MRSA (Methicillin Resistant Staphylococcus Aureus)

What is Staphylococcus aureus (S. aureus)?

Staphylococcus aureus is a common bacteria (germ). This bacteria is present on the skin and in the nose of many people. For most healthy people this bacteria does not cause a problem. This bacteria can enter the body and cause infection. The bacteria is most likely to enter the body if:

- There is an open wound in the skin or,
- The person has a suppressed immune system.

S. aureus can cause serious infections of skin, blood stream, bone, lung, and other sites.

What is MRSA?

MRSA stands for Methicillin Resistant Staphylococcus Aureus. Methicillin is a type of antibiotic designed to treat S. aureus. Over time some types of S. aureus have become resistant to methicillin. S. aureus that are resistant to methicillin are also resistant to several related antibiotics commonly used for treatment of S. aureus. Another type of antibiotic will need to be used to treat the S. aureus. MRSA has become increasingly common. MRSA was initially found mostly in hospitals, but now is also found in the community. MRSA is more difficult to treat than other S. aureus, because of its resistance to antibiotics.

What is the difference between colonization and infection?

Colonization means the MRSA is present in or on the body but is not causing illness. Healthy people may carry the bacteria causing MRSA without becoming ill. Infection means the MRSA is present in or on the body and is causing illness. Symptoms of MRSA may vary depending on the part of the body that is infected. Infection can commonly occur in the skin, but can also occur in any organ in the body.

How is MRSA diagnosed?

A culture of the suspected infected areas may be sent to the lab to identify the bacteria and test for

effective antibiotics. When the S. aureus is resistant to methicillin, then MRSA is diagnosed.

How is MRSA spread?

MRSA is commonly spread by direct contact. This means MRSA is often spread by the hands. Most hospitals, including National Jewish Health, take special precautions (Contact Precautions) to prevent the spread of MRSA from one patient to the next.

How is MRSA treated?

Since MRSA is resistant to many antibiotics used to treat S. aureus, other antibiotics must be used. These may include oral or intravenous antibiotics. Even when the infection is treated MRSA is often still present on the skin or in the nose. This is why isolation is required during future hospital stays.

What can be done to prevent or control the spread MRSA at National Jewish Health?

When you visit National Jewish Health let the health care providers know if you/your child has MRSA. Standard precautions are taken to prevent the spread of MRSA at National Jewish Health. Standard precautions means you/your child will follow these guidelines:

- You/your child will be in a private room during the stay at National Jewish Health. Movement outside the room is limited.
- Special cleanser is available in the room for hand washing. Hand washing is recommended before leaving the room.
- A gown and gloves are worn by people who enter you/your child's room if contact with body fluids is suspected. These are removed before leaving the room.
- A mask may need to be worn also, if you/your child has an uncontrolled cough. In this case, a mask will need to be worn by you/your child when you leave the room.

These measures will help prevent the spread of MRSA. Remember, preventing the spread of MRSA is important, because MRSA can cause serious infections and can be difficult to treat.

What is good hand washing?

Although hand washing seems simple, make sure the hand washing is effective to prevent the spread of MRSA. Use alcohol-based hand sanitizer over the entire surface of your hands until dry, or use liquid soap and scrub your hands using plenty of lather for 10-15 seconds. Rinse your hands and dry them completely.

What do visitors/family members need to know while at National Jewish Health?

In general, healthy people are at low risk for getting infected with MRSA. Good hand washing is recommended for family and visitors before leaving the room of a person infected with MRSA. Visitors who do not live with a patient hospitalized with MRSA will be asked to wear a gown and gloves when

entering the room.

What precautions should family members take for infected persons at home?

Again, healthy people are at low risk for getting infected with MRSA. In the home, follow these guidelines: Caregivers should wash their hands with soap and water after contact with the infected person before leaving home.

- Towels used for drying hands should be used only once.
- Disposable gloves should be worn if contact with body fluids is suspected.
- Linens should be changed and washed routinely, especially if they are soiled.
- Let each health care provider know the patient is colonized/infected with MRSA.

What precautions should be taken in the school/day care setting?

The Colorado Department of Public Health and Environment and the MRSA in School/Childcare Setting Working Group developed guidelines in 2003. These are available on the CDPHE website www.cdphe.state.co.us If you live in a different state, you may also want to check with your state health department or school district. Remember, preventing the spread of MRSA is important, because MRSA can be difficult to treat.

Visit our website for more information about support groups, clinical trials and lifestyle information.

National Jewish Health is the leading respiratory hospital in the nation. Founded 119 years ago as a nonprofit hospital, National Jewish Health today is the only facility in the world dedicated exclusively to groundbreaking medical research and treatment of patients with respiratory, cardiac, immune and related disorders. Patients and families come to National Jewish Health from around the world to receive cutting-edge, comprehensive, coordinated care. To learn more, visit njhealth.org.