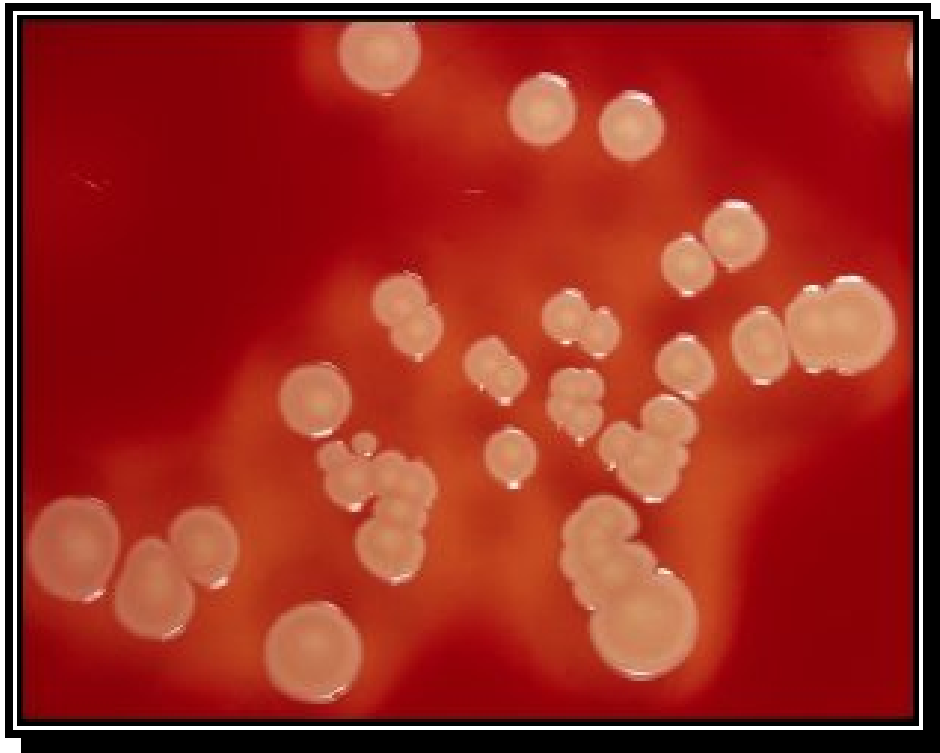


**COMMUNITY ASSOCIATED METHICILLIN RESISTANT
STAPHYLOCOCCUS AUREUS (CA MRSA)**

Guidelines for Clinical Management and Control of Transmission

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COMMUNITY ASSOCIATED METHICILLIN RESISTANT *STAPHYLOCOCCUS AUREUS*

(CA MRSA) Infections

Guidelines for Clinical Management and Control of Transmission

Background

Staphylococcus aureus is a bacterium commonly found on the skin, axillae, perineum, and in the nares of healthy individuals. At least 30% of the population may permanently or intermittently carry *S. aureus*. Since the introduction of antibiotics decades ago, “staph” has quickly become resistant to many significant antibiotics such as the beta-lactams and macrolides.

Healthcare associated MRSA (HA MRSA) infections emerged in the 1960s and have been typically linked to persons with healthcare associated risk factors such as hospitalization or nursing home care, chronic dialysis treatment, antibiotic treatment or exposure to invasive devices or procedures. HA MRSA is a highly resistant and important nosocomial pathogen in both acute care and long term care settings and causes infections associated with increased morbidity, mortality and cost when compared to infections caused by susceptible strains of *S. aureus*.

Beginning in the 1990s community associated MRSA (CA MRSA) infections emerged in persons in which the healthcare associated risk factors were generally absent. Genetic and epidemiologic evidence demonstrates that CA MRSA is caused by strains of *S. aureus* that are different from those associated with HA MRSA.

