



Methicillin Resistant *Staphylococcus aureus* (MRSA)

August 2008

What is *Staphylococcus aureus* and MRSA?

Everybody has a variety of bacteria (germs) on their skin. About half the adult population carry (either on their skin or in their nose or mouth) bacteria called *Staphylococcus aureus* (often referred to as 'staph' or 'golden staph'). There are many different strains (types) of *S. aureus* and most of the time it lives and multiplies on the body without causing any problems. However, under some circumstances, it can get inside the body through broken skin and cause infection that requires treatment with antibiotics.

Some strains of *S. aureus* are difficult to treat as they have become resistant to commonly used antibiotics. (This means the antibiotics are no longer effective). When this occurs it is described as **Methicillin Resistant *Staphylococcus aureus* (MRSA)**.

MRSA is not usually a problem for healthy people and those with MRSA do not look or feel different from anyone else. However, like all strains of *S. aureus*, MRSA can cause infection if it gets into the body. This can occur when you scratch or cut your skin, have a wound or if you have undergone surgery or have had invasive procedures performed in hospital. MRSA infections are often more difficult to treat due to the reduced number of antibiotics available.

MRSA is a **notifiable disease** under the WA Health Act which means when a laboratory identifies MRSA it must be reported to the Department of Health (DoH). The DoH closely monitors the number of MRSA cases occurring in WA.

How is MRSA spread?

MRSA is usually spread from **person to person through direct contact** with a person who is infected or is carrying MRSA harmlessly on their skin or in their nose (colonised). This can occur when people have any form of close skin to skin contact. It may also spread by having contact with shared items (sharing towels) or from touching surfaces that are contaminated with MRSA. It is not usually spread through the air. Most people do not suffer any consequences if they pick up MRSA on their skin.

What are the signs and symptoms of MRSA Infection?

There is no specific 'MRSA disease' like with influenza or chickenpox. All strains of *S. aureus* can infect a range of tissues and body systems including the skin, lungs and bloodstream. The symptoms that develop with MRSA infection are general symptoms that are common to different infections caused by other bacteria. Redness, swelling, pain, heat and the presence of pus are common signs of local skin infection. Some skin infections will develop into more serious infections like boils or deep abscesses. In some cases *S. aureus* can enter the blood stream from either an existing infection (e.g. wound or abscess) or from a medical device (e.g. intravenous catheter or "IV"). Again, symptoms of blood stream infection are not specific to *S. aureus* and can be the same as for other bacteria. Typically, clinical signs and symptoms can include high fever; rigors (shakes) and low blood pressure (shock). This can be a life-threatening illness.

How do I know if I have MRSA?

People colonised with MRSA (carrying it harmlessly on their skin or in their nose) show no signs or symptoms and it is impossible to tell if a person has MRSA by looking at them. If infection is suspected then the Doctor needs to take a swab or specimen of the pus or wound discharge and send it to a laboratory for testing. It can take at least 48 hours for the laboratory to identify the MRSA.



Is there a vaccination against MRSA?

There is **no** vaccination available to prevent you from acquiring *S.aureus* or MRSA.

How is MRSA treated?

MRSA infections are treated with antibiotics. Taking a swab is very important as this directs the Doctor to the **right antibiotics** to use for the infection. Remember that a lot of the 'usual' antibiotics used for treating *S.aureus* infections will not work for MRSA strains.

How can the spread of MRSA be reduced?

If you have an MRSA infection

- Keep wounds, cuts and abrasions clean and covered until they are healed
- Don't share personal items like towels, clothing, soap bars
- Wash your hands often or use an alcohol based hand rub especially following any contact with your infection
- Practice good personal hygiene
- Keep your environment clean

Where did I get my MRSA infection?

MRSA has traditionally not been a problem for healthy people living in the community but was strongly associated with being in hospital. In recent years this picture has changed.

Community Associated Infections: Over the last few years some strains of MRSA have been identified that have been 'imported' into WA from overseas and the eastern states. These strains had not been seen in WA before but are known to spread and cause infection in healthy people living in the community and who have not been in hospital.

Healthcare Associated Infections: MRSA infection, like any other infection, is a **known risk** associated with having any invasive surgery, procedure or device inserted e.g., intravenous or urinary catheters. Hospitals have many strategies in place to reduce the risk of patients getting a 'healthcare associated' infection including MRSA infections. **However, not all healthcare associated infections are preventable and the risk of infection is also dependent on patient characteristics.** Factors that may increase a persons risk include disease such as diabetes or cancer, obesity, smoking and certain drugs which suppress our immune systems e.g. steroids and chemotherapy.

What should I do if I require admission to hospital?

If you have a current or have had an MRSA infection in the past, you should let your Doctor or a staff member at the Hospital know. In WA successful prevention programs to limit the spread of MRSA in hospitals and reduce the risk of patients getting MRSA infections have been in place since the 1980s. Letting your health care provider know your MRSA status will assist them in ensuring they provide the appropriate care for you. This may mean they take some swabs to see if you still have MRSA, they may provide special antiseptic soaps and ointments, ensure appropriate antibiotics are given prior to surgery as a prevention measure or allocate you to a single room. **These 'additional precautions' will not interfere with your planned treatment or the quality of care you receive during your hospitalisation.**

What about family and visitors while I am in Hospital?

It is quite safe for your family and friends to visit you. Visitors should always wash their hands prior to visiting you in hospital and again when they leave. If you find it difficult to locate a hand basin to wash with soap and water, ask a member of staff to provide you with some alcohol based hand rub - this is very effective if your hands are not visibly 'dirty'. **Hand hygiene is the most important strategy to stop MRSA from spreading.**

Where can I find more information on MRSA?

More information on MRSA is available from the Department of Health website at: www.public.health.wa.gov.au/3/332/3/mrsa.pm . You can also speak with your Doctor or ask to speak with the Infection Control Nurse if you are in hospital.

