

Understanding and Dealing With MRSA

The Basics — What Is It And Where It Is Found?

Disturbing, frightening and seemingly relentless, MRSA (Methicillin-resistant Staphylococcus aureus) has haunted the consciousness of the nation. Like a modern-day plague, MRSA, a type of bacterial “staph” infection resistant to commonly used antibiotics, has prompted the concern of health officials, business owners and the general public due to its increasing spread, adaptability and virtual defiance of conventional treatments.

Staph bacteria is so ubiquitous that many of us unknowingly carry it “colonized” on our bodies — it resides on the skin or in the nasal passages of nearly 30 percent of the population. This common bacteria can mutate into a viable threat in hospitals and other healthcare environments when staph takes advantage of insect bites, skin abrasions, cuts and surgical incision avenues into the body to cause pneumonia, wound, bloodstream or urinary tract infections in patients with weakened immune systems.

First discovered in 1961, these MRSA infections are fiercely resistant to usually reliable beta-lactams antibiotics such as methicillin, oxacillin, penicillin and amoxicillin. In rare cases, mild skin infections featuring boils or pimples can transform into necrotizing fasciitis (“flesh eating”) bacterial infections that can spread with horrifying speed and result in amputations or death.

Currently, the majority of MRSA cases are in healthcare settings. According to an October 2007 study published in “The Journal of the American Medical Association” (JAMA), approximately 85% of invasive MRSA infections occur in these environments, while 14% are categorized as community-associated (CA-MRSA) infections, or in those individuals lacking the risk factors associated with healthcare environments. As outlined in a Centers for Disease Control and Prevention (CDC) report, more individuals died from MRSA in 2005 than from AIDS.

Transmission and Vulnerability

MRSA is transmitted primarily from the colonized hand of a patient or healthcare worker who did not properly wash their hands. Swollen, red and pus-filled areas from surgical incisions or skin irritations characterize the skin of infected individuals. It can also reside in hair-covered regions such as the back of the neck or the groin, and is frequently mistaken for a spider bite.

CA-MRSA, on the other hand, is usually transmitted via skin cuts and abrasions in environments where there is predominantly close-quarter human contact — everywhere from airports to military bases, gymnasiums, locker rooms, pool areas, ball fields, day care centers and penitentiaries. A common risk factor is the sharing of towels, razors and other personal hygiene products. According to the CDC, individuals over age 65 are especially vulnerable to MRSA and CA-MRSA, and culturally, records show that black people appear to experience infections at twice the rate of caucasians.

Regrettably, MRSA is gaining strength outside of healthcare settings and had found its way into the community. One only has to consult the mainstream media to discover CA-MRSA outbreaks among competitive sports teams from the high school to the professional level. The infection has affected professional sports players and has contributed to the deaths of high school and college athletes across the country. In addition to the risk factor of close contact associated with sports, the sharing of equipment or clothing may also be a contributor.

What If You Think You Have It?

The bottom line is that if you have a skin cut, abrasion or something that looks like a spider bite or even a pimple that is not responding to conventional first aid methods or over-the-counter medications, you should consult your physician immediately. Even though MRSA and CA-MRSA are frequently resistant

to antibiotics, your physician can devise a treatment strategy utilizing a variety of medications that can be adjusted or augmented.

If you are already under a physician's care for an infection, pay particular attention to the effectiveness of the medication. If you notice that the infection is getting worse, or if you start running a fever or have trouble breathing, contact your physician immediately. If you have a condition that lowers your immunity, you are at a higher risk of MRSA and CA-MRSA infection. If you think that you might have an infection, contact your physician immediately.

It's also important to keep in mind that you should avoid asking your physician for antibiotic treatments for a simple cold or flu. Increasingly, the medical community is coming to the realization that MRSA and CA-MRSA are resistant to conventional antibiotics due to the over prescribing of such medications.

Prevention — Cleaning Up Your Act

Now that you understand the dangers of MRSA and CA-MRSA in more detail, your emphasis should be on avoiding infection and outbreaks by practicing common sense and good personal hygiene. This advice, based on recommendations by the CDC and healthcare professionals is not solely applicable to individuals. If you hold a position of responsibility with a business or concern where close human contact is frequent, you should pay particular attention to the following recommendations:

- Make sure your hands are clean by thorough and frequent washing with soap and warm water or by using an alcohol-based hand sanitizer and/or antimicrobial cleanser — especially after changing bandages or touching wounds
- Take your time washing your hands — it should take as long as it takes for you to recite the alphabet
- Constantly clean cuts and scrapes and cover them with bandages until they are healed
- Discard any soiled bandages and used adhesive tape

- Avoid contact with the wounds and bandages of others, if possible
- Shower immediately after exercise, athletic practice or competitions
- Do not share or tolerate the sharing of personal items such as towels, razors, bar soap or deodorant
- Do not share or tolerate the sharing of athletic equipment, uniforms or other clothing
- Immediately wash soiled towels, sheets and clothes with laundry detergent and dry them on the hot dryer setting to kill bacteria
- Wipe equipment surfaces thoroughly after use
- Maintain a cleaner environment through mandated cleaning procedures for frequently touched equipment and surfaces thereof
- If you think you have an infection, contact your physician immediately



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