CA MRSA is currently defined as an infection with MRSA in a person with no prior history of a health care exposure such as hospitalization, surgery, permanent intravenous lines or other indwelling devices, or hemodialysis.¹

Characteristics of CA MRSA

CA MRSA strains are genetically different from HA MRSA strains. The predominant strains of CA MRSA are the genetic fingerprint types US 300 and US 400 strains which contain the staphylococcal chromosomal cassette (SCC) *mec IV*. *Mec IV* is a smaller genetic package that confers resistance than are the SCC*mec I, II, III, and V* which are present in the US 100 and 200 strains that correlate with HA MRSA.² The smaller size of the SCC confers less resistance to the organism than the larger SCC and explains why CA MRSA is susceptible to more classes of antibiotics than HA MRSA. CA MRSA is always resistant to the beta-lactams and often to erythromycin but remains susceptible to several other antimicrobial agents. HA MRSA is resistant to all classes of antibiotics except vancomycin, linezolid, quinoprisitin-dalfopristin, daptomycin, tigecycline, ceftaroline, and televancin.

Almost all CA MRSA strains carry the Panton Valentine Leukocidin (PVL) gene that allows the production of a necrotizing cytotoxin which may be responsible for the invasiveness and virulence of the organism. In contrast, only about five percent of methicillin susceptible strains of *S. aureus* and HA MRSA carry the PVL gene. However, the role of PVL production in conferring virulence characteristics to CA MRSA remains unclear.

The most frequent infections caused by CA MRSA are skin and soft tissue infections (SSTIs) that typically present as boils, abscesses or purulent cellulitis. Early lesions are often described as appearing like spider bites. Less commonly, CA MRSA can cause invasive infections such as bacteremia, surgical site infections and pneumonia.

Table 1 below summarizes the differences between HA MRSA and CA MRSA.

Table 1. Comparison of HA MRSA and CA MRSA³

	HA-MRSA	CA-MRS	A
Health care contact	Yes		No
Mean age at infection	Older		Younger
Skin and soft tissue infections	35%		75%
Antibiotic resistance	Many agents		Some agents
Resistance gene	SCC <i>mec</i> Types I, II,III, V		SCC <i>mec</i> Type IV
Strain type	USA 100 and 200		USA 300 and 400
PVL toxin gene	Rare (5%)		Frequent (almost 100%)

Epidemiology

Risk factors for HA MRSA infections (i.e. history of hospitalization, nursing home residence, dialysis treatment, invasive devices or procedures, antibiotic use) are generally not present in persons with CA MRSA infections. Persons who may be at greater risk of CA MRSA infections include athletes, daycare attendees and those living in close quarters such as dormitories, military barracks and correctional facilities.

Transmission of CA MRSA occurs mainly by person to person spread but may also occur by contact with contaminated surfaces or items. Little is known regarding risk factors for transmission in community settings; however common factors observed during outbreak investigations were crowding, frequent skin to skin contact, compromised skin, contact with contaminated surfaces and shared items, and lack of cleanliness. CA MRSA transmission in hospital settings has also been demonstrated in outbreaks among postpartum women and in patients undergoing orthopedic surgery, prompting the use of contact precautions in acute care settings.

Recent nasal acquisition of CA MRSA has been associated with a 10-fold increase in risk of developing SSTIs. However, nasal carriage may not be a reliable epidemiologic marker for CA MRSA. Of interest, persons previously colonized with *S. aureus* have a lower relative risk of developing more invasive disease. These data suggest that some immunity is provided by colonization.

Treatment

CA MRSA has increasingly become a significant cause of SSTIs in the US. In 2004, CA MRSA comprised approximately 60% of these infections in adult patients seeking care at emergency departments.⁴ Population-based surveillance conducted in various geographic regions of the US in 2005 estimates that 14% of invasive MRSA infections are caused by CA MRSA.⁵ Therefore, it is important for clinicians to consider CA MRSA when treating patients with possible staphylococcal infections.

Although risk factors for CA MRSA are not well defined, patients with characteristics listed in Table 2 should be considered at higher risk of having CA MRSA infections.

Table 2. Risk factors associated with CA MRSA infections⁶

The following risk factors should increase suspicion for CA MRSA in patients with compatible signs and symptoms.

