Prince Edward Island
CANADA
Health and Wellness

Provincial Vancomycin-Resistant Enterococci (VRE) Guideline

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Glossary of Terms

Antibiotic Resistant Organism (ARO): A microorganism that has developed resistance to the action of several antimicrobial agents and that is of special clinical or epidemiological significance.

Bacteremia: The presence of bacteria in the bloodstream.

Client/patient/resident: Any person receiving health care within a health care setting and for the purpose of this document will be referred to as a **patient.**

Cohorting: The sharing of a room or ward by two or more patients who are either colonized or infected with the same microorganism.

Colonization: The presence and growth of a microorganism in or on a body with growth and multiplication but without tissue invasion or cellular injury. The patient will be asymptomatic.

Contact: An individual who is exposed to a person colonized or infected with an antibiotic resistant microorganism in a manner that allows transmission to occur (e.g., roommate).

Contact Precautions: A type of **Additional Precautions** (also known as Transmission Based Precautions in the USA) to reduce the risk of transmitting infectious agents via contact with an infectious person. Contact Precautions are used in addition to Routine Practices.

Contamination: The presence of an infectious agent on body surfaces, clothes, gowns, gloves, bedding, toys, surgical instruments, dressings or other inanimate objects.

Decolonization: The use of topical and/or systemic antimicrobials to eradicate colonization of resistant bacteria.

Direct Care (Home Care, Ambulatory Clinics, and LTC): Providing hands-on patient care, such as bathing, washing, turning, changing clothes/diapers, dressing changes, care of open wounds/lesions or toileting. Feeding and pushing a wheelchair are not classified as direct care.

Endemic: The constant presence of a disease or infectious agent within a certain area.

Enterococci: Facultative anaerobic Gram-positive coccoid bacteria that live in the gastrointestinal tract of most individuals and can also be present in the anterior urethra, vagina, skin, oropharynx and/or bile. Enterococci may also colonize wounds, ulcers and medical device sites in hospitalized patients, and is a common cause of health care associated infection.

Hand Hygiene: A process for the removal of visible soil and removal or killing of transient microorganisms from the hands. Hand hygiene may be accomplished using soap and running water (for removal of visible soil) or the use of an alcohol-based hand rub (when hands are not visibly soiled). Optimal strength of alcohol-based hand rubs is 60% to 90% alcohol.

Hospital-grade Disinfectant: A disinfectant that has a drug identification number (DIN) from Health Canada indicating its approval for use in Canadian hospitals.

Infection: The entry and multiplication of an infectious agent in the tissues of the host.

- Asymptomatic or subclinical infection is an infectious process running a course similar to that of clinical disease but below the threshold of clinical symptoms.
- Symptomatic or clinical infection is one resulting in clinical signs and symptoms (disease).

Outbreak: For the purposes of this document, an outbreak is an increase in the number of cases (colonizations or infections) above the number normally occurring in a particular health care setting over a defined period of time.

Personal Protective Equipment (PPE): Clothing or equipment worn for protection against hazards.

Precautions: Interventions to reduce the risk of transmission of microorganisms (e.g., patient-to-patient, patient-to-staff, staff-to-patient, contact with the environment, contact with contaminated equipment).

Prevalence Screen: Screening all patients in a defined area (e.g., on a specific unit) at a specific point in time to determine how many are colonized and infected with a specific microorganism.

Reservoir: Any person, animal or environmental surface in which an infectious agent survives or multiplies, posing a risk for infection.

Routine Practices: (Also known as **Standard Precautions** in the USA) The system of infection prevention and control practices to be used with all patients during all care to prevent and control transmission of microorganisms in health care settings.

Surveillance: The systematic ongoing collection, collation and analysis of data with timely dissemination of information to those who require it in order to take action.

Vancomycin-resistant enterococci (VRE): Strains of Enterococcus faecium and Enterococcus faecalis that have become resistant to the antibiotic vancomycin.

Infection Prevention and Control on PEI

1. Purpose

The purpose of this guideline is to provide direction for health care workers on the management of patients who are colonized or infected with VRE (vancomycin-resistant enterococci), thereby reducing the risk of VRE transmission to other patients. The goal is to provide consistent information for all health care settings in PEI**,** recognizing that each facility/practice setting delivers a specific set of services and has unique challenges with physical layout and resources. Site specific policy and procedures are necessary to address these unique challenges in each practice area.

2. Background

Rates of transmission of VRE can be controlled by sound infection prevention and control practices in all health care settings. Interventions that focus on preventing cross-transmission, such as routine practices, have a great impact in controlling VRE.

Infection prevention and control programs that emphasize early identification of colonized patients through active surveillance cultures, and the use of additional precautions for preventing transmission, reduce the prevalence and incidence of both colonization and infection, improve patient outcomes, and reduce health care costs.

3. Introduction

What are Enterococci?

Entrococci are facultative anaerobic Gram-positive coccoid bacteria that live in the gastrointestinal tract of most individuals and can also be present in the anterior urethra, vagina, skin, oropharynx and/or bile. Enterococci may also colonize wounds, ulcers and medical device sites in patients, and is a common cause of health care-associated infection.

What are VRE?

Vancomycin-resistant enterococci (VRE) are strains of *Enterococcus faecium* and *Enterococcus faecalis* that have become resistant to the antibiotic vancomycin. The majority of individuals who have VRE are colonized. These organisms do not generally appear to be more virulent than sensitive strains but because of their resistance patterns, are more difficult to treat if infection occurs.

How are VRE spread?

The single most important mode of transmission of VRE in a health care setting is via transiently colonized hands of the health care workers who acquire it from contact with colonized or infected patients or after handling contaminated material or equipment. The unrecognized colonized patient presents a particular risk for transmission to other patients.

The number of colonized patients (“colonization pressure”) will also influence the likelihood of acquiring VRE.

How is VRE acquired and transmitted?

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. Hospitalized patients with gastrointestinal carriage of VRE are the major reservoir.

VRE transmission via environmental sources includes:

- Most items in the health care environment including blood pressure cuffs, electronic thermometers, monitoring devices, stethoscopes, call bells and bed rails, commodes, electronic charting devices, lifts, telephones, TV's, remote controls, etc.
- **Contamination of the environment with VRE is more likely when a patient has diarrhea.**

4. Admission screening

Screening for VRE is conducted to identify both colonized and infected patients in order to prevent and control the spread of VRE to others.

The protocol for VRE admission screening in health care sites across PEI involves a screening tool (Appendix A) where questions are asked of the patient to determine overall risk. A culture is taken when indicated, based on the assessed risk, and a plan of care is made for the patient. This plan would include the application of contact precautions if warranted.

The following are known risk factors when screening patients for VRE:

- Admission to any health care facility in the past 2 years including facilities outside of Canada.

