POLICY & PROCEDURE NUMBER: 4.12

DEPARTMENT: *Infection Control* **SUBJECT:** *Prevention and Control of Methicillin Resistant Staphylococcus Aureus (MRSA) and Vancomycin Resistant Enterococci (VRE)*

APPROVAL DATE: April 2004 **REVISION DATE:** Dec. 2019, Nov. 2022
REVIEW DATE: November 2018; Dec. 2020

Antibiotic resistant organisms (AROs), such as MRSA and VRE, are a growing problem impacting health outcomes and quality of care across the continuum of care. An effective infection prevention and control program emphasizes the early identification of colonized individuals through active surveillance cultures and the use of both Routine Practices and Additional Precautions for the prevention of transmission of AROs.

PURPOSE:

To prevent and/or control the transmission of MRSA and VRE.

POLICY:

The County of Elgin Homes will implement procedures to prevent and/or minimize the transmission of MRSA and VRE between residents in the facility. This includes the use of Routine Practices at **all** times in the care of **all** residents, as well as Additional Precautions when indicated.
The County of Elgin Homes will manage cases of MRSA and VRE according to the most current best practice recommendations.

ABBREVIATIONS:

ARO	Antibiotic Resistant Organism
MRSA	Methicillin Resistant Staphylococcus aureus
PPE	Personal Protective Equipment
VRE	Vancomycin Resistant Enterococci

DEFINITIONS:

Decolonization The use of topical and systemic antimicrobials to eradicate colonization of resistant bacteria

Direct Care Providing hands-on care, such as bathing, washing, turning resident, changing clothes/incontinent products, dressing changes, care of open wounds/lesions or toileting (feeding and pushing a wheelchair are not classified as direct care)

Outbreak	Increase in numbers of cases above the number normally occurring in a particular health care setting over a defined period of time.
Point-Prevalence	Surveillance for all existing and new nosocomial infections and/or colonization in a health care setting either on a single day (point prevalence) or over a specified number of days (period prevalence).
Terminal Cleaning	The cleaning of a resident room or bed space following discharge, transfer, or discontinuation of precautions, in order to rid it of contaminating micro organisms that might be acquired by subsequent occupants.

PROCEDURE:

SCREENING AND SWABBING: New Admissions/Readmissions From Hospital >12 hours

1. Any resident admitted to the County of Elgin Homes will be screened for risk factors for MRSA and VRE using the MRSA and VRE Admission Screening Forms. The screening will occur within 24 hours of admission.

2. When swabbing is indicated by the Admission Screening Form, resident will be swabbed within 24 hours.

   Swabs for MRSA will include:
   - Anterior nares, AND
   - Perianal, AND
   - Any skin lesions, wounds, incisions, ulcers, ostomies and exit sites of indwelling devices.

   Swabs for VRE will include:
   - Detection of VRE is best with stool sample, but if a stool sample cannot be obtained, a rectal swab may be used; insert it a few millimetres into the rectum until visible stool is obtained.
   - If resident has a colostomy, collect specimen from the colostomy output.

3. If a new admission is identified as high risk for ARO colonization or infection as per the Admission Screening Form (e.g. the resident is known to be positive for an ARO or a known contact with an ARO or has received health care in another country) has been identified on the screening form, the resident should be placed on contact precautions while awaiting the culture results.

SCREENING AND SWABBING: CONTACTS

1. Any resident who has had physical contact (e.g. roommate) with a MRSA or VRE case is to have at least two specimens taken on different days, with one taken a minimum of seven days following the last exposure. If the contact is negative and continues to share a room or have physical contact with the positive resident the contact will be screened on an annual basis for the appropriate infection, or more often if deemed necessary. E.g. roommate of infected resident acquires any skin lesions, wounds, incisions, ulcers or indwelling devices. Contacts should be rescreened if there is on-going transmission (when new cases of MRSA continue to be identified despite active control measures).

2. Contact precautions may be instituted before culture results are available for residents believed to be at particularly high risk of being colonized or infected with an ARO.

3. When a new case of MRSA or VRE is identified, the Manager of Resident Care will make every effort possible to try to determine the source of the organism.

SCREENING AND SWABBING: POINT-PREVALENCE

1. Consider conducting point-prevalence screening on the affected floor/unit if additional cases are found after doing contact tracking.

2. Continue to screen until no further transmission is detected; in general, this means at least two prevalence screens taken at least one week apart after the last transmission was detected.