- History of MRSA infection or colonization in patient or close contact
- High prevalence of CA MRSA in local community or patient population
- Recurrent skin disease
- Crowded living conditions (e.g. homeless shelters, military barracks)
- History of incarceration
- Participation in contact sports
- Skin or soft tissue infection with poor response to B-lactam antibiotics
- Recent and/or frequent antibiotic use
- Injection drug use
- Member of Native American, Pacific Island, Alaskan Native populations
- Child under age 2 years
- Male with history of having sex with men
- Shaving of body hair

The Infectious Disease Society of America (IDSA) has developed guidelines for treating MRSA infections in adults and children. They include recommendations for managing infections caused by strains of MRSA with decreased susceptibility to vancomycin and for managing cases of vancomycin treatment failures. The guidelines may be accessed at <http://www.idsociety.org/content.aspx?id=4432#mrsa>.

Management of SSTIs is summarized below; refer directly to the IDSA guidelines for management of invasive MRSA infections.

Summary of IDSA Treatment Guidelines for MRSA SSTIs in Adults and Children⁷

Cultures

- Obtain cultures from abscesses and other purulent SSTIs when:
 - antibiotic therapy is being used
 - patients present with severe local infection or signs and symptoms of systemic illness
 - a cluster or outbreak of SSTIs is suspected

Cutaneous abscesses

- Incision and drainage (I and D) is the primary treatment.
- For simple abscesses or boils, I and D alone is likely adequate treatment, but additional data are needed to clarify the role of antibiotics for these types of infections.
- Antibiotic therapy is recommended for abscesses associated with severe or extensive disease, rapid progression in presence of associated cellulitis, signs and symptoms of systemic illness, associated co-morbidities or immunosuppression, extremes of age, abscess in areas difficult to drain (e.g. face, hand, genitalia), associated septic phlebitis and lack of response to I and D.

For outpatients with purulent cellulitis (purulent drainage or exudate in the absence of a drainable abscess)

- Empirical therapy for CA MRSA is recommended pending culture results.
- Empirical therapy for infection caused by β -hemolytic streptococci is likely to be unnecessary.
- 5-10 days of therapy is recommended but should be based on the patient's clinical response.

For outpatients with nonpurulent cellulitis (cellulitis with no purulent drainage or exudate and no associated abscess)

- Empirical therapy for infection caused by β -hemolytic streptococci is recommended.
- Empirical therapy for CA MRSA is recommended in patients who do not respond to β -lactam therapy and may be considered in those with systemic toxicity.
- 5-10 days of therapy is recommended but should be individualized based on patient's clinical response.

Empirical antibiotic therapy in outpatients with SSTIs

- Oral antibiotic options include:
 - clindamycin
 - trimethoprim-sulfamethoxazole (TMP-SMX)
 - a tetracycline (doxycycline or minocycline)
 - linezolid
- If coverage for both β -hemolytic streptococci and CA MRSA is desired, antibiotic options include:
 - clindamycin alone
 - either TMP-SMX or a tetracycline in combination with a β -lactam such as amoxicillin
 - linezolid alone
- The use of rifampin as a single agent or as an adjunctive for the treatment of SSTIs is not recommended.

Treatment of hospitalized patients with complicated SSTIs (deeper soft tissue infections, surgical/traumatic wound infections, major abscesses, cellulitis, infected ulcers and burns)

- In addition to surgical debridement and use of broad-spectrum antibiotics, empirical therapy for MRSA should be considered pending culture results.
- Empirical antibiotic options include:
 - IV vancomycin
 - oral or IV linezolid 600 mg twice daily
 - daptomycin 4mg/kg/dose IV once daily
 - telavancin 10 mg/kg/dose IV once daily
 - Ceftaroline 600mg IV every 12 hours
 - clindamycin 600 mg IV or oral three times a day
 - a β -lactam such as cefazolin may be considered initially in hospitalized patients with nonpurulent cellulitis, with modification to MRSA-active therapy if there is no clinical response
- 7-14 days of therapy is recommended but should be individualized based on the patient's clinical response.