Consider isolating until culture results are received if:

- Diagnosis of VRE in the past year
- Transfer from a unit/facility with an active outbreak of VRE
- Transfer from out of province where VRE is endemic*

The results of the screening tool determine if screening cultures are required. The screening culture is taken from the rectum or a stool sample. If the patient has a colostomy, the specimen for VRE should be taken from this site. (Appendix B)

*endemic - the constant presence of a disease or infectious agent within a certain area.

5. Infection Prevention and Control Measures

- Routine practices should be done for every patient regardless of disease status. (Appendix C)
- Additional precautions (Contact) or bedside/modified additional precautions are applied in addition to routine practices (Appendix D - Acute Care precautions Full Contact Precautions), (Appendix E - LTC Bedside Contact Precautions), (Appendix F - Modified Contact Precautions for Home Care)
- Single room isolation or placement with a low risk patient.
- Environmental cleaning (Appendix H, H1)

Hand hygiene - proper hand hygiene is the single most effective measure for decreasing transmission of VRE in all practice settings. (Appendix F)

Any breach of the above infection control measures may result in the transmission of the organism to other patients or health care workers who may then become the source of colonization or infection to others. Periodic evaluation of infection prevention and control practices in all health care sites should be done.

Table 5.1 Precautions for VRE - Quick Reference

Precautions for VRE	Hand Hygiene	Gloves	Gown	Mask (surgical)	Patient Placement	Patient Care Equipment	Cleaning *appropriate hospital-grade disinfectant at proper concentration for recommended contact time*	Laundry	Garbage	Room Set-up	Patient Transport	Dietary
Acute Care	Before and after contact with patient or patient's environment, before aseptic procedure, after body fluid exposure - 4 moments of Hand Hygiene	When entering room	When entering room	Not required for VRE. If patient has a productive cough, then follow routine practices.	Single room preferred. Consult infection control if alternate arrangements need to be made.	- Dedicate use of equipment for the patient when possible. - If it is not dedicated, clean and disinfect equipment before and after use on another patient. - When possible use single use items and discard after use. - Minimize supplies in room as these supplies will be discarded upon patient discharge.	Daily cleaning and frequently touched areas twice daily. (See section 9 of the guideline for details)	- Deposit laundry into hamper (avoid touching outside areas with dirty laundry). - Laundry may be picked up in the usual manner and treated as all other laundry. - Gloves should be worn and hand hygiene performed.	- Double bagging not required - All bagged and tied waste from an isolation room is placed directly into the dirty utility room and treated as all other waste in accordance with the PEI waste management protocol.	*Inside room* - Laundry hamper - Waste can - Signage *Outside room* - Supplies and PPE - Hand hygiene supplies - Signage - Waste can	- Notify area receiving patient of precautions. - Open wounds/lesions must be covered with a dry, intact bandage. - Clean blanket and a clean gown for patient. - Patient must perform hand hygiene.	- Disposable dishes not required. - Trays will be treated as normal and placed on the cart to be brought to kitchen. - If tray staying in designated area (e.g., kitchenette) on the unit, tray must be placed into a bag.
Long Term Care	Before and after contact with patient or patient's environment, before aseptic procedure, after body fluid exposure - 4 moments of Hand Hygiene	When doing direct patient care	When doing direct patient care	Not required for VRE. If patient has a productive cough, then follow routine practices.	Single room preferred. In consultation with infection control may: → Place 2 low risk VRE (+) patients in one room → Place one low risk* VRE (+) and a low risk*(-) patient in one room.	- Dedicate use of equipment for the patient when possible. - If it is not dedicated, clean and disinfect equipment before and after use on anther patient. - When possible use single use items and discard after use. - Minimize supplies in room to reduce potential for cross contamination. Any excess supplies will be discarded upon patient discharge.	Daily cleaning and frequently touched areas twice daily.	- Deposit laundry into hamper (avoid touching outside areas with dirty laundry). - Laundry may be picked up in the usual manner and treated as all other laundry. - Gloves should be worn and hand hygiene performed.	- Double bagging not required. - All bagged and tied waste from the patient's room is placed directly into the dirty utility room or designated waste area and be treated as all other waste in accordance with the PEI waste management protocol.	*Inside patient care area:* - Laundry hamper - Waste can - Signage *Outside room* - Supplies and PPE - Hand hygiene supplies - Signage - Waste can (if using masks)	- Notify area receiving patient of precautions. - Open wounds/lesions must be covered with a dry, intact bandage. - Patient must perform hand hygiene.	- Disposable dishes not required. - Trays will be treated as normal and placed on the cart to be brought to kitchen. - If tray staying in designated area (e.g., kitchenette) on the unit, tray must be placed into a bag.
Community Care Programs	Before and after contact with patient and patient's environment, before aseptic procedure, after body fluid exposure - 4 moments of Hand Hygiene	When at risk of contact with body fluids or mucus membranes (As per routine practices)	When at risk of clothing becoming contaminated (As per routine practices).	Not required for VRE. If patient has a productive cough, then follow routine practices.	Risk assessment to be done, looking at patient's hygiene, ability to perform hand hygiene, and cognitive status.	Clean and disinfect all shared equipment between clients.	Frequently touched surfaces should be cleaned regularly.	Laundry can be cleaned in normal manner.	Garbage to be treated as normal as per PEI waste management protocol.	- No special room set up required for Community Care Facilities. **Ambulatory Clinics / Home Care** PPE is available to the worker prior to approaching patient (when required) and ability to dispose of PPE and perform hand hygiene within close proximity to treatment area is available.	- Notify area receiving patient of precautions. - Open lesions and wounds must be covered with a dry, intact bandage. - Patient must perform hand hygiene.	- Patient cleans hands prior to eating. - Dishes may be treated in the usual manner.

*__Low risk room mates__ - in consultation with infection control, a low risk room mate is someone with:

- no or minimal indwelling devices
- no wounds
- be immunocompetent
- be cognitively able to follow instructions for hand hygiene and environmental precautions

Alternatively, hand hygiene routines can be implemented by staff if the patients are unable to follow instructions. Those patients who are not mobile and meet the above criteria are considered low risk.

6. Flagging Charts for VRE

In acute care, it has been shown that flagging a patient record for VRE provides an early alert to health care workers. It is an effective method to quickly identify patients when they present to a health care site so that proper precautions can be put into practice. The infection prevention and control practitioner(s) (ICP) in the health care settings on PEI have the responsibility to determine flagging and unflagging the charts of patients with VRE.

In acute care in PEI, the CIS system is the electronic record in place. An alert for VRE is placed on the patient's electronic chart for a minimum of 2 years. After 2 years, removal of the alert will be reviewed by the infection control practitioner/team, and a decision made based on the clinical condition of the patient and an adequate history of consecutive negative cultures.

Non-acute practice areas can identify the most effective flagging method for patients with VRE. These methods may include flagging the kardex or paper chart. Patient confidentiality must be maintained when determining the best way to flag a chart.