COMMUNICATION:

1. The Manager of Resident Care will be notified within 24 hours of all newly identified residents with MRSA or VRE. The physician will be notified on the next visit to the home. The Manager of Resident Care will initiate an MRSA/VRE tracking sheet (see attached) to monitor for the possibility of nosocomial infection. The Manager of Resident Care will notify the Manager of Support Services of the newly identified residents with MRSA or VRE.

2. The Registered Staff will be responsible to update the care plan to reflect provision of care and flag the outside spine of resident's chart with a blue dot labelled MRSA.

3. If the resident is transferred while in precautions, both the transportation service and the receiving department/organization will be notified that the resident is on precautions for MRSA/VRE prior to transport.

4. Signage indicating the required precautions should be posted at the entrance to the resident's room.

5. If a new admission is positive for an ARO, and has been transferred from another healthcare facility, the Manager of Resident Care will make every effort possible to contact the originating healthcare facility to notify them of the newly identified positive resident.

RESIDENT ACCOMMODATION:

1. If at all possible, the resident with MRSA or VRE should be placed in a private room with individual toileting facilities.

2. When a private room is not available, residents with MRSA should be cohorted with other residents with MRSA and residents with VRE should be cohorted with other residents with VRE.

3. If cohorting is not possible, residents with MRSA should **not** share a room with:
   - Individuals who have open wounds or decubitus ulcers
   - Individuals who have urinary catheters, feeding tubes, or other invasive devices

4. Residents with MRSA and VRE can leave their rooms and can participate in the daily activities of the home. Residents with MRSA and VRE must be encouraged to/assisted with performing hand hygiene frequently, especially before leaving their rooms.

5. Added measures for residents whose conditions put them at higher risk for contaminating the environment (e.g. uncontainable drainage or incontinence) should be determined on a case by case basis after consultation with the Manager of Resident Care.

PRECAUTIONS:

1. Any resident who is MRSA or VRE positive should be cared for using Contact Precautions, in addition to Routine Practices. Always provide care to non-positive roommate prior to positive resident.

2. Gloves must be worn when providing direct care to any resident who has MRSA or VRE.

3. A long-sleeved gown should be worn when providing direct care if soiling of clothing or contact with the resident or resident environment is anticipated.

4. Gloves and a gown must be removed and discarded immediately on leaving the room or bed space of a resident with MRSA or VRE. Hand hygiene should be performed immediately after the personal protective equipment (PPE) has been removed.

5. No special handling of trays, linen, or waste is required for residents with MRSA or VRE.

DISCONTINUATION OF PRECAUTIONS:

1. Repeat testing of an MRSA positive resident will be conducted every six months. Three complete sets of negative swabs, collected at least one week apart, are required to consider the resident MRSA-free. If one swab is positive, the other 2 swabs are not required.

2. If a previously positive resident has had three complete sets of negative swabs, collected at least one week apart, precautions can be discontinued.

3. Previously positive residents who have had three complete sets of negative swabs, one week apart, should continue to be screened every month for six months after the precautions have been discontinued, to monitor for any changes in ARO status.

4. Re-screening for VRE is not currently recommended. Colonization with VRE tends to persist for long periods of time and there is little literature to support recommendations to re-screen at this time.
5. VRE re-screening MAY be considered under specific circumstances, in consultation with the facility's infection control professional.

DECOLONIZATION:

1. Decolonization therapy for residents with MRSA and/or VRE is not currently recommended.

2. In situations where a resident colonized with MRSA is implicated in an outbreak, the Manager of Resident Care may discuss decolonization with the residents attending physician.

3. Decolonization should be considered for staff colonized with a strain of MRSA that has been epidemiologically linked to an outbreak.

ENVIRONMENTAL CLEANING & EQUIPMENT USE:

1. When possible, dedicated equipment (e.g. wheelchair, lift sheet, blood glucose meter, thermometer, etc.) should be used to provide care to residents with MRSA or VRE.

2. In the event that any equipment must be shared, thorough cleaning and disinfection of all such equipment will occur before use with another resident (e.g. healthcare approved disinfection wipes). When possible, the resident with MRSA/VRE will use the equipment last, followed by a thorough cleaning.

3. As per Routine Practices, rooms and surfaces used for residents with MRSA or VRE must be thoroughly cleaned daily and upon discharge of the resident. The standard

housekeeping products will suffice. Stringent protocols are required for the daily cleaning of rooms contaminated with VRE due to the identified increase in environmental contamination with VRE. (See attached Cleaning Checklist).