Pediatric considerations

- For children with minor skin infections such as impetigo or secondarily infected skin lesions (e.g. eczema, ulcers, lacerations), mupirocin 2% topical ointment can be used.
- Tetracyclines should not be used in children aged < 8 years.
- For children hospitalized with complicated SSTIs:
 - vancomycin is recommended
 - if patient is stable without ongoing bacteremia or intravascular infection, empirical therapy with clindamycin 10-13 mg/kg/dose IV every 6-8 hours (to administer 40 mg/kg/day) is an option if the local clindamycin resistance rate is low (e.g. less than 10%) with transition to oral therapy if the strain is susceptible.
 - linezolid 600 mg IV or oral twice daily for children aged ≥ 12 years and 10 mg/kg/dose IV or oral every 8 hours for children aged < 12 years is an alternative treatment.

Decolonization

Persons colonized with MRSA are potential sources of patient to patient transmission via health care workers' hands in healthcare settings. Measures to decolonize patients and staff with topical intranasal mupirocin have been used to control outbreaks and ongoing transmission in health care settings. Decolonization can be temporarily achieved but a significant portion of patients and health care workers become re-colonized within a relatively short time. Short-term mupirocin use may help interrupt nosocomial outbreaks, but infection control measures may be equally or more important.

Hemodialysis patients with recurrent bacteremias may benefit from decolonization treatment. Decolonization or treatment with an antiseptic agent may also be beneficial in preventing surgical site infections in patients undergoing certain orthopedic or cardiac surgeries. Health care workers should not be routinely screened and treated for nasal carriage unless shown to have an epidemiologic link to an outbreak. In summary, the decision to treat colonized patients should be made on a case-by-case basis with consideration of clinical and epidemiologic circumstances.

Routine decolonization of persons with CA MRSA is not recommended but may be considered for patients with recurrent SSTIs or when there is ongoing transmission among household or other close contacts. Decolonization does not prevent subsequent infections with methicillin sensitive *S. aureus* (MSSA) or MRSA in all patients, and mupirocin resistance has emerged. Other strategies to prevent transmission in households and community settings should be emphasized first (see prevention and control section).

Family contacts of patients with CA MRSA should not be routinely screened for MRSA unless there are extenuating circumstances such as multiple household contacts with SSTIs or household members who are immunocompromised.

Table 3 summarizes recommended decolonization strategies.

Table 3. Guidelines for decolonization of persons carrying MRSA⁷

1. Do not routinely attempt to decolonize all patients with MRSA colonization. Decolonization should be done only among patients likely to benefit clinically or in situations in which transmission is occurring among close contacts.
2. The treatment of choice is topical intranasal mupirocin (2%) applied to the anterior nares twice daily for 5-10 days (not for extended time intervals).
3. Patients colonized at multiple sites or those with chronic wounds, ulcers, or indwelling devices are less likely to respond to decolonization attempts. Treatment should be limited to a 10 day course to avoid development of mupirocin-resistant strains of MRSA.
4. Daily bathing or showering for 5-14 days using an antibacterial agent such as chlorhexidine gluconate is recommended to improve chances of decolonization. Dilute bleach baths (1 teaspoon per gallon of water or ¼ cup per 13 gallons of water) given for 15 minutes twice weekly for 3 months can also be considered. Alternative treatment with tea tree oil-containing body washes and lotions have been shown to be effective in achieving decolonization in some cases, and have the benefit of being less harsh on the skin.⁸
5. Screening cultures prior to decolonization are not routinely recommended if there is documentation of at least one previous MRSA infection.
6. Obtaining routine follow-up cultures in the absence of recurrent clinical signs of skin or other sites of infection is not routinely recommended., especially not just to remove an “isolation” label from the healthcare record
7. Oral antibiotics are recommended for treatment of active infections only and should not be used routinely for decolonization. They may be considered for decolonization if infections recur despite above measures. Repeat courses of antibiotics should not be administered.
8. Only health care workers suspected of transmitting MRSA should be screened and treated for carriage of MRSA.

Prevention and Control of Transmission of CA MRSA

Infection Control Measures in Health Care Settings

CA MRSA can be transmitted in health care settings.^{9, 10} Transmission occurs from patient to patient mainly by health care workers' hands that become contaminated from patient contact or contact with contaminated items.

In addition to standard precautions, contact precautions should be used for all patients with known MRSA colonization or infection, for patients with SSTIs compatible with a diagnosis of a staphylococcal infection until susceptibilities are known and for all patients with uncontained body secretions or wound drainage.