7. Ongoing Culturing for VRE (+) Patients

The need for ongoing swabbing for VRE (+) patients is dependent on the patient population and practice setting. There is little information addressing the issue of when a patient is considered to be at low risk for transmission of VRE. Most guidelines recommend a minimum of three sets of negative specimens taken at least one week apart before considering an individual to be cleared. **It must be recognized that recolonization can occur at any time.**

Acute Care

Re-swabbing and isolation will be done while in the facility with direction from the ICP.

Long Term Care

Re-swabbing may be done Q6 months for ongoing positive patients. If one result is negative, continue swabbing Q week x3. If 3 negative swabs are obtained and the patient does not have other risk factors such as open wounds, then the patient may be removed from precautions.

Community Care Programs

Re-testing patients who are VRE (+) is not necessary in community care programs/sites. Health care workers should continue routine practices when considering precautions.

8. Decolonization

VRE decolonization is not recommended.

9. Environmental Cleaning

VRE has been isolated from various health care surfaces including door handles, hydrotherapy tubs, gowns and linens, hospital furnishings, patient charts, tourniquets, call bells, telephones, computer key boards, faucets and medical equipment such as glucose meters, blood pressure cuffs, electronic thermometers, and intravenous fluid pumps. Meticulous cleaning of cracks and crevices on equipment and surfaces is required.

Widespread contamination of VRE is likely to occur in the rooms of patients who have diarrhea and VRE may survive on surfaces for days or weeks. Environmental strains have been found to be the same as those strains responsible for colonization and infection. There is sufficient evidence to suggest that the environment can act as a reservoir for infection.

Environmental Control / Housekeeping

- Procedures should be established in each facility for routine care, cleaning and appropriate disinfection of patient furniture and environmental surfaces with a hospital grade disinfectant.
- Special attention must be paid to ensure adequate contact time of the disinfectant with the surfaces. Contact times are specific to the product being used. (Per manufacture's recommendations)
- All horizontal and *frequently touched surfaces* (handrails, faucets, overbed tables, doorknobs, etc.) must be cleaned and then disinfected (2 step procedure) with a germicidal agent according to policy for your practice site, and more often if soiled.
- Toilets must be cleaned according to standards – not just when visibly soiled.
- Immediately clean all spills of blood and/or body fluids with a facility-approved disinfectant according to facility approved policy.

Equipment

Responsibility for cleaning must be clearly defined and a schedule for regular cleaning be made. Reusable, non-critical equipment that has been in direct contact with the patient must be cleaned with a facility-approved disinfectant before use on another patient.

- When possible, dedicate equipment specifically for VRE (+) patients.
- If it is not possible to dedicate equipment for each individual, **the equipment must be cleaned and disinfected with an appropriate disinfectant solution or wipe after being used on the patient**. (See manufacturer's instructions)
- Use of PPE (gloves/gowns) is required when cleaning and handling soiled patient care equipment. This is to prevent contamination to the skin and clothing of the person cleaning the equipment.
- Personal care supplies, lotions, creams, soaps, are designated single patient use.
- Anything that cannot be cleaned and disinfected e.g. paper and supplies in patient rooms, are discarded when the patient with VRE is discharged.
- VRE has been found in worn areas and tears in fabric, chipped paint, and other uneven surfaces. Ensure any furniture or equipment in disrepair is repaired or discarded immediately and not shared between patients.

10. Dietary

- The use of disposable dishes is not required. Regular dishwashing cycles will sanitize dishes sufficiently.

In facilities where dietary staff deliver trays:

- Dietary staff can enter rooms of VRE (+) patients wearing a clean pair of gloves, place tray in the room and then remove gloves, and perform hand hygiene
- Dietary staff can pick up trays from a patient's room wearing a clean pair of gloves, bring the tray outside the room, place the tray on the cart and then remove the gloves and dispose of them in the nearest waste can. Perform hand hygiene. **No other activities are to be performed by the dietary staff when in the patient room**. If the patient requires assistance, please notify a nurse.
- Trays being placed in a designated area (e.g., kitchenette) on the unit need to be bagged using two person bagging technique.

11. Movement/Transfer of the Patients

VRE should not be a barrier to good clinical care, therefore transfers within a facility or to another facility should not be delayed or prevented. VRE status should not affect other aspects of care, such as rehabilitation, investigation, or treatment.

The transfer of a patient with VRE should be well planned in advance and effective communication with all involved parties is essential. Communication with non-care providers should be limited to precautions required in order to preserve confidentiality of the patient's diagnosis.

11.1 Acute Care

Transport of the infected or colonized patient should be carefully managed. All staff should ensure the receiving area is aware of the patient's VRE status beforehand so that infection control measures can be implemented. These measures should include:

- Staff in direct contact with the patient should wear gowns and gloves. The gown and gloves must be removed when contact with the patient has finished.
- If the bed is used for transport, frequently touched areas on the bed must be cleaned.
- Where the patient is leaving one area to be admitted to another, they should be transferred on a stretcher or in a wheel chair to a clean bed. The patient's original bed linen should be left behind on the unit for laundering.
- Staff preparing the patient for transfer must change PPE before exiting room to transport patient.
- The stretcher or wheelchair must be thoroughly cleaned and disinfected after use.
- All used linen should be dealt with as dirty linen.

- A clean blanket should be used to cover the patient and a clean johnny shirt/clothing should be worn.
- All draining lesions should be covered with an impermeable dressing prior to transfer.
- Mobilization with care providers is encouraged in consultation with infection control.

11.2 Non-Acute Care

In non-acute care settings, precautions may need to be adapted so that clients/residents can take part in therapeutic and social activities at the same time as limiting physical contact. Staff are to emphasize appropriate hand hygiene for these clients and to those who are interacting with them. Dirty beds and equipment should not be removed from the room until they are thoroughly cleaned and disinfected.

11.3 Transfers to Other Hospitals or Healthcare Facilities

When considering a transfer of any patient with VRE to another facility, discharge planning and communication must begin in time to ensure proper communications and arrangements for the transfer have been made.

It is the responsibility of the transferring team to inform the receiving facility of the patient's VRE status in advance to allow for appropriate placement of the patient.

11.4 Visits to Clinics and Specialist Departments

Notification of the patient's VRE status should be done prior to the appointment so that special arrangements can be made including:

- Patients known to be infected or colonized with VRE should be seen at the end of the working session, last on the list where possible.
- Where possible, staff should contain patient activity to one area. The room should be cleared of surplus equipment e.g., stretchers and mobile equipment.
- Staff providing **direct care*** to the patient should wear gloves and gowns if soiling of clothing is possible. The gown and gloves must be removed when contact with the patient has finished.
- If the patient is being transferred on a stretcher or wheelchair, it must be thoroughly cleaned and disinfected before being used for another patient.
- All equipment and horizontal surfaces that may have become contaminated should be cleaned and disinfected.

*** Direct Care (for Home Care, LTC, Ambulatory Clinics):**
Providing hands-on care, such as bathing, washing, turning patient, changing clothes/diapers, dressing changes, care of open wounds/lesions or toileting. Feeding and pushing a wheelchair are not classified as direct care.