4. Upon discontinuation of precautions, transfer, or discharge, the resident's room will receive terminal cleaning. All privacy, shower, and window curtains will be taken down and sent for laundering. All disposable items, including unused paper towels and toilet paper will be thrown away.

VISITORS:

1. Visitors need not be restricted from visiting the resident with MRSA or VRE. They should be instructed on correct hand hygiene procedures with an emphasis on the importance of hand hygiene after physical contact with the resident and on exit from room.

2. If a visitor is providing direct care, the visitor should be instructed to wear the same PPE as staff.

OUTBREAK OF MRSA OR VRE:

1. In the event of a suspected outbreak of MRSA or VRE, the local public health unit should be notified.

REFERENCES:

http://www.health.gov.on.ca/english/providers/program/infectious/diseases/icstaff.html

Public Health Ontario. Provincial Infectious Diseases Advisory Committee (PIDAC): Annex A: Screening, Testing and Surveillance for Antibiotic-Resistant Organisms (AROs). 2013. Available online at: http://www.publichealthontario.ca/en/eRepository/PIDAC-IPC_Annex_A_Screening_Testing_Surveillance_AROs_2013.pdf

CLEANING CHECKLIST FOR RESIDENT ROOM CONTAMINATED WITH MRSA OR VRE
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 (tables, bed rails, call bells, work surfaces, mattresses/covers, doorknobs, sinks, light fixtures, chairs, phone, TV controls, soap dispensers, toys, electronic games)
( ) Clean bathroom, working from sink area to toilet area
( ) Clean floors

CHECKLIST FOR DISCHARGE CLEANING ("TERMINAL CLEANING"):

( ) Remove all dirty/used items (e.g. suction container, disposable items)
( ) Remove curtains before starting to clean the room
( ) Discard and replace the following:

☐Soap
☐Toilet paper
☐Dressing Supplies
☐Glove box

( ) Use clean cloths, mop, supplies and solution to clean the room
( ) Fill one bucket of the disinfectant so it is the correct strength
( ) Check to see if the mattress, pillows and chairs are torn
( ) Report damaged items to your supervisor to have them replaced/repaired
( ) Use several cloths to clean a room. Use each cloth one time only, do not dip a cloth back into disinfectant solution after use and re-use on another surface. **THERE IS TO BE NO REUSE OF USED CLOTHS**.
( ) Always work from top to bottom
( ) Clean all surfaces and allow for the appropriate contact time with the disinfectant:

☐Mattress
☐Pillow
☐Bedrails and bed controls
☐Call bell
☐Pull cord in washroom
☐Inside drawers
☐TV controls
☐Soap dispenser
☐Door handles
☐Light switches
☐Light cord
☐Chair
☐Phone

( ) Clean the following (and any other items that might be used on another patient) thoroughly before being used by another patient
☐Commodes/high toilet seat
☐Wheelchairs
☐ Lifts

MRSA and VRE Screening Form

This form to be completed within 24 hours for each new admission to facility and Re-admission from hospital ≥ 12 hours.

Risk Factors	Yes	NO
Direct transfer from another health care facility e.g. Long Term Care, Retirement home, hospital, group home, readmission from hospital >12 hours		
Admission to a health care facility within the past 12 months and/or received health care in another country within the last 12 months		
History of MRSA or VRE positive specimen(s) – previous colonization or infection		
Flagged as ARO contact (as indicated in MDS-RAI) and/or recent exposure to a unit/area of a health care facility having a MRSA/VRE outbreak		

Staff Signature	Date

If the answer to any of the above questions is "Yes", collect the following specimens.

Type of Specimen	Specimen collection date	Staff Initials
Swab from **anterior nares** for MRSA testing (one swab for both nares)		
Swab from **perianal area** for MRSA and VRE testing		
Swab indwelling device exit sites (for MRSA testing); Specify Site:_____		
Swab all skin lesions, wounds, incisions, ulcers (for MRSA and VRE testing); Specify Site:_____		

NOTES:_____

Infection Control Screening/Swabbing Consent

Resident Name

LAST: FIRST:

Date of Birth: (dd/mm/yyyy)

Allergies: ❍ YES ❍ NO

If Yes, please list:

I consent to the requirements for Infection Control Screening/Swabbing on admission and then as required as per home policy and procedure.

Resident/SDM

Print Name:_____ Relationship _____

Signature:_____Date:(dd/mm/yyyy)_____

Witness:_____Date:(dd/mm/yyyy)_____