

Infection Control Guidelines

Methicillin-resistant Staphylococcus aureus (MRSA)



The Royal
Children's
Hospital
Melbourne

Staphylococcus aureus is a gram positive bacteria that is commonly found on skin and in the nose.

A proportion of *Staphylococcus aureus* has developed resistance to beta-lactam antibiotics such as Methicillin and Flucloxacillin - hence the term Methicillin-resistant *S.aureus* (MRSA).

Transmission

MRSA is contact spread through direct and indirect contact on hands and contaminated equipment.

Who is at risk?

- *S.aureus* is an opportunistic organism and is most likely to cause an infection where there is a break in the skin or portal of entry –e.g. surgical incision or urinary catheter or central line *in situ*.
- Methicillin resistance does not make *S.aureus* more infectious or easier to transmit, but it does make it more difficult to treat.
- Approximately 20% to 30% of the population carries *S.aureus* in the nose; however, most people do so without developing an infection.
- Less than 2% are likely to be colonised with MRSA.

Prevention

The spread of these organisms can be restricted by:

- Admitting a patient to a single room or cohorting colonised or infected patients.
- Avoid placing known MRSA positive patients with surgical patients or patients with central lines.
- Strict **hand hygiene**
- **Standard precautions** including meticulous line and catheter management
- Careful **cleaning** of all communal equipment including stethoscopes with soap and water or alcohol towelettes.
- **Correct** handling of waste and linen.

Hand Hygiene

- Decontaminate hands **before leaving** the patient's room, with Microshield soap or Alcohol Gel
- Hands should **always** be decontaminated **after** glove use.
- Hands should be decontaminated again, **immediately after leaving** the patients room in case of recontamination with the door handle.

Personal Protective Equipment (PPE)

- Gowns or plastic aprons **should** be worn when anticipating close patient contact.
- Remove and discard gowns **before** exiting the room.
- A new gown should be used **each** time.

Infection Control Guidelines

Methicillin-resistant Staphylococcus aureus (MRSA)



- Gloves should be used for contact with infectious material and removed and discarded **immediately** after use.

Room stock and equipment cleaning

- **Minimal** stock of non-critical items should be stored in the room - Only take in enough stock for **ONE** shift.
- All equipment **must** be decontaminated with a neutral detergent and water upon leaving the room or an alcohol towlette.
- Any items that are left in the room for prolonged periods should be included in the daily clean of the patients' room.
- Feeding bottles should be rinsed and placed directly into the receptacle for return to the Infant Formula Room.

Linen

- Place all soiled linen **directly** in a linen bag.
- Do not place soiled linen on the floor, counter tops or bedside table.
- Keep soiled linen away from own clothing and clean linen.

Waste

- General waste, i.e. paper towels, should be placed in a black general waste bag.
- Waste that is contaminated with infectious matter or body fluids should be placed into a yellow clinical waste bag.

Family and Visitors

- Visitors need to be aware of the need for strict handwashing after contact with patients.
- However they **do not** need to wear gowns unless their clothes are likely to be soiled.
- Visitors **must** wash their hands before and after leaving the room.
- Items can be removed from the patients room (crocery and cutlery etc), but must be immediately cleaned or placed into dishwasher. Items that cannot be cleaned- magazines etc, must be taken home in a bag or disposed of in the room.
- Room items **must not** be placed on communal shelves in the ward without first being cleaned.

Daily Cleaning of Patient's Room

- The room should be cleaned with warm water and detergent, paying particular attention to all horizontal surfaces, bed rails, door handles, hand basins and taps.
- Cleaning cloths and mop heads used in these rooms should not be used elsewhere and must be laundered after use.

Cleaning on discharge

- Routine terminal cleaning is sufficient for MRSA

Infection Control Guidelines

Methicillin-resistant Staphylococcus aureus (MRSA)



Areas to be included are:

- All horizontal surfaces or fittings
- Walls that may have been contaminated
- Doors
- Door handles/knobs
- Mattress, pillows, bedside lockers, over-bed table
- Bed rails, IV pole
- Bathroom, toilet, shower, hand basins
- Call bell, blinds, telephone, remote control for television
- Monitors, etcetera.
- Rinse with clean water.
- Blinds should be cleaned and curtains and drapes should be changed.
- All re-usable equipment (for example wash bowl, respiratory equipment) should be disinfected in a washer/sanitiser or sterilised prior to re-use for another patient.
- All single use equipment that cannot be cleaned should be discarded.

Transfers

Internal

- Inform receiving wards or departments that the patient is infected or colonised.
- Inform the receiving staff of the precautions required.
- Minimise movement around the hospital as appropriate.

External

- Inform Ambulance service if the patient is infected or colonised.
- Inform any receiving hospitals if the patient is infected or colonised.

Further Information

Multi-Antibiotic Resistant Organisms: http://www.rch.org.au/policy_rch/index.cfm?doc_id=6471

ID Table http://www.wch.org.au/infection_control/infectious/index.cfm?doc_id=926

CDC - <http://www.cdc.gov/mrsa/>

Please contact Infection Control, x55740, for additional information as required.