- Any used linen should be treated as dirty linen.
- After contact has finished, staff must clean their hands thoroughly using liquid soap and water or alcohol based hand rub.

12. Deceased patients

Precautions should be continued while care of the remains is completed and the body is placed into the morgue or picked up by the funeral home. The morgue stretcher should be cleaned and disinfected as per protocol.

13. Outbreak protocol

13.1 Confirm that there is an outbreak. Each new case of VRE warrants an investigation. However, an outbreak is considered to be an increase in the number of cases (colonizations or infections) above the number normally occurring in a particular health care setting over a defined period of time.

13.2 Place each positive patient on Contact Precautions as soon as possible after identification of organism.

13.3 Form a multi-disciplinary outbreak management team to review the situation and provide guidance and support. Members of the team should include representatives from the affected unit/ward such as the nurse manager and charge nurse. Other members of this team might include:

- administration
- physician
- infection control practitioner or designate
- environmental services
- employee health and communications may be required as ad hoc members

This team should meet regularly for the duration of the outbreak.

13.4 Establish lines of communication:

Communicate with the patients and their families regarding the reason for Contact Precautions, while maintaining patient confidentiality.

If patients from the affected unit require **transfer**, notify the receiving health care setting or department that the patient is coming from an outbreak unit.

- Maintain communication with local experts.
- Communicate daily with facility leadership and staff as to the progress of the outbreak.
- Determine key spokesperson for the media.
- Inform the laboratory of the outbreak and maintain ongoing communication.

13.5 Identify contacts of each new case :
Obtain surveillance specimens from all patients that are contacts (i.e., roommates) of the source patient as well as others who may be considered "at risk" for transmissions from the outbreak. At risk patients are considered those who have wounds and/or indwelling devices. Cultures should be taken from the rectum and any other high risk sites. Further testing of other patients may be done depending on the initial results from the patient contact swabs.

13.6 Initiate prevalence screening/surveillance:
Consider conducting a prevalence screen/surveillance on the affected floor/unit if additional cases are found after doing contact tracing, particularly if these cases have the same strain as the source patient.
Notify lab regarding the estimated number of swabs to be submitted.
Continue active surveillance on a regular basis until levels are back to baseline.
Active surveillance may include admission, discharge and/or weekly screening cultures.

13.7 Implement staff education:
Conduct in-service education on the affected floor/unit and other departments as necessary.
If the outbreak affects multiple areas of the facility, facility/program-wide education may be required.

13.8 Review environmental cleaning and equipment cleaning practices as well as management and storage of supplies. Routine cleaning may not be adequate to remove some organisms from contaminated surfaces. In situations with persistent transmission, consideration may be given to post-cleaning environmental cultures to document that discharge cleaning of rooms is adequate.

13.9 Review and audit infection prevention and control strategies and practices, such as hand hygiene and environmental cleaning.

13.10 Attempt to identify a source for the outbreak:
Conduct an investigation and review the patient record to attempt to determine the source of the outbreak (e.g., history of care in another health care setting, patient contacts and recent transfer from high-risk units).

The lab will send isolates for molecular typing (one isolate per case) to determine whether cases are epidemiologically linked in consultation with the provincial medical microbiologist.

A detailed investigation should be initiated to detect additional cases and possible links between cases, such as equipment, procedures or common staff assignments. Special attention should be paid to patients who are experiencing diarrhea, due to higher risk of environmental contamination.

If the suspected source is another health care setting, that setting must be informed about the findings.

13.11 Cohorting of patients and staff:
Consult with infection control to determine if cohorting VRE (+) patients is appropriate in the particular outbreak situation. Consideration of this is based on a risk assessment. Consideration should be given to cohorting staff until the outbreak is resolved.

13.12 Consider closing a floor/unit to further admissions or transfers until the outbreak is resolved in consultation with ICP and the outbreak team.

13.13 An outbreak is declared over by the outbreak management team when there is evidence that no further transmission is occurring.

Appendices

Appendix A

Sample VRE Screening Tool
Recommended for use in Acute Care, Long Term Care and Home Care

1. Risk Factors for Screening Antibiotic Resistant Organisms: VRE

   a) Admission to any health care facility in the past 2 years?
   Yes □ If yes, screening cultures are required but contact precautions are not required while awaiting results
   No □

   b) Known to have VRE in the past 2 years?
   Yes □ No □

   c) Admitted to a facility "out of Canada" in the past 2 years?
   Yes □ No □

   d) Transferred from a unit/facility with an active outbreak of VRE?
   Yes □ No □

   e) Transfer from out of province facility where VRE is ***endemic****?
   Yes □ No □

endemic*: The constant presence of a disease or infectious agent within a certain area.

If yes to b,c,d, or e; screening cultures for VRE as well as the application of contact precautions while awaiting screening result are required. (See VRE guideline appendix B for specimen collection instruction)

2. VRE swabs collected? Yes □ No □

Date taken:_____

Appendix B

Specimen Collection Guide

Equipment Required	- Sterile clear transport media swab - Laboratory requisition - Disposable non-sterile gloves
Stool specimen	- stool is the best sample to detect VRE. Due to time constraints and at times difficulty of obtaining a stool sample, rectal swabs are usually collected.
Rectal *(ostomy)*	- Pre moistening swab with transport medium is *not necessary* because it is a moist area - Insert swab into rectum approximately 2-3cm, and rotate while removing - fecal matter on the swab yields best results, but if none present, the swab may still be submitted - Return swab to transport media
Labeling of Specimens	- 2 unique identifiers required e.g., name, PHN # on both the requisition and specimen - Record date and time collected on both requisition and specimen - Record site of collection - One requisition can be used for multiple swabs on the same patient
Transport of Specimen	- Specimen may remain at room temperature - Specimen must reach lab within 24 hours of collection

Appendix C

Routine Practices Table

Hand Hygiene **Hand hygiene is performed using alcohol-based hand rub or soap and water:** • Before and after each patient contact • Before performing invasive procedures • Before preparing, handling, serving or eating food • After care involving body fluids and before moving to another activity • Before putting on and after taking off gloves and PPE • After personal body functions (e.g. blowing one's nose) • Whenever hands come into contact with secretions, excretions, blood and body fluids • After contact with items in the patient's environment
Mask & Eye Protection or Face Shield • Protect eyes, nose and mouth during procedures and care activities likely to generate splashes or sprays of blood, body fluids, secretions or excretions. • Wear within 1 meter of a coughing patient.
Gown • Wear a long-sleeved gown if contamination of uniform or clothing is anticipated.
Gloves • Wear gloves when there is a risk of hand contact with blood, body fluids, secretions, excretions, non-intact skin, mucous membranes or contaminated surfaces or objects. • Wearing gloves is NOT a substitute for hand hygiene. • Perform hand hygiene before and after removing gloves
Environment • All equipment that is being used by more than one patient must be cleaned between patients. • All touched surfaces in the patient's room must be cleaned daily.
Linen & Waste • Handle soiled linen and waste carefully to prevent personal contamination and transfer to other patients.
Sharps Injury Prevention • NEVER RECAP USED NEEDLES. • Place sharps in sharps containers. • Prevent injuries from needles, scalpels and other sharp devices.
Patient Placement/Accommodation • Use a single room for a patient who contaminates the environment when possible. • Perform hand hygiene after leaving the room.

