Staphylococcus aureus (S. aureus) is a bacterium that can be found in the nasal cavity and on the skin of some healthy people. These healthy individuals carry the bacteria without signs or symptoms of infection. Yet, the bacteria may sometimes cause diseases such as infection of skin, wound, urinary tract, lung, bloodstream and food poisoning.

Most S. aureus infections can be treated by antibiotics effectively. However, methicillin-resistant S. aureus (MRSA) is a strain of S. aureus that is resistant to antibiotics including methicillin and other commonly used antibiotics such as oxacillin, penicillin, amoxicillin and cephalosporins. Improper use of antibiotics is widely recognised as a contributing factor to antibiotic resistance.

Most MRSA infections occur in people who have been hospitalised, live in residential care homes or have received treatment in health care settings such as dialysis centres.

What is ‘Community-associated MRSA (CA-MRSA)’ infection?

Sometimes, infections due to MRSA may occur in community-dwelling individuals who have not been hospitalised, stayed in residential care homes, or received medical procedures within a year prior to symptom onset. These are known as community-associated MRSA (CA-MRSA) infections.

Clinical features

MRSA usually causes skin and soft tissue infections such as pimples, boils, abscesses or wound infections. The infected area may be red, swollen and painful or it may produce pus. Sometimes, more serious sequelae such as bloodstream infections, lung infections or necrotising fasciitis may occur.

Mode of transmission

The main mode of transmission of MRSA infections is through direct contact with wounds, discharge and soiled areas. Other risk factors include close contact, breaks in the skin due to wounds or indwelling catheters, poor personal hygiene and living in crowded conditions.

Management

Individuals with wound infection should seek advice from healthcare professional quickly so that the infection can be properly diagnosed and effectively treated. Boils or abscesses may require incision and drainage while antibiotics may be prescribed if indicated.

Prevention

Maintain personal hygiene

Wash hands with liquid soap and water thoroughly when they are visibly soiled or likely dirtied by body fluid. When hands are not visibly soiled, clean them with 70 - 80% alcohol-based handrub as an effective alternative.

Wear gloves when handling soiled objects, and wash hands thoroughly afterwards.

Avoid sharing personal items such as towels, clothing or uniforms, razors or nail-clippers.

Proper wound management

Avoid direct contact with wounds or objects soiled by wound discharge.

Clean broken skin immediately and cover properly with waterproof adhesive dressings. Wash hands before and after touching wounds. Consult doctor promptly if symptoms of infection develop.

Avoid contact sports or visiting public bathrooms if you have an open wound.

Safe use of antibiotics

Only take antibiotics prescribed by your doctor.

Follow advice given by your doctor when taking antibiotics.

Enhance personal hygiene while you are taking antibiotics to protect yourself and to prevent the spread of bacteria:

- Keep hands clean.
- Eat only well-cooked food. Drink only boiled water.
- Disinfect and cover all wounds.
- Wear surgical mask if you have respiratory symptoms like cough, sneeze, runny nose and sore throat.
- Young children having symptoms of infection should minimise contact with other children.
- Never share your antibiotics with others.

Maintain environmental hygiene

Keep the environment clean; disinfect reusable items in public places such as sports centres and public bathrooms regularly.

Measures that aim to prevent MRSA infection apply well to CA-MRSA infection. For prevention of the latter infection, it is important to keep the home clean and free of dust. Frequently-touched surfaces (e.g. toilet seat, bathroom), children’s toys and bed linens should be washed, cleaned and disinfected (with diluted household bleach) regularly.

MRSA Infection

CA-MRSA Infection

Centre for Health Protection Website

www.chp.gov.hk

24-Hour Health Education Hotline

of the Department of Health

2833 0111

Revised in May 2017