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To: Local Health Department Administrators

From: Damon T. Arnold, M.D., M.P.H.,
Director, Illinois Department of Public Health

CC: Dr. Christopher Koch, State Superintendent

Re: Student Athletes and Community-Associated MRSA Infections

Date: October 19, 2007

Recently, the Illinois Department of Public Health (IDPH) has received increasing reports of both outbreaks and sporadic cases of Community-Associated Methicillin Resistant *Staphylococcus aureus* (CA-MRSA) infections among student athletes. A similar increase is being reported nationally.

To limit the spread of staphylococcal infections, including MRSA, among student athletes, IDPH has developed the attached guidance on issues related to policy, infection control, and education/increased awareness.

Please be sure that this guidance is received at individual schools in your jurisdiction.

For additional questions related to MRSA in schools, please contact Judy Conway, R.N., CIC (judith.conway@illinois.gov), or Craig Conover, M.D. (craig.conover@illinois.gov).



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Illinois Department of Public Health Guidance for Schools Student Athletes and Community-Associated Staphylococcus Aureus (CA-MRSA) Infections

Background

Staphylococcus aureus, often referred to as “staph,” are bacteria commonly found on the skin or in the nose of healthy people. Approximately 25 percent to 30 percent of the populations carry the bacteria without becoming ill. Sometimes staph causes minor skin infections (e.g. pustules, small boils) that can be treated conservatively, without antibiotics. However, on occasion, staph bacteria can cause much more serious skin infections, as well as bloodstream infections, pneumonia, etc.

Over the past several years, treatment of some staph infections has become more problematic because the bacteria have become resistant to various antibiotics. Methicillin-resistant *Staphylococcus aureus* (MRSA) is a type of staph that is resistant to some antibiotics, including the antibiotic methicillin. Infections caused by MRSA have historically been associated with ill persons in health-care institutions. However, MRSA has now emerged as a common cause of skin and soft tissue infections that may occur in previously healthy adults and children who have not had prior contact with health-care settings. This type of MRSA infection is known as community-associated MRSA (CA-MRSA).

CA-MRSA can be transmitted from person to person through close contact. Risk factors associated with the spread of MRSA includes direct skin-to-skin contact with infected persons (non-intact skin serves as a point of entry for the bacteria), sharing contaminated personal items (e.g., towels, razors, soap, clothing), inadequate personal hygiene, direct contact with contaminated environmental surfaces, and living in crowded settings. CA-MRSA infections are treatable; early recognition and good medical management including, as needed, surgical drainage and proper antibiotic prescribing and usage, help to ensure prompt resolution of infections.

Recently, the Illinois Department of Public Health (IDPH) has received increasing reports of both outbreaks and sporadic cases of CA-MRSA infections. Likewise, there has been an increase in the number of outbreaks of CA-MRSA skin and soft-tissue infections reported at the national level. Outbreaks of CA-MRSA have occurred among athletes, especially participants in contact sports (e.g., football, wrestling) and sports where participants are prone to skin abrasions.

Recommendations

To limit the spread of staph, including MRSA in school settings, IDPH recommends the following with respect to policy, infection control, and education/increased awareness:

1. Policy

The school health service should take an active role in evaluating students with skin lesions, including lesions that resemble a “bug bite,” or other pustule skin lesions that appear to be infected. It is recommended that any unusual skin lesion or other draining wound be considered as potentially infectious to others and infection control measures should be in place to prevent the spread of infection. Students

with any open, weeping, or pustule lesion on the skin (other than acne) should be promptly referred to a primary care provider for consultation.

Transmission of MRSA infection among students, including student athletes, can have substantial impact. Therefore, a policy for active surveillance for skin infections should be implemented by the school nurse, school physician, and/or director, coach or trainer of sports teams (especially those teams involved in contact sports) to expedite referral for medical evaluation. Coaches and/or athletic trainers should be encouraged to assess student athletes for any unusual skin lesions before practice or competition.

When MRSA infection is suspected, athletes should be referred to their primary care provider for evaluation and treatment. Following the medical evaluation, confirm that a treatment plan for the student athlete is in place. Those infected with MRSA or other staph infections should follow their healthcare provider's treatment plan, including completing antibiotic therapy, if an antibiotic was prescribed. (Note: IDPH has developed guidance for health care providers regarding MRSA infections, available at http://www.idph.state.il.us/health/infect/MRSA_Provider.htm).

If MRSA is diagnosed in a student athlete, the school should evaluate the possibility of other cases among their teammates.

Because bandages can shift or dislodge with activity or when wet, students with draining wounds should not be allowed to participate in practices, games, or physical education classes that involve contact with others until the wound has stopped draining. The student may participate in non-contact athletic activities such as weight-lifting, running, or jogging provided he/she observes good hygienic practices (e.g., washing hands) and the wound is covered at all times with a clean, dry, intact bandage.

