

MRSA in Schools

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Methicillin-resistant *Staphylococcus aureus* (MRSA) is a form of *Staphylococcus aureus*, a common bacterium that has developed resistance to several forms of antibiotics. MRSA has been around for many years, mostly in health care settings but has moved into the community in recent years. Infections can be seen anywhere but are mostly seen in settings where people have close contact, such as schools, military barracks, dormitories, correctional facilities, and daycare settings.

What is *Staphylococcus aureus* (staph)? (www.cdc.gov)

Staphylococcus aureus, often referred to simply as "staph," is a bacteria commonly carried on the skin or in the nose of healthy people. Approximately 25% to 30% of the population is colonized (when bacteria are present, but not causing an infection) in the nose with staph bacteria. Sometimes, staph can cause an infection. Staph bacteria are one of the most common causes of skin infections in the United States. Most of these skin infections are minor (such as pimples and boils) and can be effectively treated by drainage of pus with or without antibiotics (also known as antimicrobials or antibacterials). However, staph bacteria also can cause serious infections (such as surgical wound infections, bloodstream infections, and pneumonia).

What is MRSA (methicillin-resistant *Staphylococcus aureus*)? (www.cdc.gov)

Some staph bacteria are resistant to antibiotics. MRSA is a type of staph that is resistant to antibiotics called beta-lactams. Beta-lactam antibiotics include methicillin and other more common antibiotics such as oxacillin, penicillin and amoxicillin. While 25% to 30% of the population is colonized with staph, approximately 1% is colonized with MRSA.

What type of infections does MRSA cause?

(http://www.cdc.gov/ncidod/dhqp/ar_mrsa_in_schools.html)

In the community most MRSA infections are skin infections that may appear as pustules or boils that often are red, swollen, painful, or have pus or other drainage. These skin infections commonly occur at sites of visible skin trauma, such as cuts and abrasions, and areas of the body covered by hair (e.g., back of neck, groin, buttock, armpit, beard area of men).

Almost all MRSA skin infections can be effectively treated by drainage of pus with or without antibiotics (also known as antimicrobials or antibiotics). More serious infections, such as pneumonia, bloodstream infections, or bone infections, are very rare in healthy people who get MRSA skin infections.

Is this a new threat?

No, MRSA infections have been circulating for many years, primarily in health care settings. However, in recent years, health care professionals have seen more and more cases outside of health care settings, which are referred to as “community associated” infections.

According to the Centers for Disease Control and Prevention (CDC), some factors, referred to as the 5 C’s make it easier for MRSA to be transmitted: **C**rowding, frequent skin-to-skin **C**ontact, **C**ompromised skin (i.e. cuts or abrasions), **C**ontaminated items and surfaces, and lack of **C**leanliness. Settings that are at greater risk are military barracks, correctional facilities, schools, dormitories, and daycare centers.

How is MRSA spread?

MRSA is usually transmitted by direct skin-to-skin contact or contact with shared items or surfaces that have come into contact with someone else’s infection (i.e. towels and razors).

Is there anything I can personally do to prevent MRSA?

Good hygiene is one of the best tools in preventing MRSA. For example, wash your hands at every opportunity using soap and water or use an alcohol-based hand sanitizer and shower immediately after participating in sports activities.

Additionally, if you have a skin abrasion or cut, keep it covered with a clean dry bandage until healed. Avoid sharing personal items such as towels or razors that come into contact with bare skin and use a barrier between your skin and shared equipment such as weight-training benches (such as a towel).

If you have a skin abrasion that does not seem to be getting better, is getting worse, is accompanied by a fever, or if you are at all concerned, contact your healthcare provider.

Do I need to use antibacterial soap?

No. There is no need to use special antibacterial soap; regular soap is effective.

Will handwashing prevent only MRSA?

Handwashing is a key tool in preventing many infections, including MRSA, but also influenza, colds, stomach viruses, and other infections and diseases. As cold and flu season begins, it is particularly important to remember to wash hands as often as possible. If you are not able to wash hands at a sink and there is no visible dirt on your hands, alcohol-based cleansers are effective at disinfecting hands.

What can schools do to prevent MRSA infections and other infectious diseases?

Schools can encourage effective handwashing among students and staff by providing adequate materials such as soap and paper towels, as well as time for handwashing.

More tips and materials to encourage handwashing can be found at:

http://www.bam.gov/sub_yourbody/yourbody_buzzonscuzz.html.

