
 <p>Winnipeg Regional Health Authority Office régional de la santé de Winnipeg Caring for Health À l'écoute de notre santé</p> <p>OPERATIONAL GUIDELINE</p>	Personal Care Home/Long Term Care Facility Infection Prevention and Control Program	
	Management of Antimicrobial Resistant Organisms (AROs) in a Long Term Care Setting	
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	Approval Signature: 	Supercedes: Management of Methicillin-Resistant Staphylococcus Aureus (MRSA) (December 2007), Management of Vancomycin Resistant Enterococci (VRE) (October 2008)
Date of Approval: July 18, 2018		
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1.0 **PURPOSE:**

- 1.1 To prevent and/or minimize the transmission of AROs from person to person both within the Long Term Care (LTC) sector and between facilities/sites within the Winnipeg Regional Health Authority (WRHA).
- 1.2 To ensure consistent Infection Prevention and Control practices are followed for the management of AROs in LTC within the WRHA.

2.0 **DEFINITIONS:**

- 2.1 Additional Precautions: Additional measures implemented when Routine Practices alone may not interrupt transmission of an infectious agent. Used in addition to, not in place of, Routine Practices. Initiated based on condition/clinical presentation (syndrome) and on specific etiology (diagnosis).
- 2.2 Antimicrobial-Resistant Organism (ARO): A microorganism that is of clinical or epidemiologic significance, and has developed resistance to the action of one or more antimicrobial agents. Examples of microorganisms included in this group are Methicillin Resistant *Staphylococcus Aureus* (MRSA) and Carbapenamase Producing Enterococcus (CPE).

Other microorganisms are included when antimicrobial-resistance is judged to be significant in a specific health care facility or patient population, at the discretion of the infection prevention & control (IP&C) program or local, regional or national authorities. The types of organisms designated as antimicrobial-resistant vary over time and place. Resistance is determined by laboratory testing and assigned based on the current criteria of the Clinical Laboratory Standards Institute (CLSI).

- 2.3 ARO Positive: An individual from whom an ARO has been isolated.
- 2.4 Cleaning: The physical removal of foreign material (e.g. dust or soil) and organic material (e.g. blood, secretions, excretions and microorganisms). Cleaning physically removes soil, rather than kills microorganism. It is accomplished by using water and detergents in conjunction with mechanical action.
- 2.5 Cohort: Physically separating (e.g., in a separate room or ward) two or more Residents exposed to, or infected with, the same microorganism from other Residents who have not been exposed to, or infected with, that microorganism.
- 2.6 Colonized/Colonization: Presence of microorganism in or on a host with growth and multiplication but without tissue invasion or cellular injury, so there are no signs or symptoms of infection.
- 2.7 Contact Precautions: Precautions and practices that include single room or at least one meter between beds in multi-patient/resident rooms, with HCWs wearing gowns and gloves for interactions that involve contact with the infected individual or their environment.
- 2.8 Carbapenemase-Producing Enterobacteriaceae (CPE): Gram-negative bacteria in the family Enterobacteriaceae that produce a carbapenemase enzyme. Carbapenemase enzymes are beta-lactamases capable of hydrolyzing members of the carbapenem class of antibiotics and most other β -lactam antibiotics. Examples of carbapenemase enzymes of epidemiologic importance include the New-Delhi metallo-beta-lactamase (NDM) and *Klebsiella pneumoniae* carbapenemase (KPC) enzymes. Most CPE isolates demonstrate phenotypic resistance to carbapenems and would therefore also meet the definition of carbapenemase-resistant Enterobacteriaceae.
- 2.9 Extended Spectrum Beta-Lactamase (ESBL): An enzyme produced by some species of Gram-negative bacilli. ESBL enzymes have the ability to inactivate a wide range of beta-lactam antibiotics including penicillins and extended-spectrum cephalosporins (e.g., ceftriaxone and/or ceftazidime).
- 2.10 Facility Approved Disinfectant: A disinfectant cleaner that has been approved by the facility or organization. It must achieve manufacturer's recommended contact time on all surfaces to ensure appropriate disinfection. Contact time is the time the surfaces must continue to be wet with disinfectant.
- 2.11 Hand Hygiene: A comprehensive term that applies to hand washing, hand antisepsis and actions taken to maintain healthy hands and fingernails.