Appendix D

Acute Care Precautions Table
(Contact Precautions in addition to Routine Practices)

Hand Hygiene **Hand hygiene is performed using alcohol-based hand rub or soap and water:** • Before and after each patient contact • Before performing invasive procedures • Before preparing, handling, serving or eating food • After care involving the body fluids of a patient and before moving to another activity • Before putting on and after taking off gloves and other PPE • After personal body functions (e.g., blowing one's nose) • Whenever hands come into contact with secretions, excretions, blood and body fluids • After contact with items in the patient's environment • Whenever there is doubt about the necessity for doing so
Patient Placement • Use a single room with own toileting facilities • Cohorting with other VRE+ patients to be done only in consultation with Infection Control • Door may remain open • Place appropriate precautions signage on the door
Glove • Wear gloves when entering room • Wearing gloves is NOT a substitute for hand hygiene • Perform hand hygiene before and after removing gloves
Gown • Wear a long-sleeved gown when entering room
Masks • As per Routine Practices
Environment • Dedicate routine equipment to the patient (e.g. stethoscopes, commodes) • Disinfect all equipment that comes out of the room • Regular daily cleaning and all frequently touched surfaces in the patient's room must be cleaned BID
Visitors • Visitors must wear gloves and a long-sleeved gown • Visitors must perform hand hygiene before entry and after leaving the room

Appendix E

LTC Precautions Table

(Bedside Contact Precautions in addition to Routine Practices)

Hand hygiene **Hand hygiene is performed using alcohol-based hand rub or soap and water:** • Before and after each client/resident contact • Before performing invasive procedures • Before preparing, handling, serving or eating food • After care involving the body fluids of a client/resident and before moving to another activity • Before putting on and after taking off gloves and other PPE • After personal body functions (e.g., blowing one's nose) • Whenever hands come into contact with secretions, excretions, blood and body fluids • After contact with items in the client/resident's environment • Whenever there is doubt about the necessity for doing so • Clean the client/resident's hands before they leave their room
Client/Resident Placement • Use a single room with own toileting facilities if client/resident hygiene is poor • If single room is not available, resident can be placed with another low risk VRE + patient or other low risk negative patient (in consultation with ICP if available in your facility) • Door may remain open • Place appropriate precautions signage on the door
Gloves • Wear gloves for **direct care*** • Wearing gloves is NOT a substitute for hand hygiene • Perform hand hygiene before and after removing gloves
Gown • Wear a long-sleeved gown for **direct care***
Masks • As per Routine Practices
Environment • Dedicate routine equipment to the client/resident if possible (e.g., stethoscope, commode) • Disinfect all equipment before it is used by another client/resident • All touched surfaces in the client/resident's room must be cleaned at least daily and frequently touched surfaces BID
Visitors • Visitors must wear gloves and a long-sleeved gown if they will be providing **direct care*** • Visitors must perform hand hygiene before entry and after leaving the room
Resident activity • There is no need to restrict the resident's participation in facility activities as long as feces, urine, or purulent discharge can be contained, and adherence to hand hygiene can be managed • Cover open wounds/tracheostomy sites if possible • Ensure that the resident understands appropriate hand washing techniques and supervise hand washing and toilet activities if the resident is not reliable

***Direct Care**: Providing hands-on care, such as bathing, washing, turning patient, changing clothes/diapers, dressing changes, care of open wounds/lesions or toileting. Feeding and pushing a wheelchair are not classified as direct care.

Appendix F

Home Care Precautions Table

(**Modified Contact Precautions in addition to Routine Practices**)

Hand Hygiene **Hand hygiene is performed using alcohol-based hand rub or soap and water:** • Before and after each patient contact • Before performing invasive procedures • Before preparing, handling, serving or eating food • After care involving body fluids and before moving to another activity • Before putting on and after taking off gloves and PPE • After personal body functions (e.g., blowing one's nose) • Whenever hands come into contact with secretions, excretions, blood and body fluids • After contact with items in the patient's environment
Gown • When providing **direct care*** • Wear a long-sleeved gown if contamination of uniform or clothing is anticipated
Gloves • When providing **direct care*** • Wear gloves when there is a risk of hand contact with blood, body fluids, secretions, excretions, non-intact skin, mucous membranes or contaminated surfaces or objects • Wearing gloves is NOT a substitute for hand hygiene • Perform hand hygiene before and after removing gloves
Masks • As per Routine Practices
Equipment • All equipment that is being used by more than one patient must be cleaned between patients
Linen & Waste • Handle soiled linen and waste carefully to prevent personal contamination and transfer of organisms to other patients
Sharps Injury Prevention • NEVER RECAP USED NEEDLES • Place sharps in sharps containers • Prevent injuries from needles, scalpels and other sharp devices

***Direct Care (outpatient clinics and LTC only):** Providing hands-on care, such as bathing, washing, turning patient, changing clothes/diapers, dressing changes, care of open wounds/lesions or toileting. Feeding and pushing a wheelchair are not classified as direct care.

Appendix G

Clinics/Offices Precautions Table
(Modified Contact Precautions in addition to Routine Practices)

Hand Hygiene **Hand hygiene is performed using alcohol-based hand rub or soap and water:** • Before and after each patient contact • Before performing invasive procedures • Before preparing, handling, serving or eating food • After care involving body fluids and before moving to another activity • Before putting on and after taking off gloves and PPE • After personal body functions (e.g., blowing one's nose) • Whenever hands come into contact with secretions, excretions, blood and body fluids • After contact with items in the patient's environment
Gown • When providing **direct care*** • Wear a long-sleeved gown if contamination of uniform or clothing is anticipated
Gloves • When providing **direct care*** • Wear gloves when there is a risk of hand contact with blood, body fluids, secretions, excretions, non-intact skin, mucous membranes or contaminated surfaces or objects • Wearing gloves is NOT a substitute for hand hygiene • Perform hand hygiene before and after removing gloves
Masks • As per Routine Practices
Environment • All equipment that is being used by more than one patient must be cleaned between patients • Clean all touched surfaces in the exam room after the patient leaves
Linen & Waste • Handle soiled linen and waste carefully to prevent personal contamination and transfer of organisms to other patients
Sharps Injury Prevention • NEVER RECAP USED NEEDLES • Place sharps in sharps containers • Prevent injuries from needles, scalpels and other sharp devices
Patient Placement/Accommodation • Limit the time the patient spends in the waiting room • If possible schedule the patient's appointment as the last appointment of the day

***Direct Care (outpatient clinics and LTC only):** Providing hands-on care, such as bathing, washing, turning patient, changing clothes/diapers, dressing changes, care of open wounds/lesions or toileting. Feeding and pushing a wheelchair are not classified as direct care.