In the event of a MRSA infection in a school, cleaning and disinfection should be performed on surfaces that are likely to come into contact with uncovered or poorly covered infections.

Schools should also routinely clean and disinfect commonly used areas or frequently touched surfaces, regardless of the threat of MRSA. Many bacteria and viruses can live on surfaces, including those that are far more common than MRSA, such as those that cause colds and stomach bugs. Commonly touched surfaces should be cleaned and disinfected by trained professionals according to manufacturer instructions found on product labels.

Should school be closed and cleaned or disinfected when a MRSA infection occurs?

(http://www.cdc.gov/ncidod/dhqp/ar_mrsa_in_schools.html)

If infections are covered, the risks of surfaces being contaminated by MRSA are greatly reduced. In general, *it is not necessary* to close schools to “disinfect” them when MRSA infections occur.

When MRSA skin infections do occur, cleaning and disinfection should be performed on surfaces that are likely to come in contact with uncovered or poorly covered infections. Cleaning surfaces with detergent-based cleansers or Environmental Protection Agency (EPA)-registered disinfectants is effective at removing MRSA from the environment. It is critical that cleansers and disinfectants are used safely and appropriately and according to the instructions. The EPA provides a list of EPA-registered products effective against MRSA: <http://epa.gov/oppad001/chemregindex.htm>.

How do we choose the chemicals to clean the school to prevent transmission of MRSA?

Again, the EPA provides a list of registered products effective against MRSA.

In general, schools should regularly evaluate the chemicals that they purchase and how they are used to ensure that they are necessary and appropriate. For more information on chemical management in schools, please see EPA’s Schools Chemical Cleanout Campaign at: www.epa.gov/sc3.

How does responding to a MRSA threat or infection in our school fit into our emergency management plan?

School emergency management plans should consider a wide range of situations, including plans for how to address infectious disease outbreaks. Key elements of all-hazards plans that are particularly important in this situation include establishing delegations of authority, contacting key partners such as the state or local health department, continuity of operations, communicating with staff, students, and parents, and reestablishing the learning environment following the outbreak. Depending on the outbreak and the severity of the illness in the community, mental health services may also be required. Planning for, responding to, and recovering from an infectious disease outbreak in schools can be addressed using the four phases of readiness and emergency management response planning: prevention-mitigation, preparedness, response and recovery.

For more information about readiness and emergency response planning for schools, please see: <http://www.ed.gov/admins/lead/safety/emergencyplan/index.html> and <http://rems.ed.gov/>.

Many schools are closing because of a MRSA infection. Is this necessary?
(http://www.cdc.gov/ncidod/dhqp/ar_mrsa_in_schools.html)

The decision to close a school for any communicable disease should be made by school officials in consultation with local and/or state public health officials. However, in most cases, *it is not necessary* to close schools because of a MRSA infection in a student. MRSA transmission can be prevented by simple measures such as hand hygiene and covering infections.

Should students with MRSA skin infections be excluded from attending school?

Unless directed by a physician, students with MRSA infections should not be excluded from attending school. Exclusion from school should be limited to those who cannot cover their wounds. Students with active infections should cover their wounds with clean, dry bandages and should be excluded from activities where skin-to-skin contact is likely to occur (i.e. sports) until their infections are healed.

Are we required to report MRSA cases to our public health entity?

State laws on reporting MRSA and other diseases vary by state. Consult your public health department for more information.

I am planning a visit to a college. Should I be concerned about a MRSA outbreak on the college campus?

Again, practice good hygiene to avoid contracting MRSA or other infections. Be sure not to share any items that touch anyone else's skin, such as towels or razors and wash hands as frequently as possible.

As an athlete, how can I protect myself in the locker room and on the field?

In addition to practicing good hygiene, be sure to cover any cuts or abrasions on your skin and clean the dressings regularly. If someone on your team has an open cut, wound, or abrasion, be sure that that person covers the affected area by raising your concern with the coaches. If you have additional questions, consult with your school nurse or sports trainer. Additional information on MRSA in sports can be found at http://www.cdc.gov/ncidod/dhqp/ar_mrsa_ca_prevention.html (as of 10/30).

Where can I learn more about MRSA?

Centers for Disease Control and Prevention, Frequently Asked Questions for the Community: http://www.cdc.gov/ncidod/dhqp/ar_mrsa_ca_public.html#10

Centers for Disease Control and Prevention, Questions and Answers about MRSA in Schools: http://www.cdc.gov/ncidod/dhqp/ar_mrsa_in_schools.html (More links available on MRSA in schools from this site)