



MRSA: The Fears, the Facts and What Parents Really Need to Know

By Melanie Snyder

News stories about MRSA, or Methicillin-resistant *Staphylococcus aureus*, are appearing with increasing frequency and often focus on the rare cases of life-threatening infections and deaths caused by MRSA. These stories can strike fear into the hearts of parents, especially those whose children are hospitalized regularly or in contact with others who are. So how much is hype and what are the facts about MRSA?

What is it?

MRSA, a type of staph bacteria, has been around for nearly 40 years. MRSA infections used to occur primarily in hospitals, but recently a new form of MRSA has shown up in other settings, including schools, day care centers and athletic facilities. MRSA bacteria are resistant to methicillin, penicillin and a few other commonly used antibiotics, so MRSA infections can be difficult, though not impossible, to treat.

How infection occurs

Some people are “carriers” - that is, the MRSA germ may reside on their skin, or in their nose or throat, without them having an active infection. Other people may have an active MRSA infection. The germ can be passed either from carriers or from people with active infections through contact with their skin, clothing or other surfaces that have been contaminated with the MRSA bacteria. In addition, MRSA bacteria can be transmitted through bodily fluids associated with coughing and sneezing.

The Centers for Disease Control and Prevention (CDC) note that MRSA is more likely to be transmitted in places where one or more of the “5 C’s” exist:

Crowding, frequent skin-to-skin Contact, Compromised skin (cuts or abrasions), Contaminated items and surfaces, and lack of Cleanliness. Pets can also carry MRSA bacteria on their skin and can spread it to humans.

Infections may occur when MRSA bacteria get into small cuts or other skin wounds. MRSA infections can range from very mild to life-threatening. Skin infections are the most common type of MRSA infections. In rare cases, MRSA can cause infections in the lungs or blood.

Diagnosis and Treatment

A MRSA infection of the skin often looks like a bug or spider bite, a small boil or a fluid-filled blister. If your child has any of these symptoms, or if they have a cut or other skin wound that becomes swollen or filled with pus, see a doctor.

Doctors typically treat MRSA skin infections by draining and cleaning the wound, often with an antimicrobial soap, then administering antibiotic or antimicrobial ointment and a bandage or dressing to keep the wound covered. Other, more rare types of MRSA infections may require oral antibiotics. The free online booklet “Living With MRSA” offers information about how to cope with a MRSA infection (see Resources).

Prevention - At Home

According to numerous experts, the most effective way to prevent MRSA infections is frequent hand

washing with plain old soap and warm water (preferably liquid soap from a dispenser, rather than bar soap) or an alcohol-based hand sanitizer. According to Worldwatch Institute (www.worldwatch.org), “studies show that antibacterial soaps are not significantly more effective at combating germs than regular soaps. Even worse, their popularity is contributing to the growing problem of drug-resistance.” The Association for Professionals in Infection Control and Epidemiology (APIC) provides a detailed hand hygiene brochure that explains the most effective procedure for hand washing (see Resources).

Teach your children how to wash their hands properly and reinforce good hygiene habits both at home and in public places. After wetting their hands and applying soap, have them sing the ABC’s or “Row, Row, Row Your Boat” while vigorously rubbing their hands together to ensure they wash long enough to remove germs. Then, show them how to rinse thoroughly, with their hands angled downward so the contaminated, soapy water doesn’t run up their arms. Paper towels are best for drying, but if using cloth towels, provide a separate towel for each family member and wash towels regularly in hot water. The towel should be used to turn off the faucet to avoid re-contaminating hands. The child-friendly hand-washing poster from the Virginia Department of Health can serve as an effective reminder of the basic steps (see Resources).

If your child gets a small cut or skin wound, clean the cut thoroughly with soap and warm water, cover with an antimicrobial ointment and

keep the wound covered with a clean, dry bandage. If the wound gets red, swollen or tender, or if it oozes, see a doctor.