Appendix H

Sample checklist for discharge cleaning contaminated with VRE (Terminal Cleaning)

( ) Bag and remove all dirty/used items such as basins, bedpans, urinals, and disposable items
( ) Remove all curtains before starting to clean the room and bag
( ) Discard the following
soap (bar)
toilet paper
alcohol hand rub
sharps container - bag and go to disposal area
( ) Use clean cloths, mop, supplies, and disinfectant solution to clean the room
( ) Fill one bucket with disinfectant at the correct strength, Put anything you can soak into it and leave for at least 5 minutes.
( ) Check to see if the mattress, pillows and chairs are torn. If pillow is torn, discard.
( ) Report damaged items to your supervisor to have them replaced/repaired.
( ) Fill your regular bucket with disinfectant at the correct strength. Use to clean. Never double dip.
( ) Always work from top to bottom
( ) Clean all the following surfaces and allow for the appropriate contact time (at least 5 minutes) with the disinfectant:
mattress
pillow
blood pressure cuff
all bed surfaces including bed rails and controls, under carriage, wheels, head/foot board
call bell
stethoscope
flow meters
suction tube and outer container
pull cords
over bed table
inside drawers
TV controls (pay special attention to buttons)
soap dispenser
door handles
light switches
chairs
phone
toys
electronic games
commodes/raised toilet seats
wheelchairs
monitors
IV poles and pumps
linen hamper

( ) Replace the sharps containers, soap, toilet paper, gloves (if kept in room)
( ) Remove all tape from the surfaces
( ) Remove and bag the lift mesh or sheet between patients to be washed
( ) Remove and bag the resuscitation mask from back of door and discard
( ) Clean bathroom starting at sink and ending with toilet
( ) VRE rooms are to be cleaned once with hot water and disinfectant, allow to dry. All frequently touched surfaces e.g., door knob, TV buttons, bed rails, telephones, taps will then be cleaned a 2nd time.

Checklist for Daily Cleaning

Use a fresh bucket, cloths, and mop head. Always work from the cleanest areas to the dirtiest areas.

( ) Walls - check for visible soiling and clean if required
( ) Clean all horizontal surfaces and "touched" areas with disinfectant (tables, bed rails, call bells, work surfaces, mattresses/covers, doorknobs, sinks, light fixtures, chairs, phone, TV controls, soap dispensers, toys and electronic games).
( ) Clean bathroom, working from sink area to toilet area
( ) Clean floor
( ) Allow to dry and clean flat surfaces again.

Appendix H1

Sample

2nd cleaning Audit (frequently touched surfaces)

QEH Environmental Services Evening Isolation Cleaning Audit

( ) Door handle, outside and inside the room

( ) Light switch at entrance to room

( ) Bed rails and controls, head and foot of bed

( ) Light cord and switch at head of bed

( ) Call Bell

( ) TV remote

( ) All phones at patient bedside

( ) Over bed table

( ) Top of bedside table

( ) Handles of bedside table

( ) Alcohol hand sanitizer and soap dispensers in room

( ) Commode chair

( ) Infusion pumps

( ) Linen hampers

( ) Bathroom:
flush handle
taps
toilet seat

Appendix I

Hand hygiene instruction sheets

I1 - How to hand wash
I2 - How to hand rub
I3 - 4 moments for Hand Hygiene

Appendix I1


How to handwash?
WASH HANDS ONLY WHEN VISIBLY SOILED! OTHERWISE, USE HANDRUB!
Duration of the entire procedure: 40-60 sec.
0
Wet hands with water
1
apply enough soap to cover all hand surfaces.
2
Rub hands palm to palm,
3
right palm over left dorsum with interlaced fingers and vice versa,
4
palm to palm with fingers interlaced,
5
backs of fingers to opposing palms with fingers interlocked,
6
rotational rubbing of left thumb clasped in right palm and vice versa,
7
rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa.
8
Rinse hands with water,
9
dry hands thoroughly with a single use towel,
10
use towel to turn off faucet.
11
Your hands are now safe.
STOP!
clean your hands
ARRÊT!
lavez vos mains
WORLD ALLIANCE for PATIENT SAFETY
World Health Organization
WHO acknowledges the Hôpitaux Universitaires de Genève (HUG), in particular the members of the Infection Control Programme, for their active participation in developing this material.
October 2006, version 1.
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Appendix I2

How to handrub?

RUB HANDS FOR HAND HYGIENE! WASH HANDS ONLY WHEN VISIBLY SOILED!

Duration of the entire procedure: **20-30 sec.**

Apply a palmful of the product in a cupped hand, covering all surfaces.

Rub hands palm to palm,

right palm over left dorsum with interlaced fingers and vice versa,

palm to palm with fingers interlaced,

backs of fingers to opposing palms with fingers interlocked,

rotational rubbing of left thumb clasped in right palm and vice versa,

rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa.

Once dry, your hands are safe.

STOP! clean your hands ARRÊT! lavez vos mains

WORLD ALLIANCE for PATIENT SAFETY

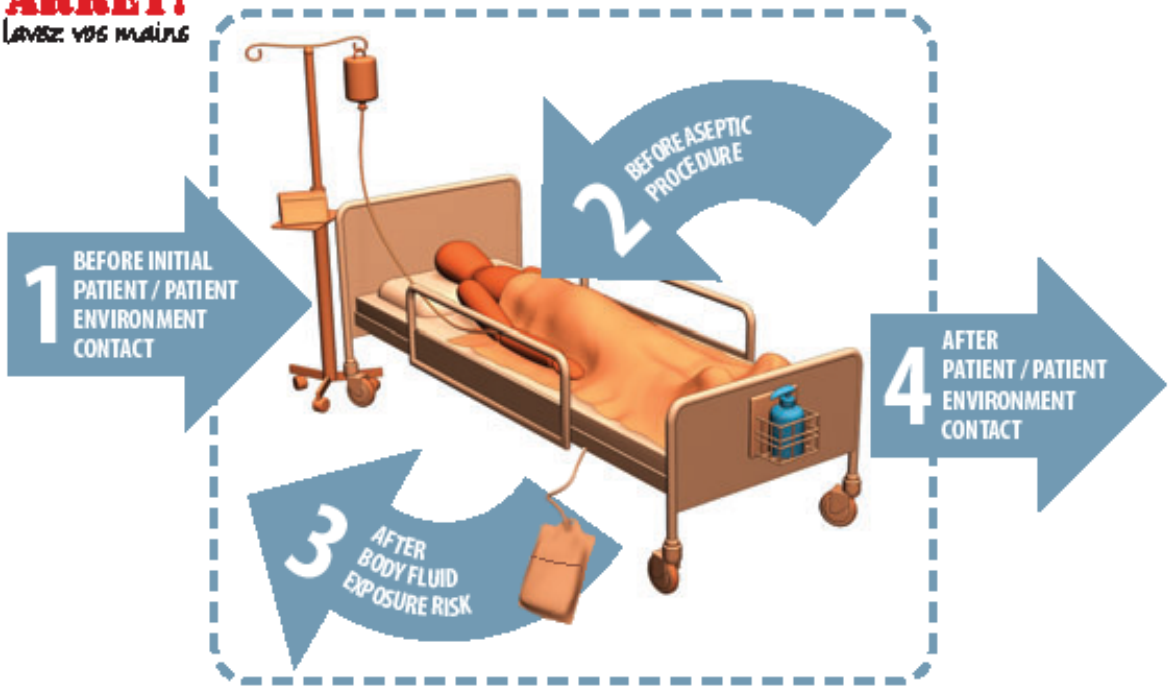
World Health Organization

WHO acknowledges the Hôpitaux Universitaires de Genève (HUG), in particular the members of the Infection Control Programme, for their active participation in developing this material.

