Methicillin-Resistant Staph Infection

(MRSA; Methicillin-Resistant Staphylococcus aureus Infection; Infection, Methicillin-Resistant; Methicillin-Resistant Staphylococcus aureus Community-Acquired MRSA; CA-MRSA; Methicillin-Resistant Staphylococcus aureus Nosocomial MRSA; Healthcare-Associated MRSA; HA-MRSA)

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En Español (Spanish Version)

Definition

An MRSA infection is a bacterial infection caused by the bacterium Staphylococcus aureus. The bacteria can affect the skin, blood, bones, or lungs. A person can either be infected or colonized with MRSA. When a person is infected, the bacteria produce symptoms. A person colonized also has the bacteria, but it may not cause any symptoms. A MRSA infection is serious because the bacteria are resistant to many common antibiotics that are used to treat infections.

There are two types of MRSA infection: community-acquired and nosocomial. People who have community-acquired MRSA infection were infected outside of a hospital setting (eg, dormitory). While nosocomial MRSA infection occurs in a healthcare setting (eg, hospital, clinic).

Causes

An MRSA infection can spread through several mechanisms:

- Contaminated surfaces
- Person-to-person
- From one area of the body to another

Risk Factors

The following factors increase your chance of infection. If you have any of these risk factors, tell your doctor:

- Community-acquired
  - Impaired immunity
  - Sharing crowded spaces (eg, dormitories, locker room, etc.)
  - Using intravenous drugs
  - Serious illness
  - Being a young child, athlete, prisoner, or military personnel
  - Exposure to animals (eg, pet owner, veterinarian, pig farmer)
  - Using antibiotics
  - Chronic skin disorder
  - Being infected with MRSA in the past
- Nosocomial (healthcare-associated)
  - Impaired immunity
  - Exposure to hospital or clinical settings
  - Advanced age
  - Male
  - Chronic illness
• Using antibiotics
• Having a wound
• Living in a long-term care center
• Having an indwelling medical device (eg, feeding tube, intravenous catheter)

Symptoms

If you experience any of these symptoms, do not assume it is attributed to an MRSA infection. These symptoms may be caused by other, less serious health conditions. If you experience any one of them, see your doctor.

• Folliculitis— infection of hair follicles
• Boils—a skin infection that may drain pus, blood, or an amber-colored liquid
• Scalded skin syndrome—a skin infection characterized by a fever, rash, and sometimes blisters
• Impetigo—large blisters on the skin
• Toxic shock syndrome—a rare but serious bacterial infection
  • Two of its primary symptoms are a rash and high fever.
• Cellulitis—a skin infection characterized by a swollen, red area that spreads quickly
• Abscess

Infected Hair Follicle—Folliculitis

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Diagnosis

Your doctor will ask about your symptoms and medical history, and perform a physical exam. Tests may include the following:

• Wound cultures
• Blood tests
• Urine tests
• Skin biopsy—removal of a sample of skin to test for infection

Treatment
Talk with your doctor about the best treatment plan for you. Treatment options include the following:

**Medications**

Antibiotics are given to kill the bacteria. Only a few antibiotics are available that can treat a MRSA infection.

**Incision and Drainage of an Abscess**

Your doctor may open the abscess and allow the fluid to drain. Do not attempt to do this one your own.

**Cleansing of the Skin**

Do the following to treat the infection and to keep it from spreading:

1. Wash your skin with an antibacterial cleanser.
2. Cover your skin with a sterile dressing.

**Decolonization**

Decolonization is a process to help rid your body of the MRSA infection. This process may involve using nasal ointments, washing with special soap, and taking medicines (including antibiotics). Decolonization is only recommended in certain cases.

**Prevention**

To help reduce your chance of getting an MRSA infection, take the following steps:

- Thoroughly wash your hands with soap and water.
- Keep cuts and wounds clean and covered until healed.
- Avoid contact with other people’s wounds and materials contaminated by wounds.
- If you are hospitalized, visitors and healthcare workers may be required to wear special clothing and gloves. This will help to prevent spreading the infection to others.

**RESOURCES:**

Centers for Disease Control and Prevention
http://www.cdc.gov/

National Institute of Allergy and Infectious Diseases
http://www3.niaid.nih.gov/

**CANADIAN RESOURCES:**

Health Canada
http://www.hc-sc.gc.ca/index_e.html/

Public Health Agency of Canada
http://www.phac-aspc.gc.ca/

**REFERENCES:**