At School

With the high level of publicity given to MRSA cases, many schools and day care centers have adopted policies to help reduce the risk of infections. Ask your child's school or child care administrators whether they have hygiene policies and education programs in place to help prevent MRSA and other infections. If not, you could provide them with a copy of the MRSA guidelines for schools created by the Centers for Disease Control and Prevention (see Resources). Children should also be taught not to share towels, washcloths, clothing, hats or personal hygiene items such as razors, toothbrushes or combs with classmates or friends.

If your child participates in sports, talk with your child's coach about ways to protect team members from the risk of infection and offer to help sanitize equipment regularly. PreventInfection.org offers a flier with information on MRSA for athletes and coaches (see Resources). Help your child understand the importance of not sharing uniforms, helmets or other equipment.

In Health Care Settings

If your child needs hospitalization or surgery, talk with the doctor about infection-prevention procedures and

any antibiotics that will be given to your child before, during and after surgery.

Barry Farr, MD, a national leader in infection control and infectious diseases with the University of Virginia Health System, recommends that anyone undergoing surgery be screened for the *S. aureus* bacteria ahead of time so they can be given nasal ointment and antiseptic baths before surgery if *S. aureus* is present.

"If it is MRSA, one can try to eradicate it and should use an antibiotic active against MRSA during the procedure," he recommends.

According to Farr, the biggest potential MRSA risk to your child in a hospital setting has less to do with how medical staff approach your child than how they deal with all other children. If the hospital doesn't have a systematic approach to detecting and isolating patients with MRSA, he warns, "the physicians and nurses will often arrive in your child's room with contaminated hands, clothes, medical equipment (eg, stethoscope, tourniquet, reflex hammer, ophthalmoscope, otoscope, blood pressure cuff, etc.) and/or personal equipment (e.g., ink pens, notebook, PDA, cell phone, pager, etc.). To visualize this, think of the character Pigpen from the comic strip *Peanuts* who is always drawn with dots on him signifying filth; now think of Pigpen arriving dressed in a white coat as your child's physician or nurse."

Request a meeting with the

Infection Prevention & Control Professional (ICP) at the hospital where your child will be admitted to get information on their MRSA detection and isolation policies, infection control procedures and recent infection rates. The Association for Professionals in Infection Control and Epidemiology, Inc. (APIC) brochure, "Strike Out Infection" provides tips for healthcare patients on what to do before, during and after receiving medical care to reduce the risk of infection (see Resources).

Family members and visitors also need to follow good hygiene when visiting a child in the hospital. Keep a bottle of alcohol-based handrub, rinse or gel in your child's room so that all visitors can sanitize their hands before and after visiting with your child. The handrub should contain at least 60% alcohol and an emollient such as glycerol or other skin conditioner to help prevent drying out the skin. Ask all visitors to sit on the visitor's chair rather than on your child's bed.

Whether at home, school, hospital or elsewhere, both you and your child can reduce your risk of MRSA infection by knowing the facts, using common sense and following good hygiene habits. ■

Melanie G. Snyder has written for over 25 parenting magazines across the US and Canada, children's magazines Cricket, Calliope and Guideposts for Kids, education publishers Harcourt, Scholastic, and SIRS and others. www.MelanieGSnyder.com

Resources

- **Hand Hygiene brochure from APIC**

www.preventinfection.org/AM/AMTemplate.cfm?template=/CM/ContentDisplay.cfm&ContentID=9098

- **Child-friendly hand-washing poster from Virginia Dept of Health**

www.vdh.virginia.gov/Epidemiology/Surveillance/Getsmart/documents/germposter.pdf

- **MRSA Guidelines for Schools from Centers for Disease Control**

www.cdc.gov/Features/MRSAinSchools

- **MRSA flier for athletes and coaches**

www.preventinfection.org/Content/NavigationMenu/Education/InfectionPreventionWeek/2007InternationalInfectionPreventionWeek/LinksResources/MRSA-GotaBug_Pamphlet-margins2007.pdf

- **Strike Out Infection: What Healthcare Patients Should Know and Do from APIC**

www.preventinfection.org/AM/Template.cfm?Section=The_Superbug_MRSA&Template=/CM/ContentDisplay.cfm&ContentFileID=9792

- **Living with MRSA from Washington State Dept of Health**

www.tpchd.org/files/library/72640dd923f76e37.pdf