The Wisconsin Division of Public Health "Guidelines for Prevention and Control of Antibiotic Resistant Organisms in Health Care Settings" provides detailed infection control measures for healthcare settings. They may be found on the DPH website at <http://dhfs.wisconsin.gov/communicable/Communicable/HlthProvider.htm>.

Prevention of Transmission in Community Settings

Transmission of CA MRSA is associated with skin-to-skin contact and contact with environmental surfaces that have become contaminated. Outbreaks of skin infections have occurred among members of athletic teams, inmates of correctional facilities and patrons of health clubs. Common characteristics in settings in which CA MRSA has spread are close personal contact because of crowded conditions, lack of cleanliness and activities which cause skin breakdown (e.g. football and other contact sports).¹¹

Because CA MRSA is an emerging pathogen, more studies are needed to determine the best methods for controlling and preventing the spread of MRSA in the community. Current strategies that appear to be successful include increased awareness, early detection and appropriate treatment, and maintaining a clean environment.

- Increased awareness: Healthcare providers should be aware that CA MRSA is a possible etiologic agent in patients with SSTIs and in those presenting with more severe illness compatible with *S. aureus* infections. Healthcare providers should have an increased level of suspicion in patients with one or more risk factors listed in Table 2.
- Early detection and appropriate treatment: Methods to screen for early signs and symptoms of SSTIs should be implemented in correctional facilities, among contact sports participants and in settings where persons share close living spaces (e.g. homeless shelters, camps, boarding schools, daycare settings). Close contacts of persons with confirmed CA MRSA infections should be monitored for signs and symptoms of CA MRSA infections. If treatment is necessary, healthcare providers should be informed that the patient is a close contact of a patient with a CA MRSA infection. Outbreaks of MRSA infections in community settings should be reported to the local public health department.
- Maintaining a clean environment: Implementing steps to improve personal hygiene and environmental cleanliness appears to help control transmission of CA MRSA in crowded conditions and where use of shared items and equipment is common. See Appendix 2: "Guidelines for Personal Hygiene and Environmental Cleanliness in Community Settings."

Appendix 1: Information for Patients with Methicillin Resistant *Staphylococcus aureus* (MRSA) Infections

What is MRSA?

MRSA is a type of *Staphylococcus*, or “staph” bacterium that has developed resistance to some of the antibiotics usually used to treat persons with staph infections.

Staphylococcus aureus can be found on the skin or mucous membranes of approximately 25 to 30 percent of the US population. Of those persons who carry *S. aureus*, only about 1 percent carry MRSA. Most people do not have symptoms of infection but simply carry staph or MRSA on their skin or in their noses.

Who usually gets infections from MRSA?

MRSA infections occur most often in hospital patients, nursing home residents, or dialysis patients. They usually have weakened immune systems, chronic diseases or have indwelling devices such as IV lines or tracheotomies. This type of MRSA infection is caused by healthcare-associated MRSA (HA MRSA) which usually causes surgical wound infections, bloodstream infections, or pneumonia.

What is Community-Associated MRSA (CA MRSA)?

CA MRSA infections involve strains of MRSA that can cause infections in healthy persons who usually have not been patients in health care facilities. CA MRSA usually causes skin infections such as pimples and boils but occasionally causes more serious infections. Some patients may think they have spider bites in the early phase of these infections.

Anyone can acquire CA MRSA infections, but many cases have been found among athletes, military recruits, prisoners, Native Americans, Pacific Islanders, Alaskan Natives and children. Factors that seem to increase the chances of acquiring an infection with CA MRSA are close skin-to-skin contact, cuts, cracks, or abrasions in the skin, crowded living conditions, and poor hygiene.

How is an infection with CA MRSA treated?

Treatment of CA MRSA infections depends on the severity of the infection. Many skin infections can be treated with simple drainage of abscesses or pimples **without the need for antibiotics**. More serious infections may need oral, or rarely, intravenous antibiotic treatment. Your health care provider will be able to determine the best course of treatment for your condition.

What should I do if I have been diagnosed with a CA MRSA infection?

