

PENN-TRAFFORD HIGH SCHOOL
HEALTH/ATHLETIC SERVICES

MRSA-CA INFORMATION

DEFINITION: Methicillin-Resistant *Staphylococcus aureus*. A staph infection *in the community* that is resistant to the antibiotics called beta-lactams (i.e. Methicillin; Oxacillin; Penicillin; Amoxicillin).

Staphylococcus aureus: commonly known as “staph” are bacteria. Between 20-50% of the general population carry staph in their nose or on their skin. Not all of these staph will cause MRSA. It is estimated that only one percent of the population carries the staph that causes MRSA. The people who are carriers are healthy and do not have any active symptoms of infection. Only when staph enters the skin does an infection occur. Staph causes skin infections, both minor and more serious.

HISTORY:

MRSA was first diagnosed in the United States in the 1960's and until recently was almost exclusively confined to health-care institutions. MRSA is known to cause surgical wound infections, urinary tract infections, bloodstream infections, and pneumonia in these institutions. Usually the infections occur in patients with weakened-immune systems.

MRSA-CA: people who have acquired the MRSA staph infection that *have not* been in the hospital or had a medical procedure in the past year. They have in essence, *acquired* this infection *in the community*. MRSA-CA began to be identified in the late 1990's.

MRSA-CA is now the most commonly identifiable cause of skin and soft-tissue infection in many emergency rooms. Children's Hospital of Pittsburgh estimates that the number of MRSA-CA cases seen in their emergency room has more than tripled in the past two years.

The overuse of antibiotics is believed to play a significant role in the virulence of staph. Antibiotics are only effective against bacteria, not viruses.

SYMPTOMS OF MRSA-CA:

MRSA-CA usually manifests itself in lesions that look like a pimple or boil. They can be red, swollen, warm, painful, or may have pus or other drainage. Simple red bumps resembling pimples can quickly turn into deep, painful abscesses that require surgical drainage. They can also burrow deep into the body, causing potentially life-threatening infections in bones, joints, the blood stream, heart valves, and lungs. **Most infections are not severe.** The difference with MRSA vs other staph infections, is that they **are resistant** to treatment with some antibiotics. They **are not** more frequent or severe in nature than other staph infections.

HOW IS MRSA-CA SPREAD?

Most commonly, MRSA-CA is spread by contact with the hands, skin drainage, or secretions from the nose of a person who is infected or is a carrier. This often occurs with close skin-to-skin contact; openings in the skin such as cuts and abrasions; contaminated items and surfaces; crowded living conditions; and poor hygiene. It is believed that direct person-to-person contact is more of a causative agent than environmental surfaces.

The risk for transmission of MRSA is much greater among athletes than among students in the classroom.

PREVENTION:

We cannot eliminate staph in our environment or on people who are carriers. We CAN prevent the spread of MRSA-CA and other skin infections by adhering to the following procedures:

-good hand washing. Proper hand washing is the single most effective defense against bacteria and viruses. Wash hands thoroughly with soap and water or an alcohol-based hand sanitizer.

-properly clean all cuts and abrasions and keep them covered with a clean, dry bandage until healed.

-do not touch people's cuts or bandages

-using proper protective equipment when changing dressing and utilize proper hand washing.

-practice good hygiene

-avoid sharing personal items such as towels, razors, tweezers, lipstick, skin moisturizers

-avoid piercings and tattoos

-clean and disinfect gym and equipment bags

-if you have a compromised immune system and think you have been exposed to a staph or other infection, contact your physician.

-all cuts and abrasions should be treated by the nurse or athletic trainer

-clean surfaces with a disinfectant effective against MRSA or a bleach-water solution (1/4 C of 5.25% household chlorine bleach to one gallon water).

MRSA is capable of prolonged survival on surfaces up to 24 hours after contamination.

PREVENTION: ATHLETES

- immediately shower after each practice or competition using soap and a clean towel
- towels need to be washed afterwards in HOT water and dried at a high heat until completely dried
- wash all athletic clothing worn during practice or competition **daily**
- clean and disinfect gym bags (do not use canvas bags; use bags that can be thoroughly cleaned)
- use a barrier between your skin and shared equipment items
- wipe surfaces of shared equipment before and after use (i.e. items in a gym or health club)
- do not leave towels or equipment in piles on the floor
- wash athletic gear every week and hang to air
- clean and disinfect protective equipment such as helmets, shoulder pads, catcher's equipment; goalie equipment etc.
- do not share towels or personal hygiene products; one towel per athlete
- cover all skin lesions
- all new skin lesions occurring during practice need to be reported to the trainer and treated promptly
- playing fields need to be inspected frequently for debris that could cause cuts or abrasions
- sanitize athletic lockers between seasons
- locker rooms should have tile floors
- wrestling and gymnastics mats need to be sanitized daily
- weight room equipment-including benches; bars; handles, should be cleaned and sanitized between each user
- all locker rooms and training areas need to have a spray disinfectant effective against MRSA readily available

TREATMENT:

Any lesion that is suspicious should be seen and treated by a physician. Most staph and MRSA infections are treatable with antibiotics, other than the beta-lactam family. Wounds should be cultured before antibiotics are started. All antibiotics should be taken until finished.

MRSA-CA IN THE SCHOOL SETTING:

-students known to be carriers of MRSA in the nose or skin **do not need to be excluded** from the “healthy” classroom. The risk for acquiring MRSA in the school setting is no greater than the risk of acquiring a skin infection caused by other pathogens.

-students with active MRSA infections may cause an added risk for other students with severely compromised immune systems.

-students with an active case of MRSA-CA should keep their wounds covered with a clean, dry dressing. Dressings need to be disposed of properly to avoid the spread of infection (in a closed, plastic bag).

-those who have contact with the infected wound need to use proper hand washing and wear personal protective equipment (gloves).

-students need to be under the care of a physician and must complete their antibiotic therapy

-students with wounds that cannot be covered present a risk to others

Sources:

National Athletic Trainers’ Association

National Association of School Nurses and Nurse Practitioners

PSEA: School Nurse Section

Center for Disease Control

Pennsylvania Department of Health