October 2006, version 1.

Appendix I3

Your 4 Moments for Hand Hygiene



1	BEFORE initial patient / patient environment contact	**WHEN?** Clean your hands when entering: • before touching patient or • before touching any object or furniture in the patient's environment **WHY?** To protect the patient/patient environment from harmful germs carried on your hands
2	BEFORE aseptic procedure	**WHEN?** Clean your hands immediately before any aseptic procedure **WHY?** To protect the patient against harmful germs, including the patient's own germs, entering his or her body
3	AFTER body fluid exposure risk	**WHEN?** Clean your hands immediately after an exposure risk to body fluids (and after glove removal) **WHY?** To protect yourself and the health care environment from harmful patient germs
4	AFTER patient / patient environment contact	**WHEN?** Clean your hands when leaving: • after touching patient or • after touching any object or furniture in the patient's environment **WHY?** To protect yourself and the health care environment from harmful patient germs

Adapted from WHO poster "Your 5 moments for Hand Hygiene," 2008.

Appendix J

VRE information sheets

J1 - Staff
J2 - Residents and Families in LTC
J3 - Patients in Acute Care
J4 - Public

Appendix J1

Vancomycin Resistant *Enterococci* (VRE) Information Sheet for Staff

What is VRE?
Enterococci are bacteria that live in the gastrointestinal tract of most individuals and generally do not cause harm ("colonization"). Vancomycin-resistant enterococci (VRE) are strains of enterococci that are resistant to the antibiotic vancomycin. If a person has an infection caused by VRE, such as a urinary tract infection or blood infection, it may be more difficult to treat.

How is VRE spread?
VRE is spread from one person to another by contact, usually on the hands of caregivers. VRE can be present on the caregiver's hands either from touching contaminated material excreted by the infected person or from touching articles soiled by feces. VRE can survive well on hands and can survive for weeks on inanimate objects such as toilet seats, door handles, bedrails, furniture, stethoscopes, rectal thermometers and bedpans.

Risk Factors for VRE:
People at risk for colonization or infection with VRE are usually hospitalized and have an underlying medical condition which makes them susceptible to infection. These conditions include patients with:

- Recent hospitalization in health care facilities outside Canada
- Critical illness(es) in intensive care units
- Severe underlying disease or weakened immune systems
- Urinary catheters
- Exposure to (or contact with) a patient with VRE
- Antibiotic use, particularly vancomycin

Good Hand Hygiene Practices:
Remind all staff and visitors to practice good hand hygiene before and after patient contact/care. Health care staff should review the correct method of hand hygiene, as well as demonstrate the proper donning/doffing personal protective equipment (PPE) to patients, families and visitors.

Good hand hygiene practices refer to the use of waterless alcohol hand rub or soap and running water for at least 15 seconds.

Hand hygiene should occur:

- before and after each patient contact
- before performing invasive procedures
- before preparing, handling, serving or eating food
- after care involving the body fluids of a patient and before moving to another activity
- before putting on and after taking off gloves and PPE

- after personal body functions (e.g., blowing one's nose)
- whenever there is doubt about the necessity for doing so
- when hands accidentally come into contact with secretions, excretions, blood and body fluids
- after contact with items in the patient's environment

Prevention and control of VRE:

1. Admission screening for VRE must be completed:
   - Check for previous history of VRE or high risk for VRE using the admission screening tool.
   - If the patient has been a contact of a VRE case in the past, screening specimens must be obtained.
   - If the patient is considered to be at risk for VRE based on the results of the screening tool, screening specimens must be obtained.

2. If the patient is known to have had VRE in the past, **Additional Precautions** must be initiated:
   - Hand hygiene as described in Routine Practices
   - Appropriate patient placement
   - Gloves and long sleeved gown for entering the patient's room or bed space in acute care, or for direct care of residents in long term care
   - Dedicated equipment or adequate cleaning and disinfecting of shared equipment, including transport equipment
   - Daily cleaning and disinfection of all touched surfaces in the room
   - Indepth discharge environmental cleaning protocol is vital for VRE (Appendix H)

3. Notify the infection prevention and control professional or delegate to discuss the infection control management of patient activities.

4. Precautions are not to be discontinued until reviewed by infection prevention and control or delegate.

5. Additional surveillance specimens for colonization or patient contact(s) may be required as directed by infection prevention and control or delegate.

Family and Visitors

1. All families/visitors must practice good hand hygiene before and after leaving the patient's room.

2. In **Acute Care**, visitors are to wear the same PPE as staff when entering the room.

3. Provide written information for patients that explains the precautions required.

Appendix J2

Vancomycin - Resistant *Enterococci* (VRE) Information for Residents and Families in LTC

What is VRE?
Enterococci are common germs that live in the gut, and sometimes genital tract, of most people and do not cause any illness. When vancomycin, a modern antibiotic, cannot kill this germ, it is said to be "resistant". VRE stands for vancomycin-resistant enterococci.

How can VRE spread?
VRE can survive on surfaces like toilet seats, tables and equipment. Diarrhea, poor hygiene and inadequate cleaning are ways in which the germ can spread. Good hand washing and hygiene are the best ways to prevent spreading the germ. It is important for ALL patients, ALL staff and ALL families/visitors to wash their hands.

What does this mean for you?
One of your test results (cultures) shows that you have VRE. Some special precautions may be taken to stop the germ from spreading to other residents who may be prone to developing infection.

What special precautions will be followed in the facility?
- Staff caring for you may wear gloves and a gown.
- It is important for all people entering and leaving your room to clean their hands.
- It is important for you, the resident, to clean your hands frequently, especially when going into public spaces.
- A special instruction sign may be posted to alert staff and visitors.
- Special arrangements may be made in co-operation with your doctor for tests during this time.

What about your family and visitors?
You may have visitors. They may be asked to put on gloves and wear a gown over their clothes if doing direct care."Direct Care" is defined as providing hands-on care, such as bathing, washing, turning the patient, changing clothes/diapers, dressing changes, care of open wounds/lesions, toileting. Feeding and pushing a wheelchair are not classified as direct care.
Gowns and gloves should be removed before visitors leave the room. It is important that visitors clean their hands before they leave the room.
Residents with VRE do not pose a risk to their families or to other healthy people. VRE is a concern for people who are already seriously ill, and are prone to develop infections.

