

MRSA OVERVIEW

For Child Care Centers

Methicillin-Resistant Staphylococcus aureus

Staphylococcus aureus, or “staph,” are 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. These bugs 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 treated without antibiotics. However, staph also can cause serious infections (such as surgical wound infections, bloodstream infections, and pneumonia).

Some staph are resistant to antibiotics. Methicillin Resistant Staph aureus or MRSA is a type of staph that is resistant to a family of antibiotics commonly used to treat staph infections that include methicillin, oxacillin, nafcillin, penicillin and amoxicillin. While 25% to 30% of the population are “colonized” or are carriers of staph; about 1% of the population are colonized with MRSA. People who are colonized with staph or MRSA do not usually have any symptoms.

Staph infections, including MRSA, occur most often among persons in hospitals and healthcare facilities (such as nursing homes and dialysis centers) who have weakened immune systems. These healthcare-associated staph infections include surgical wound infections, urinary tract infections, bloodstream infections, and pneumonia.

MRSA and other staph can also cause illness in persons outside of hospitals and healthcare facilities. MRSA infections that are acquired by persons who **have not** been recently (within the past year) hospitalized or had a medical procedure (such as dialysis, surgery, catheters) are known as Community-Associated or CA-MRSA infections. Staph or MRSA infections in the community are usually manifested as skin infections, such as pimples and boils, and occur in otherwise healthy people. These skin infections often begin with an injury to the skin such as a cut or scrape which allow the bacteria to enter the skin and cause an infection. Symptoms of infection include: Redness, warmth, swelling, tenderness of the skin, and boils or blisters. (Some infections are mistaken as “spider bites.”). Some people may also develop fever and chills.

Staph bacteria are one of the most common causes of skin infection in the United States and are a common cause of pneumonia, surgical wound infections, and bloodstream infections. The majority of MRSA infections occur among patients in hospitals or other healthcare settings; however, it is becoming more common in the community setting. Data from a prospective study in 2003, suggests that 12% of clinical MRSA infections are community-associated, but this varies by geographic region and population.

Some settings have factors that make it easier for staph infections (including MRSA) to be

transmitted. These factors, referred to as the “5C’s” are as follows: **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. According to the Centers for Disease Control and Prevention (CDC) in Atlanta, Georgia locations where the 5C’s are common include schools, dormitories, military barracks, households, correctional facilities, and child care centers.

In the outbreaks of MRSA investigated recently by CDC, the environment has not played a significant role in the transmission of the organism. MRSA is transmitted most frequently by direct skin-to-skin contact.

GUIDELINES FOR CHILD CARE CENTERS

In the absence of an outbreak, individual cases of infections caused by these organisms in child care facilities do not warrant center closures or massive cleaning and disinfection efforts. The decision to close a school for any communicable disease should be made by child care administrators in consultation with local public health agencies and/or the Missouri Department of Health and Senior Services. MRSA skin infections are transmitted primarily by skin-to-skin contact and contact with surfaces that have come into contact with someone else’s infection. When MRSA infections occur, cleaning and disinfection should be performed on surfaces that have come into contact with someone else’s infection.

Cleaning and disinfection

Cleaning surfaces with detergent-based cleaners or Environmental Protection Agency (EPA)-registered disinfectants is effective at removing MRSA from the environment.

- Read instruction labels on all cleaners to make sure they are used safely and appropriately. (In child care centers it is important that cleaners/sanitizers/disinfectants be marked as safe to use on food preparation surfaces since there is so much hand to mouth activity with young children.)

- Cleaning must be performed prior to sanitizing or disinfecting. Sanitizers and disinfectants cannot work in the presence of organic matter (“dirt”).
- Environmental cleaners and disinfectants should not be used on the skin to treat infections. In addition, antiseptics that are meant for use on the skin are not appropriate for environmental cleaning and disinfection.
- The EPA provides a list of disinfectants effective against MRSA.

www.epa.gov/oppad001/chemregindex.htm

Should the entire childcare community be notified of every MRSA infection?

- In most cases it is unnecessary to notify the entire child care community about a single MRSA infection. The physician, or child care health consultant from the local public health agency, could help determine whether some or all children, parents, and staff should be notified. In all cases the confidentiality of the child must be maintained. Consultation with the local public health agency and/or DHSS should guide this decision.

Should children with MRSA skin infections be excluded from attending childcare?

- Unless directed by a physician, children with MRSA infections should not be excluded from attending childcare.
 - o Exclusion from childcare should be reserved for those with wound drainage (“pus”) that cannot be covered and contained with a clean, dry bandage, and for those who cannot maintain good personal hygiene **no matter what organism is causing the infection.**
 - o Students with active infections should be excluded from activities where skin-to-skin contact is likely to occur (e.g., sports) until their infections are healed.
- Children who are simply colonized with MRSA do not need to be excluded from childcare. *Staphylococcus aureus* commonly lives on or “colonizes” the skin of children and adults without causing disease.

Child Care Personnel

- If you observe children with open draining wounds or infections, discuss with parents and

have them seek medical attention.

- Enforce hand hygiene with soap and water before and after using the bathroom. Alcohol-based hand sanitizers can be used in addition but not as a substitute for hand washing.
- Use standard precautions (e.g., hand hygiene before and after contact wearing gloves) when caring for non-intact skin or potential infections. Use barriers such as gowns if soiling of the clothes is likely and face/eye protection if splashing is anticipated.
- Bandages and tape can be discarded in the regular trash.

- Employees with draining wounds or infections should not have physical contact with children.
- Children or employees with covered wounds and who are capable of following good hygienic practices should be permitted to participate in non-contact activities. As soon as wounds are healed they can return to contact activities.
- Dishes, utensils etc. can be washed in the standard manner and clothes can be washed with the usual detergents in hot water and dry using the hottest setting possible.

To prevent MRSA infections at the Child Care Center, consider these general 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. Assist/observe children to ensure good handwashing technique is followed.
- Ensure the availability of alcohol-based hand sanitizers, if soap and water are not accessible. (e.g., field trips etc.)
- Encourage daily showers with soap and water.
- Discourage sharing of personal items such as towels, razors, and toothbrushes.
- Regularly clean sinks, showers, and toilets.
- Disinfect toys and equipment between users especially mats, and other items where there is skin contact.
- Child care administrators may wish to introduce policies which require parents to inform the child care center if their child has any type of skin infection or wound drainage. This policy should contain options for assuring that the other children do not have contact with the infected child or the contaminated physical environment. Obviously this policy will need to be customized depending upon the age of the infected child and the location of the child's wound.