It is very important to follow the instructions from your health care provider. Your cooperation in treating the infection will help you to get healthy as quickly as possible. Follow these steps:

1. Follow the wound care instructions given to you by your health care provider.
2. If you received antibiotics or other medicines, be sure to take them according to the instructions given. Take your antibiotics until they are gone, even after symptoms have improved, unless your provider tells you otherwise.
3. Let your provider know if your symptoms become worse or do not get better within a few days. Be sure to return for any scheduled follow-up visits so your provider can determine whether your treatment is working.
4. Help prevent the spread of infection to others in your household by practicing these precautions until wounds or lesions are healed:

- a. Wash your hands often with soap and warm water. It is especially important to wash hands before close contact with others, after touching infected areas, after handling soiled bandages and dressings, and after contact with infected body fluids. Alcohol hand sanitizer may be used if hands are not visibly soiled.
- b. Instruct others to wash their hands after close contact with you and after assisting with wound care or following contact with dressings, wound drainage or other infected body fluids.
- c. Persons caring for you should consider use of clean, disposable gloves when touching wound drainage, changing dressings or handling infected body fluids. Wash hands immediately after removing gloves. Gloves may be discarded into the regular trash. If gloves are heavily soiled they should be placed in a plastic bag, sealed, and then placed into the regular trash.
- d. Cover the areas of skin or wound infections with a bandage or clean, dry dressing unless instructed otherwise by your provider. If drainage cannot be contained by dressings, use disposable or cloth pads to provide a barrier between infected areas and environmental surfaces.
- e. Dispose of heavily soiled used bandages, dressings, and disposable barriers by placing in a plastic bag before discarding into the regular trash. If not heavily soiled, they may be placed directly into the trash.
- f. Consider showering, especially with an antibacterial soap, before close physical contact with others.
- g. If wound drainage or other infected body fluids cannot be contained, limit physical contact (e.g. hugging, hand shaking, sharing beds) with others until drainage or body fluids can be contained.
- h. Do not share personal items such as razors, towels or clothing with others. Towels, clothing, and linens heavily soiled with wound drainage should be laundered in hot water and detergent or in warm water with chlorine bleach. Drying in a hot dryer (180°F) will also help sanitize laundry before use by others.
- i. Surfaces and items in the immediate environment of the infected person may be contaminated with wound drainage or infected body fluids. To clean and disinfect the area, first wash surfaces and items with detergent and water, then wipe with a household disinfectant such as Lysol® or a bleach solution (1 cup bleach plus 9 cups water) and allow to air dry.

Appendix 2: Guidelines for Personal Hygiene and Environmental Cleanliness in Community Settings

CA MRSA is most frequently transmitted from person to person by direct physical contact with an infected person. Important sources of person to person transmission of CA MRSA are the hands, skin and infected wounds and body fluids. CA MRSA may also be spread by direct contact with contaminated items and surfaces, although transmission occurs less often by this means.

One of the most important ways to protect against CA MRSA infections is to keep skin intact. Using protective gloves and clothing when performing activities likely to cause punctures, scratches, cuts, abrasions or other injuries to the skin will help prevent CA MRSA from causing skin and soft tissue infections. If injury to the skin does occur, the wound should be cleaned immediately with soap and warm water, dried, and then covered with a clean, dry bandage or dressing.

Other important strategies to prevent transmission of CA MRSA are hand washing, containing wound drainage and infected body fluids, and cleaning and disinfecting contaminated items and environmental surfaces.

The following guidelines provide steps to help reduce transmission of CA MRSA in certain community settings.

