MID-WESTERN REGIONAL HOSPITAL COMPLEX

GUIDELINES FOR THE MANAGEMENT OF

VANCOMYCIN RESISTANT ENTEROCOCCUS (VRE)

8.0 BACKGROUND

Enterococci are part of the normal flora of the gut or gastro-intestinal tract. With the use of antibiotics, enterococci are now becoming resistant. This is a matter of concern because of the few antibiotics left to treat patients. VRE can cause serious infection such as septicemia, pneumonia, deep-seated wound infection. Patients most at risk are those who are in acute hospitals and who are particularly debilitated, immunocompromised, or seriously ill, eg patients in intensive care, oncology and renal transplant units. Linezolid (Zyvox) is a relatively new antibiotic which is being used with caution for VRE infections. It is expensive and toxic and prescribed according to hospital policy. When patients recover they may continue to carry VRE.

9.0 GENERAL INFECTION CONTROL MEASURES FOR MANAGING A PATIENT WITH VRE

9.1 Identification

Early identification is important and management is the same as MRSA, except there is no treatment for VRE carriers. Rectal cultures is the screening test. Patients sharing a room with a newly identified positive VRE carrier, should be screen tested.

9.2 Spread of VRE

The same mode of spread as MRSA. VRE can be spread from patient to patient via the hands of staff, contaminated equipment and environmental surfaces. VRE IS DIFFICULT TO ERADICATE FROM HANDS AND THE ENVIRONMENT SO CAREFUL ATTENTION IS NECESSARY IN HANDWASHING, ENVIRONMENTAL CLEANING AND DISINFECTION.
7.4 HOW CAN WE PREVENT MRSA

- Hand washing between attending to patients is the most effective method of preventing the spread of MRSA.

- Early identification of cases and carriers, with appropriate treatment of carrier sites and isolation of cases in the acute hospital setting, will prevent spread.

- Strict Control of antibiotics is essential in hospitals where MRSA is prevalent, as widespread use of both systemic and topical antibiotics predisposes to the emergence of MRSA.

- Early discharge of patients from hospital if medically fit reduces the risk of acquiring MRSA.
9.3 VRE precautions
Extra precautions are necessary to control VRE.
Same precautions as MRSA (Appendix D).

9.4 Outbreaks of VRE
Screening during outbreaks or epidemics is the same as MRSA. When outbreaks of VRE occur, additional precautions are taken. It involves isolation of patients, but may involve closure of units to allow a thorough cleaning and disinfection of the unit, eg walls, ceilings, surfaces, etc.
If cohorted, VRE patients should be nursed separately from non-VRE patients.

9.5 Are staff at risk
Staff who are healthy are not at risk of contracting VRE and it does not pose a risk to family or friends. Like other antibiotic resistance strains, eg MRSA, Clostridium difficile, nursing or caring for VRE patients is not contra-indicated in healthy pregnant staff. HANDWASHING AFTER CONTACT WITH VRE PATIENTS OR THEIR ENVIRONMENT IS EXTREMELY IMPORTANT.

Contact Infection Control Clinical Nurse Manager or Consultant Pathologist/Microbiologist for further information.

9.6 CAN WE PREVENT VRE
- Hand washing between attending to patients is the most effective method of preventing the spread of VRE.
- Early identification of cases and carriers, with appropriate treatment and isolation of cases in the acute hospital setting, will prevent spread.
- Strict Control of antibiotics is essential in hospitals as widespread use of both systemic and topical antibiotics predisposes to the emergence of VRE.
- Early discharge of patients from hospital if medically fit reduces the risk of acquiring VRE.
APPENDIX D

Methicillin-Resistant Staphylococcus Aureus (MRSA) AND Vancomycin Resistant Enterococcus (VRE) Isolation Sheet

Standard precautions are necessary in the care of all patients. However, extra precautions (transmission-based precautions) are necessary in the care of patients with communicable diseases.

MRSA/VRE: Transmission of infection: Contact, airborne routes of spread.

VRE Infectivity: Unknown? Until three consecutive sets of screening cultures are negative. Contact Infection Control Clinical Nurse Manager or Consultant Pathologist/Microbiologist for further information.

Extra precautions involve the following:-

- Single Room necessary until three screening cultures are negative.

