



Managing MRSA and VRE at Ross Memorial Hospital

Background

MRSA and VRE reporting

Beginning December 30, 2008, hospitals throughout the province began releasing their MRSA and VRE statistics to the public. The Ross Memorial Hospital is posting our number of MRSA and VRE cases and rates on our website. At the same time, the Ministry of Health and Long Term Care posts the numbers and rates for all hospitals on its website. RMH strongly supports the provincial government's public reporting initiative; we believe it will inspire improved performance, enhance patient safety, and strengthen the public's confidence in our hospital.

What is MRSA?

Staphylococcus aureus is a germ that lives on the skin and mucous membranes of healthy people. Occasionally, *Staphylococcus aureus* can cause an infection. When *Staphylococcus aureus* develops resistance to certain antibiotics, it is called Methicillin-Resistant *Staphylococcus Aureus*, or MRSA.

What causes MRSA?

Risk factors for MRSA acquisition include invasive procedures, prior treatment with antibiotics, prolonged hospital stay, stay in an intensive care or burn unit, surgical wound infection and close proximity to a colonized person. MRSA can also be transmitted from mother to child through breast milk.

How does MRSA spread?

MRSA is spread from one person to another by contact, usually on the hands of caregivers. MRSA can be present on a person's hands, either from touching contaminants excreted by the infected person or from touching articles contaminated by the skin of an infected person, such as towels, sheets and wound dressings. MRSA can live on hands and objects in the environment. Mild cases may not require treatment; severe cases may require other antibiotics.

What is VRE?

Enterococci are bacteria that are normally present in the human intestines and in the female genital tract and are often found in the environment. These bacteria can sometimes cause infections. Vancomycin is an antibiotic that is often used to treat infections caused by enterococci. In some instances, enterococci have become resistant to this drug and thus are called vancomycin-resistant enterococci (VRE).

What causes VRE?

Enterococci bacteria in lower intestine and/or possibly other areas (e.g., urine, blood, skin) may cause an infection and resist Vancomycin antibiotic. Risk factors for VRE acquisition include severity of underlying illness, presence of invasive devices, prior colonization with VRE, antibiotic use and length of hospital stay.

How does VRE spread?

The spread of VRE occurs through contact. VRE can survive for hours on hands and can survive for weeks on inanimate objects such as toilet seats, taps, door handles, bedrails, furniture and bedpans. VRE is easy to kill with the proper use of disinfectants and good hand hygiene.

What precautions are taken to prevent the spread of MRSA and VRE?

Special precautions are taken to stop MRSA and VRE from spreading to other patients in the Hospital. These precautions include:

- Single room accommodation
- A long-sleeved gown and gloves must be worn by everyone who cares for the patient
- A sign is placed at the patient's door to remind all who enter about the precautions
- The room and the equipment used in the room are cleaned and disinfected regularly
- Everyone who leaves the patient's room must clean their hands well
- The patient must clean his or her hands before leaving the room

The **patient's family** and **visitors** should not assist other patients with their personal care, as this may cause the germ to spread. They are also required to wear a gown and gloves while in the patient's room. Before leaving the room, visitors must remove the gown and gloves and dispose of them in the garbage container and linen hamper. They must then clean their hands.

Hand hygiene is everyone's responsibility

Good hand washing by everyone (healthcare staff, physicians, patients and visitors) is the single-most effective way to prevent the spread of infectious diseases like MRSA and VRE.

Our Commitment

Public reporting of our infection rates is important because it will allow us to work with a standardized approach across the province. Our commitment to our patients is one of safety and continuous improvement. We monitor our results closely, identifying areas for improvement and implementing strategies to reduce MRSA and VRE in our organization.

What exactly will RMH report?

Beginning December 30th, Ross Memorial will post our quarterly rate and case count of both MRSA and VRE bacteraemia acquired in the Hospital on our website. (Bacteraemia is the presence of bacteria in the bloodstream and is referred to as a bloodstream infection.) The first reporting period will cover the months of September, October and November. At the end of each quarter, the ministry will report the previous quarter's data on its website (www.ontario.ca/patientsafety) by hospital site including:

- the number of new hospital acquired MRSA and/or VRE bacteraemia cases that is zero (0) or totaling five (5) or more associated with that hospital site, or if this is less than 5 cases (i.e. 1 to 4 cases), text reading "< 5 cases", and

- the hospital acquired MRSA and/or VRE bacteraemia rate

How are the rates calculated?

The method of calculation of the MRSA or VRE bacteraemia infection rate for the reporting period (on a quarterly basis) is:

$$\frac{\text{Number of nosocomial patients with laboratory identification of MRSA bacteraemia} \times 1000}{\text{Total number of patient days}}$$

Where the numerator is the total number of newly identified cases for MRSA bacteraemia associated with the reporting facility, for the reporting period. The denominator is the total number of in-patient days for the reporting period. There are no exclusion criteria. The calculation noted above is the same for VRE bacteraemia.

How frequently will hospitals report on MRSA and VRE?

Quarterly. Beginning December 30, 2008, the public can access the Hospital's MRSA and VRE rates from our website, www.rmh.org, and on the Ministry's own website, www.ontario.ca/patientsafety.

Why aren't hospitals reporting monthly, as they do with their *C. difficile* rates?

Hospitals are expected to report their data to the Ministry of Health and Long Term Care on a monthly basis, thereby ensuring that the Ministry has access to data for each month which will be used for future trending reporting on MRSA and VRE bacteraemia, however, the numbers are anticipated to be very low for monthly reporting, so public updates will be made quarterly.

Will outbreaks of MRSA and VRE be reported?

Outbreaks of MRSA and VRE will not be tracked for the purposes of public reporting. This is because the bacteraemia rates are expected to be extremely low for individual facilities. Tracking the bacteraemias is not a useful measure to look for outbreaks. The information being tracked is intended to provide useful information over time for the province as a whole.

How do you know if your hospital's rate is too high?

Public reporting of Ross Memorial's MRSA and/or VRE rates will allow us to establish a baseline from which we can then track our rates over time. That will enable us to identify areas for improvement, and implement strategies to reduce the incidences of these infections in our organization while also working closely with our Public Health Unit and Regional Infection Control Network.

Who can I contact to learn more about MRSA and VRE at RMH?

Ross Memorial's Infection Prevention & Control team can be reached at 705-324-6111

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