rashes, pus-filled boils, especially when warm, painful, red or swollen, can indicate a staph skin infection. Impetigo is one example of a skin infection that can be caused by staph, including MRSA.



Staph, including MRSA, can also cause more serious infections such as severe skin infection, surgical wound infections, bloodstream infections and pneumonia. The symptoms could include high fever, swelling, heat and pain around a wound, headache, fatigue, and others.

How are MRSA infections treated?

Most MRSA infections are treated by good wound and skin care: keeping the area clean and dry, washing hands after caring for the area, carefully disposing of any bandages, and allowing the body to heal.



Sometimes treatment requires the use of antibiotics. If antibiotics are needed, it is important for the patient to use the medication as directed unless the healthcare provider says to stop. If the infection has not improved within a few days after seeing the healthcare provider, the student should contact the provider again.

Which groups in the school are most at risk for MRSA infection?

Since 2002, school athletic teams in several states have reported MRSA infections among wrestling, volleyball, and most frequently, football teams. Some colleges have reported MRSA infection cases in residential dormitories.

Factors that have been associated with the spread of MRSA skin infections include close skin-to-skin contact, openings in the skin such as cuts or abrasions,

contaminated items and surfaces, crowded living conditions, and poor hygiene. However, MRSA infections sometimes occur among previously healthy persons with no identifiable risk factors.

What should I do if a student in my school is reported to have MRSA?

Consider taking the following steps:

- Confirm the diagnosis. This may require contacting the doctor and family of the student to ensure that accurate medical information is available.
- Follow routine infection control precautions. Use the following infection control precautions with a student who has MRSA infection:
 - Wear gloves when handling the student, or touching blood, body fluids, secretions, excretions, and any items contaminated with these fluids. Gloves should be used before touching mucous membranes and non-intact skin. Gloves should be removed after use, and handwashing performed before touching non-contaminated items and environmental surfaces and before tending to another student.
 - Linens (e.g., from cots) that may contain blood, secretions, or excretions should be handled in a manner to prevent skin, mucous membrane and clothing exposure.
 - Follow routine procedures for cleaning the environment. In general, use routine procedures with a freshly prepared solution of commercially available cleaner such as detergent, disinfectant-detergent or chemical germicide.
 - School attendance. Students and staff with a MRSA infection can attend school regularly as long as the wound is covered and they are receiving proper treatment. Students and staff do not need to be isolated or sent home in the middle of the day if a suspected staph or MRSA infection is noticed. Wash the area with soap and water and cover it lightly. Those who touch the wound should wash their hands immediately. The student should be encouraged to have the wound looked at by their healthcare provider as soon as possible to confirm a MRSA infection and determine the best course of treatment. The wound should be kept lightly covered until it has dried completely.

Do I need to alert parents and staff if a student has a MRSA infection?

Typically, it is not necessary to inform the entire school community about a MRSA infection. When MRSA occurs within the school population, the school nurse and school physician should determine, based on their medical judgment, whether some or all parents and staff should be notified. When necessary, consult with the Health Department. Prior to parent notification, discuss the issue with the school administrator.

Are there special considerations for students with immune suppression or HIV?

Students with weakened immune systems may be at risk for more severe illness if they get infected with MRSA. These students should follow the same prevention measures as all others to prevent staph infections, including practicing good hygiene, covering wounds (e.g., cuts or abrasions) with clean dry bandages, avoiding sharing personal items such as towels and razors, and contacting their doctor if they think they have an infection.

How can staph/MRSA infections be prevented at school?

It is important for school healthcare professionals to coordinate infection control efforts with the athletics department, residential services, and other colleagues at the school to effectively prevent and control infections such as MRSA. For information about MRSA for your school's athletics department.

To prevent MRSA infections at the school, consider these guidelines:

- Regular handwashing is the best way to prevent getting and spreading staph/MRSA. Encourage and practice hand hygiene.
- Practice and encourage good skin care. Since staph infections start when staph enter the body through a break in the skin, keeping skin healthy and intact is an important preventative measure.
- Ensure access to sinks, soaps, and clean towels.
- Ensure the availability of alcohol-based hand sanitizers, if soap and water are not accessible.
- Encourage daily showers with soap and water.
- Discourage sharing of personal items such as towels, razors, and toothbrushes.
- Regularly clean sinks, showers, and toilets by saturating with disinfectant.
- Disinfect athletic equipment between users.
- Launder sheets, towels, sports uniforms, and underclothing with hot water and detergent, and dry on the hottest setting.
- Wear gloves when handling dirty laundry.
- Wear gloves when caring for another person's wounds, and protect clothing from touching wounds or bandages.
- Encourage those infected to always keep draining lesions covered with dressings.
- Dispose of dressings containing pus and blood carefully.
- Disinfect contaminated portable equipment such as stethoscopes, blood-pressure cuffs, equipment handles, tourniquets, pagers, and cell phones.

External Links

For more information about MRSA, visit:

- Centers for Disease Control and Prevention. CA-MRSA Information for Providers
http://www.cdc.gov/ncidod/dhqp/ar_mrsa_ca.html
- Los Angeles County Department of Health Services. "Staph" or Community-Associated Methicillin-Resistant *Staphylococcus aureus* (CA-MRSA) Information
www.lapublichealth.org/acd/MRSA.htm
- Minnesota Department of Health. Methicillin-resistant Staphylococcus aureus (MRSA)
www.health.state.mn.us/divs/idepc/diseases/mrsa/hcp.html
- Public Health Grand Rounds. Antimicrobial Resistance: Old Bugs, New Threats, and the Public Health Response
www.publichealthgrandrounds.unc.edu/antimicrob_resist/handouts.htm
- Texas Department of State Health Services. MRSA
http://www.dshs.state.tx.us/idcu/health/antibiotic_resistance/mrsa/professionals

Source: Mass. Dept for public health http://www.mass.gov/dph/cdc/antibiotic/mrsa_school_health.htm#prevention