Gymnasiums, health clubs, spas¹²

1. Wash hands upon entering and before leaving the premises. Alcohol gel may be used as an effective and convenient alternative to soap and water. However, if hands are visibly soiled soap and water should be used.
2. Facilities should provide liquid soap dispensers instead of bar soaps for hand washing.
3. Use air blowers or disposable paper towels to dry hands rather than shared cloth towels.
4. Patrons should consider using clothing with long sleeves and long pants to protect skin from abrasions, cuts and sores during activities that are likely to cause skin damage.
5. Areas of skin lesions or open sores should be covered with clean, dry dressings or bandages before visiting gymnasiums and health clubs.
6. Persons with skin lesions, open sores or wounds with drainage that cannot be contained should not participate in activities that may contaminate surfaces and equipment.
7. Personal items such as towels, clothing, bar soap, razors or clippers should not be shared.
8. Patrons are encouraged to shower at the end of activities.
9. Use a towel or wear clothing that acts as a barrier between skin and exercise equipment such as exercise machines and massage tables.
10. Wipe surfaces of equipment before and after use—facilities such as health clubs can encourage patrons to clean equipment surfaces by providing spray bottles of disinfectant and paper towels near each piece of equipment.
11. Facility staff should clean shared equipment surfaces daily to remove soil, then disinfect with an EPA-registered disinfectant according to manufacturer's instructions. Check the disinfectant label to make sure it is suitable for the material being treated (e.g. vinyl, cloth, plastic, wood) and that it is

effective against *S. aureus*. The disinfectant must remain on the surface of equipment for the recommended contact time to be effective.

12. Laundry (e.g. used clothing, towels, sheets and blankets) should be washed in detergent and water at $\geq 160^{\circ}$ F for at least 25 minutes. If lower washing temperatures are used, oxygenated laundry detergents formulated for low temperature washing should be used. Use an automatic dryer on hot temperature (180°F) to dry items—do not air dry. Items should be used only after they are completely dry.

Sports Teams

The following measures may help prevent CA MRSA infections among participants in contact sports such as football, wrestling, hockey or basketball.

1. Team members should practice good hand hygiene by washing hands when entering and leaving locker rooms, weight rooms and other common sports activity rooms, and prior to participating in practice or competition. Alcohol hand sanitizers may be used instead of soap and water if hands are not visibly soiled.
2. Cover any open wounds or sores before participating in sports activities. Make sure bandages and dressings stay in place during activities.
3. Consider excluding players with potentially infectious skin lesions from sports activities until wounds are healed or can be adequately covered.
4. Participants in contact sports should be encouraged to shower with soap and warm water after practice and competition. If there are active infections of MRSA among team members, consider implementing antibacterial soap for showering.
5. Locker rooms should have adequate sinks, showers and soap supplies to encourage good personal hygiene.
6. Sports participants should not share personal items such as towels and razors.
7. Uniforms and equipment should be routinely cleaned after each use. Items that can be laundered should be washed in detergent and water at $\geq 160^{\circ}$ F for at least 25 minutes. If lower washing temperatures are used, oxygenated laundry detergents formulated for low temperature washing should be used. Use an automatic dryer on hot temperature (180°F) for items that can withstand those temperatures. Items should be used only after they are completely dry.
8. Maintain clean locker rooms and shower areas with regularly scheduled cleaning procedures.
9. Athletes, trainers and coaches should be trained to watch for wounds and skin lesions among team members and should recommend that athletes seek medical care if lesions appear infected.

Schools and Work Settings

1. Hand hygiene should be facilitated by providing adequate hand washing facilities and supplies. Hand washing supplies should consist of soap dispensers rather than soap bars, and paper towels for single use instead of multiple use cloth towels. Use of alcohol hand sanitizers should be encouraged as a convenient alternative to use of soap and water when hands are not visibly soiled.
2. Persons should wash hands after using rest rooms, before eating or drinking, after using tissue to cover sneezes or coughs, before and after use of gymnasium, weight rooms and other common sports activity areas, and whenever hands are contaminated or soiled.

3. Cover areas of open wounds or sores when possible. Wound drainage should be contained with bandages or dressings.
4. Persons with uncontained wound drainage or other infected body fluids should be excluded from school or work until wound drainage or body fluids are able to be contained.
5. Items and surfaces contaminated with blood, other body fluids or wound drainage should be cleaned promptly using established protocols.
6. Common areas in school and workplace settings (e.g. cafeterias, rest rooms, locker rooms, common work stations) should be kept clean by following regularly scheduled cleaning protocols.

See the Wisconsin Division of Public Health “Guidelines for Controlling CA MRSA among Students and Athletes” at <http://www.dhs.wisconsin.gov/communicable/MRSA/index.htm>

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