

# New York State Department of Health

## Methicillin-Resistant *Staphylococcus Aureus* (MRSA)

Last Reviewed: October 2007

### What is MRSA?

MRSA refers to a type of bacteria (*Staphylococcus aureus*) that is resistant to many antibiotics. It is a common cause of hospital-acquired infections.

### Who gets MRSA?

Anyone can get MRSA, but it is found most often in hospitalized patients.

### What are the symptoms associated with MRSA infection?

MRSA infections can cause a broad range of symptoms depending on the part of the body that is infected. These may include surgical wounds, burns, catheter sites, eye, skin and blood. Infection often results in redness, swelling and tenderness at the site of infection. Sometimes, people may carry MRSA without having any symptoms.

### How is it transmitted?

The staph bacteria is generally spread through direct contact with the hands of a health care worker or patient who is infected or carrying the organism.

### How long can an infected person carry MRSA?

Some people can carry MRSA for days to many months, even after their infection has been treated.

### How are MRSA infections diagnosed?

MRSA infections can be diagnosed when a doctor obtains a sample or specimen from the site of infection and submits it to a laboratory. The laboratory places the specimen on a special "culture" plate containing nutrients, incubates the plate in a warmer and then identifies the bacteria. The final step is for the laboratory to conduct tests using various antibiotics to determine if the bacteria are resistant (able to withstand or tolerate) or sensitive (susceptible to killing) to select antibiotics.

### What is the treatment for MRSA?

Although MRSA cannot be effectively treated with antibiotics such as methicillin, nafcillin, cephalosporin or penicillin, it can usually be treated with an antibiotic called vancomycin. Recently, however, a few strains of *Staphylococcus aureus* have even developed some degree of resistance to vancomycin. The vancomycin-resistant strains may be more difficult to treat. Newer antibiotics are being developed to address this problem.

### How can the spread of MRSA be controlled?

Careful hand washing is the single most effective way to control spread of MRSA. Health care workers should wash their hands after contact with each patient. If the patient is known to have an MRSA infection, the health care worker should wear disposable gloves. Depending on the type of contact, a gown should also be worn. Patients must also wash their hands to avoid spreading the bacteria to others.

## What about contact with carriers?

If basic hygiene precautions are followed, MRSA carriers are not a hazard to others including their family and friends.

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