Clusters of MRSA infections (i.e., three or more laboratory-confirmed cases during a 14 day period) should be promptly reported to the local health department, as required by the newly proposed Illinois Department of Public Health Rules and Regulations. (Note: Local health departments are available for consultation in any situation where assistance is needed, regardless of whether or not a cluster has been confirmed.)

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 the specific situation, whether some or all parents and staff should be notified. When necessary, consult with the local health department. Prior to parent notification, discuss the issue with the school administrator.

2. Infection Control

The following infection control measures are prudent in school settings in order to reduce the likelihood of spread of skin infections:

- **Keep the Wound Covered.** All skin infections, particularly those that produce pus, must be covered with a clean, dry dressing (e.g., bandage) to contain the drainage. Keeping the wound covered will help control the spread of potentially infectious drainage to others and also can protect the environment from contamination. When providing wound care or dressing changes in the school setting, staff must prevent any unprotected contact with potentially infectious materials by use of gloves. Contaminated dressings and other materials associated with the infected lesion should be placed in a plastic bag before discarding, as appropriate.

- **Hygienic Practices**

To prevent spread of MRSA or other infections all members of the school community should routinely be diligent with hand hygiene. To this end, ensure availability of adequate soap, warm water and towels. Advise any MRSA-infected student and all those who might have contact with the infected wound or wound dressing to thoroughly wash their hands using soap and warm water or to use an alcohol-based waterless hand sanitizer immediately after contact. In addition, emphasize the importance of good hygiene overall with all students, including showering and washing with soap after all practices, and competitions. MRSA outbreaks have clearly occurred in settings where athletes did not have access to, or did not, use soap for handwashing or showering.

- **Sharing Personal Items** Instruct students and athletes to avoid sharing personal hygiene supplies and other items such as athletic clothing, towels, uniforms, skin balms, skin lubricants, razors, and certain sports equipment. It is particularly important to avoid sharing personal items that may have been in contact with the infected wound or bandage. Also, do not permit students to share individual-use bars of soap. Provide alcohol-based waterless hand sanitizer for hand hygiene when soap and water is not available.
- **Laundering Soiled Clothing** Team uniforms and clothing worn during practices should be laundered with hot water and laundry detergent as appropriate. Dry items in a hot dryer to help eliminate bacteria when possible.
- **Cleaning Environmental Surfaces** Establish a written procedure and schedule for routine surface cleaning of shared athletic equipment and ensure cleaning products are used in accordance with the manufacturer's instructions. Clean and disinfect environmental surfaces and athletic equipment that has been in contact with potentially infectious wound drainage, blood, or non-intact skin utilizing an EPA-registered disinfectant cleaner that meets the requirements of the Occupational Safety and Health Administration (OSHA) Bloodborne Pathogens Standard or a 1:10 dilution of household chlorine bleach (one part bleach in nine parts water, prepared daily). Use an EPA-registered low-level disinfectant (e.g., quaternary ammonium solution) or a general purpose cleaner to clean environmental surfaces and athletic equipment that is in contact with intact skin. Mats and other high-use equipment should be cleaned before and after each practice and several times a day throughout a tournament.

3. Education/Increased Awareness

Transmission of MRSA skin and soft tissue infections among students who participate in competitive sports is a significant concern. All persons (e.g., coaches, trainers, parents/caregivers, and teammates) associated with the school's competitive sport activities and sport teams should engage in initiatives to increase adherence to the school's policies and procedures designed to prevent transmission of MRSA skin infections, and awareness of risk factors for infections.

Sending a letter to student athletes and their parents regarding precautions and preventive measures related to CA-MRSA is prudent practice. Athletes and their parents should be aware that possible risk factors for MRSA skin and soft tissue infection occurring among athletes include:

- Physical contact/skin trauma

- “Turf burns” (football players)
- Contact with teammates’ uncovered skin lesions
- Sharing protective equipment, clothing or towels
- Sharing sports equipment
- Sharing personal hygiene items
- Reuse of unlaundered towels, clothing, uniforms, etc.
- Inadequate supply of dispensable or individual-use soap
- Cosmetic body shaving
- Poor personal hygiene practices, including infrequent hand washing
- Poor environmental cleaning of locker rooms/sport rooms

In addition, since staph infections start when staph enter the body through a break in the skin, keeping skin healthy and intact is a good preventive measure. Good skin care should be encouraged among student athletes.

For additional information, please contact your local health department.

Additional Resources:

MRSA Health Beat. Illinois Department of Public Health. Available at <http://www.idph.state.il.us/public/hb/hbmrsa.htm>

Community-Associated MRSA Information for the Public. U.S. Centers for Disease Control and Prevention. Available at: http://www.cdc.gov/ncidod/dhqp/ar_mrsa_ca_public.html

MRSA Educational Materials (posters). U.S. Centers for Disease Control and Prevention. Available at: http://www.cdc.gov/ncidod/dhqp/ar_mrsa_ca_posters.html

MRSA Health Beat. Illinois Department of Public Health. Available at <http://www.idph.state.il.us/public/hb/hbmrsa.htm>