What can you do?
- Wash your hands well and frequently.
- If you are admitted to another health care facility, please tell the doctor or nurse you have VRE.

(adapted from Manitoba Advisory Committee on Infectious Diseases, 1997)

Appendix J3

Vancomycin - Resistant *Enterococci* (VRE) Information for Patients in Acute Care

What is VRE?
Enterococci are common germs that live in the gut, and sometimes genital tract, of most people and do not cause any illness. When vancomycin, a modern antibiotic, cannot kill this germ, it is said to be "resistant". VRE stands for vancomycin-resistant enterococci.

How can VRE spread?
VRE can survive on surfaces like toilet seats, tables and equipment. Diarrhea, poor hygiene and inadequate cleaning are ways in which the germ can spread. Good handwashing and hygiene are the best way to prevent spreading the germ. It is important for ALL patients, ALL staff and ALL families/visitors to clean their hands.

What does this mean for you?
One of your test results (cultures) shows that you have VRE. Some special precautions may be taken to stop the germ from spreading to other sick and weak patients in hospital.

What special precautions will be followed in the facility?
- You will be asked to stay in your room.
- People caring for you will wear gloves and a gown
- It is important for all people entering and leaving your room to clean their hands
- A special instruction card to alert staff and visitors, and a cart with extra supplies, will be placed outside your door.
- Special arrangements may be made in co-operation with your doctor for tests during your stay in the hospital.

What about your family and visitors?
You may have visitors. They will be asked to wear gloves and to wear a gown over their clothes (these are available in the cart outside your door and should be removed before the visitors leave the room). It is important that visitors clean their hands before they leave the room.
Patients with VRE do not pose a risk to their families or to other healthy people. VRE is a concern for people who are already seriously ill and are prone to develop infections.

What can you do?
- Clean your hands well and frequently
- If you are admitted to another health care facility, please tell the doctor or nurse you had VRE.

What will happen at home?
If you have VRE at the time of discharge from hospital, the chance of spreading the germ to your family is small. But, we do recommend you practice the following:
- Everyone who might help you with your personal hygiene or with going to the toilet should clean their hands after contact with you.
- Clean your hands before you make any food and before you eat. This practice should be followed

by everyone in the household.
- Clean your hands well after using the toilet. Make sure others that use the bathroom clean their hands well afterwards.
- Clothing may be laundered in the same manner as the rest of the household laundry.
- No special cleaning of furniture or items (e.g., dishes) in the home is required.
- If you share a bathroom at home, clean the toilet and sink at least weekly with a germicidal cleanser.
- Always tell your physician, paramedics, nurses or other care providers that you have VRE. This helps prevent spread to others.

(adapted from Manitoba Advisory Committee on Infectious Diseases, 1997)

Appendix J4

Vancomycin Resistant *Enterococci* (VRE) Information Sheet for the Public

What is VRE (vancomycin-resistant enterococci)?
Enterococci are bacteria that are normally present in the human intestines and in the female genital tract. They are often found in the environment, as well. These bacteria can sometimes cause infections. Vancomycin is an antibiotic that is often used to treat infections caused by enterococci. In some cases, enterococci have become resistant to vancomycin and are called vancomycin-resistant enterococci or VRE. Most VRE infections occur in people in hospitals.

What types of infections does VRE cause?
VRE can live in the human intestines and female genital tract without causing disease (often called colonization). However, VRE can cause infections of the urinary tract, the bloodstream or of wounds.

Are certain people at risk of getting VRE?
The following persons are at an increased risk of becoming infected with VRE:

- people who have been previously treated with the antibiotic vancomycin or other antibiotics for long periods of time
- people who are hospitalized, particularly when they receive antibiotic treatment for long periods of time
- people with weakened immune systems, such as patients in Intensive Care Units, or in cancer or transplant wards
- people who have undergone surgical procedures, such as abdominal or chest surgery
- people with medical devices that stay in for some time, such as urinary catheters or central intravenous (IV) catheters
- people who are colonized with VRE

What is the treatment for VRE?
People who are colonized (bacteria are present, but have no symptoms of an infection) with VRE do not usually need treatment. Most VRE infections can be treated with antibiotics other than vancomycin. Laboratory testing of the VRE can determine which antibiotics will work. For people who get VRE infections in their bladder, and have urinary catheters, removal of the catheter when it is no longer needed can also help get rid of the infection.

How is VRE spread?
VRE is often passed from person to person by the hands of caregivers. VRE can get onto a caregiver's hands after they have contact with other people with VRE or after contact with contaminated surfaces. VRE can also be spread directly to people after they touch surfaces that are contaminated with VRE. VRE is not usually spread through the air by coughing or sneezing.

How can I prevent the spread of VRE?

If you or someone in your household has VRE, the following are some things you can do to prevent the spread of VRE:

- Keep your hands clean. Always clean your hands thoroughly after using the bathroom and before preparing food. Clean your hands after contact with persons who have VRE. Wash with soap and water (particularly when visibly soiled) or use alcohol-based hand rubs.
- Frequently clean areas of your home, such as your bathroom that may become contaminated with VRE.
- Wear gloves if you may come in contact with body fluids that may contain VRE, such as stool or bandages from infected wounds. Always clean your hands after removing gloves.
- If you have VRE, be sure to tell healthcare providers caring for you that you have VRE so that they are aware of your VRE status. Healthcare facilities use special precautions to help prevent the spread of VRE to others.

(Adapted from CDC's "Information for the Public about VRE" April 2008)

Appendix K

Outbreak Line List Form

Index Case ____________ UNIT

VRE - LINE LISTING FORM

Name	MRN#	Unit #	Date Adm	D/C Date	Facility or Home	VRE Cultures: Taken	VRE Cultures: Results	Comments:
						Taken: Rectum ☐ Date ______ Other ☐ Site ______ Date ______	Results: Pos ☐ Neg ☐ Date ______ Pos ☐ Neg ☐ Date ______	
						Taken: Rectum ☐ Date ______ Other ☐ Site ______ Date ______	Results: Pos ☐ Neg ☐ Date ______ Pos ☐ Neg ☐ Date ______	
						Taken: Rectum ☐ Date ______ Other ☐ Site ______ Date ______	Results: Pos ☐ Neg ☐ Date ______ Pos ☐ Neg ☐ Date ______	
						Taken: Rectum ☐ Date ______ Other ☐ Site ______ Date ______	Results: Pos ☐ Neg ☐ Date ______ Pos ☐ Neg ☐ Date ______	
						Taken: Rectum ☐ Date ______ Other ☐ Site ______ Date ______	Results: Pos ☐ Neg ☐ Date ______ Pos ☐ Neg ☐ Date ______	
						Taken: Rectum ☐ Date ______ Other ☐ Site ______ Date ______	Results: Pos ☐ Neg ☐ Date ______ Pos ☐ Neg ☐ Date ______	

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