- Keep door closed if possible with notice placed outside the isolation room door stating ‘Please report to nurse in charge before entering’.

- Patient education: Isolation precautions must be explained to the patient and relatives and information leaflet given.

- Handwashing. All members of staff must wash their hands with Chlorhexidine antiseptic scrub and dry hands thoroughly after direct contact with the patient and his/her environment. Hands must be washed and dried thoroughly before leaving the isolation room. Once outside the room use alcohol hand rubs if hands have touched the door handles within the isolation room.

- If patients are cohorted hands must be washed and dried in between each patient contact.

- Alcohol hand rubs can be used in between patient contact on physically clean hands.

- Treatment: For treatment of MRSA in the nose, skin or wound refer to 5.0 for Adults and Children over one year and Appendix A for treatment of neonates and infants under one year. Additionally, Appendix E provides a summary of treatment protocols. For further advice contact the Infection Control Clinical Nurse Manager/Consultant Pathologist/Microbiologist or the Occupational Health Physician.

- Personal protective clothing: A risk assessment should be made regarding the type of protective clothing used when caring for patients with MRSA.

- Plastic Aprons: Disposable aprons should be worn for direct contact only with patients and disposed of prior to leaving the room. If patients are cohorted, aprons must be changed between contact with each patient.
♦ Disposable gloves: Gloves must be worn for contact with patients and when in contact with any body fluids. Gloves should be removed and disposed of prior to leaving the room. If patients are cohorted disposable globes should be changed between each patient contact.

♦ Masks: Not necessary unless splash back from body fluids is anticipated (Standard Precautions).

♦ Keep all equipment in the patient’s room/area for his/her sole use (eg stethoscopes and blood pressure devices). All charts should be kept outside the patient’s room. No extra precautions are necessary for the patient’s crockery/cutlery.


♦ Crockery/Cutlery: No extra precautions necessary.

♦ Bedlinen and clothing: Change all bed linen, towels and patient clothing daily following patient cleansing. Bag and send to laundry as per hospital guidelines. 
Environmental daily cleaning: Inform ward cleaning attendants that there is a patient in isolation. All surfaces should be cleaned thoroughly with a detergent.

♦ Terminal cleaning and disinfection: Inform ward-cleaning attendants that there is a patient in isolation. All surfaces should be cleaned with a detergent followed by a chlorine releasing compound e.g. presept 1200 ppm (2.5 gram tablets) = 1 tablet to 1 litre water. Mattress and pillows covers should be washed with detergent and water followed by Presept 1200ppm and rinsed well afterwards.

♦ Disposable cloths must be used for cleaning.
  o Mop heads must be disinfected in a washer disinfector and machine dried.
  o Isolation rooms should be cleaned and disinfected last.

♦ Visitors: The isolation precautions must be explained to all visitors while respecting issues of patient confidentiality. It is unnecessary for visitors to wear protective clothing. Visitors are only required to wash and dry their hands before leaving the room.

♦ Waste: Follow hospital policy with regard to waste management.
APPENDIX G

Information Leaflet for Patients and Relative regarding Vancomycin Resistant Enterococcus (VRE)

INFORMATION FOR PATIENTS/RELATIVES

Information Leaflet for Patients and Relative regarding Vancomycin resistant Enterococcus (VRE)

- VRE is a term used to describe a bacterium (germ). Enterococcus, which no longer responds to commonly used antibiotics.

- Enterococcus is found in the gut of humans and is part of the normal flora. Some patients treated with antibiotics may acquire Vancomycin Resistant Enterococcus (VRE). In most cases this is not a cause for concern. However, it may sometimes cause a problem for people who are very ill in hospital. The bacterium can spread from one person to another, therefore some precautions may be necessary.

- To identify persons who may carry VRE, a specimen of stool or rectal swab is necessary.

- Contact with healthy family and friends does not pose a risk.

- There is no treatment generally required for people. Most people, when they leave hospital or complete a course of antibiotics lose VRE.
References


Midland Health Board (2001) Guidelines for the management of patients with MRSA in acute hospitals.

Global Consensus Conference on Infection Control Issues related to Antimicrobial Resistance (1999), Published by the Infection Control Nurses Association, the Community and Hospital Infection Control Association of Canada and the Association of Professionals in Infection Control and Epidemiology: Toronto, Canada.