

## UNIVERSITY of MINNESOTA MEDICAL CENTER

### Methicillin-Resistant Staphylococcus aureus (MRSA)

*Staphylococcus aureus* bacteria are often called "staph." They are common germs that can cause mild to severe infections of the skin, lungs, bones, and blood. Staph infections were once easily treated with antibiotics. But one type of staph no longer responds to many antibiotic medications. This bacteria, called MRSA. Often affects people in hospitals and long-term care facilities. It is also spreading among healthy children and adults outside the healthcare system. When a person carries the bacteria but is healthy, it's called being colonized with MRSA. This person can spread MRSA to others. When a person gets sick because of the bacteria it is called being infected with MRSA. This person can also spread MRSA to others. If not treated properly, MRSA infections can be fatal. This sheet tells you more about MRSA and what hospitals are doing to control this serious problem.

### What Are the Risk Factors for MRSA?

Anyone can pick up MRSA and become colonized or get sick with the infection. Certain risk factors make colonization or infection more likely. These include:

- Playing contact sports or sharing towels or athletic equipment
- Living or having close contact with someone who is infected or colonized
- A current or recent stay in a hospital or long-term care facility
- A recent operation or wound treatment
- Having a feeding tube or catheter (a tube placed in the body)
- Receiving kidney dialysis
- Older age
- Having a weakened immune system or serious illness
- Injecting illegal drugs

### How Does MRSA Spread?

- People who are colonized with MRSA have MRSA in their noses or on their skin. Though they are not sick themselves, they can spread the germs to others.
- In hospitals and long-term care facilities MRSA can spread from patient to patient on the hands of healthcare workers. It can also spread on objects such as cart handles, bedrails, and catheters.
- Outside healthcare settings, MRSA usually spreads through skin-to-skin contact, shared towels or athletic equipment. Or through close contact with an infected person.

### What Are the Symptoms of MRSA Infection?

Some MRSA infections start as small red bumps that look like pimples or spider bites. These sores can quickly turn into severe abscesses (pus-filled areas of infection). MRSA can also start in other ways. And it can spread deeper into the body where it can cause one or more of the following:

- Infections in bones, muscles, and other tissues
- Pneumonia ( a serious lung infection)
- Infection in the bloodstream
- Endocarditis (infection of the lining of the heart and heart valves)
- Infection of the urinary tract (bladder and kidneys)

### How Is MRSA Diagnosed?

A sample of blood, urine, or infected tissue may be taken to diagnose a MRSA infection. A swab of the inside of the nose is taken to diagnose colonization. The sample is then sent to a laboratory and tested for MRSA.

### How Is MRSA Infection Treated?

MRSA infections are usually treated with a powerful antibiotic. This is given through an IV placed in the arm. If a skin abscess is present it may be drained.

### How Is MRSA Colonization Treated?

Patients who test positive for MRSA colonization may undergo a process called decolonization. The doctor may prescribe antibiotics that are placed in the nose to kill the bacteria. Not everyone who is colonized with MRSA requires decolonization. Talk with your doctor about the risks and benefits of being treated.

## Preventing MRSA: What Hospitals Are Doing

### Many hospitals and nursing homes take these steps to help prevent MRSA:

- **Hand washing:** This is the single most important way to prevent the spread of germs. Healthcare workers wash their hands with soap and water *or* an alcohol-based hand cleaner before and after treating each patient. They also clean their hands after touching any surface that may be contaminated.
- **Protective clothing:** Healthcare workers and visitors may wear gloves and a gown when entering the room of a patient with MRSA. They remove these items before leaving.
- **Private rooms:** Patients with MRSA infections are placed in private rooms or in a room with others who have the same infection.
- **Personal care items:** Patients with MRSA may have their own patient care items. Such as thermometers and stethoscopes. If these items are shared, they are fully cleaned and disinfected before reuse.
- **Monitoring:** Hospitals monitor the spread of MRSA and educate caregivers on the best ways to prevent it.

## Preventing MRSA: What Patients Can Do

- Ask all hospital staff *to* wash their hands before touching you. Don't be afraid to speak up!
- Wash your own hands frequently with soap and water. Or use an alcohol-based hand gel containing at least 60 percent alcohol.
- Ask that stethoscopes and other instruments be wiped with alcohol before they are used on you.
- **If you have a urinary catheter (a soft tube in the bladder that drains urine). Ask to have it removed as soon as possible.**
- **Be sure you're tested for MRSA if you have a skin infection. Treating an infection with the wrong antibiotic can slow recovery and make MRSA harder to treat.**

## Preventing MRSA: What Can Be Done Outside the Hospital

- Wash your hands often with warm water and soap. Or, use an alcohol-based hand gel containing at least 60 percent alcohol.
- Keep cuts and scrapes clean and covered until they heal.
- Avoid contact with the wounds or bandages of others. Avoid sharing towels, razors, clothing and athletic equipment.

## Tips for Good Hand washing

- Use warm water and plenty of soap. Work up a good lather.
- Clean the whole hand, under your nail, between your fingers, and up the wrists.
- Wash for at least 15 seconds. Don't just wipe. Scrub well.
- Rinse letting the water run down your fingers, not up your wrists.
- Dry your hands well. Use a paper towel to turn off the faucet and open the door.

## Using Alcohol-Based Hand Gels

Alcohol-based hand gels can be used when your hands aren't visibly dirty.

- Squeeze about a tablespoon of gel into the palm of one hand.
- Rub your hands together briskly, cleaning backs of hands, palms, between fingers, and up the wrists.
- Rub until the gel is gone and your hands are completely dry.

## Precautions When Caring for Someone with MRSA

- Wash your hands well with soap and water before and after any contact with the patient. An alcohol-based hand gel containing at least 60 percent alcohol is also a good choice.
- Wear gloves when changing a bandage or touching an infected wound. Discard gloves after each use. Then wash your hands well.
- Wash the patient's bed linen, towels, and clothing in hot water with detergent and liquid bleach.

## Understanding Drug Resistance

Hard-to-kill (resistant) germs, such as MRSA, develop when antibiotics are taken longer than necessary or when they're not needed. Any germs that survive treatment with an antibiotic can go on to reproduce and create more resistant germs. The more often antibiotics are used; the more chances resistant germs have to develop. This is why your healthcare provider *may* hesitate to prescribe antibiotics unless he or she is certain that they are needed.