- 2.12 Health Care Worker (HCW): An individual who provides care to Residents in the healthcare workplace, e.g. nurses, physicians, health care aides, allied health professionals, and emergency responders.
- 2.13 Methicillin-Resistant *Staphylococcus aureus* (MRSA): Strains of *S. aureus* that are resistant to beta-lactam antimicrobials (e.g., penicillins, cephalosporins, carbapenems). Some of these strains may also be resistant to aminoglycosides, erythromycin, quinolones and other antibiotics.
- 2.14 Personal Protective Equipment (PPE): Devices and clothing designed to be worn or used for the protection or safety of an individual (e.g. gloves, gowns, masks, shoe covers, protective eyewear, etc.).
- 2.15 Resident: Shall mean patient, client, individual, or Resident receiving healthcare from a WRHA facility, program or funded site.
- 2.16 Routine Practices: A comprehensive set of IP&C measures, that have been developed for use in the routine care of all Residents at all times in all health care settings. Routine Practices aim to minimize or prevent healthcare associated infections in all individuals in the health care setting including Residents, HCWs, other staff, visitors, contractors, etc.
- 2.17 Screening/Surveillance Cultures: Cultures to identify an ARO in an individual with risk factors for acquisition of the organism.
- 2.18 Terminal Cleaning: Thorough cleaning of all surfaces and equipment within the room with a Facility Approved Disinfectant. This will include spot cleaning of visible soil on walls and removal of privacy curtains.
- 2.19 Vancomycin-Resistant Enterococci (VRE): Enterococci that are resistant to vancomycin, the drug of choice for treating multi-drug resistant enterococci infections.

3.0 OPERATIONAL DIRECTIVES:

- 3.1 ARO Colonized or infected individuals shall not to be denied admission into personal care homes (PCH) or long term care facilities (LTCF) within the WRHA.
- 3.2 LTC Residents shall not be screened for AROs with Surveillance Cultures upon admission or transfer to the PCH/LTCF.
- 3.3 Routine Practices are a minimum standard of care for all Residents regardless of their history of an ARO Positive result.

- 3.3.1 LTC Residents who are Colonized or infected with AROs do not endanger the health of HCWs or other Residents when Routine Practices, especially good hand hygiene are consistently and properly applied. Controlling transmission is primarily the responsibility of direct caregivers through hand hygiene, equipment cleaning, and appropriate use of personal protective equipment, especially gloves.
- 3.4 LTC Residents with an ARO shall **not** be placed on Additional Precautions unless there is a condition that increases the risk of transmission such that Routine Practices alone are insufficient to prevent spread.
- 3.4.1 IP&C precautions must be balanced with promoting an optimal, healthy lifestyle for the Resident. Imposing Additional Precautions would interfere with social interaction, rehabilitative care, and may result in isolation, depression, anger and even death.
- 4.0 **PROCEDURE:**
- 4.1 In the event a Resident is newly identified as ARO Positive on a lab result or upon return from an acute care admission, the nurse will:
- 4.1.1 Assess for the presence of conditions that increase the risk of transmission and implement Additional Precautions in addition to Routine Practices *if required*.
- 4.1.1.1 Conditions requiring Additional Precautions when a Resident is ARO Positive include;
- Extensive desquamating skin disorder with known or suspected ARO infection or significant ARO Colonization, initiate Contact Precautions.
 - Draining ARO infected wounds in which drainage cannot be contained by a dressing, initiate Contact Precautions.
 - Uncontrolled respiratory secretions in a Resident who has an ARO Colonized tracheostomy or ARO pneumonia, initiate Droplet/Contact Precautions.
 - Acute diarrhea suspected or confirmed to be caused by an ARO (e.g., acute VRE infection) where feces is uncontrolled and cannot be contained, initiate Contact Precautions.
- 4.1.1.2 If the Resident has any of the conditions above, place the Resident in a single room with an individual toilet and hand hygiene facilities where possible.
- 4.1.1.3 Include the Resident's history of an ARO Positive result when Additional Precautions are required in the integrated care plan in the "Special Housekeeping Considerations" section. Ensure the care plan is updated once the condition that required the implementation of Additional Precautions has resolved and the precautions have been discontinued.

- 4.1.1.4 If Additional Precautions are required, they must be implemented as a temporary measure until the condition that increases the risk of transmission has resolved.
- 4.1.2 If the Resident does not have any of the conditions above, Routine Practices are sufficient to control the transmission of AROs.
- 4.1.6 Communicate the Resident's history of an ARO Positive result to pharmacy who will indicate it under the diagnoses on the medication administration record. History of an ARO Positive result is clinically significant information for prescribers to be aware of when selecting appropriate treatment.
- 4.1.8 Provide the HCW, Resident, and family/visitors with verbal and/or written information regarding infection control practices and/or precautions for Residents with a history of an ARO Positive result. See the Manitoba Health, Seniors and Active Living (MHSAL) *Guidelines for the Prevention and Control of Antimicrobial-Resistant Organisms* pg. 63-69 for fact sheets on MRSA, VRE, and CPE (available at: <https://www.gov.mb.ca/health/publichealth/cdc/docs/ipc/aro.pdf>).
- 4.2 Surveillance Cultures, Admission Screening, Clinical Cultures
- 4.2.1 On admission or transfer of a LTC Resident, Surveillance Cultures or Screening is not required.
- 4.2.2 Surveillance Cultures may be requested as a part of an acute care outbreak investigation and shall be directed by the facility Infection Control Professional (ICP)/designate in collaboration with the WRHA LTC Program contact responsible for IP&C. Refer to the MHSAL *Guidelines for the Prevention and Control of Antibiotic Resistant Organisms* pg. 70-71 (available at: <https://www.gov.mb.ca/health/publichealth/cdc/docs/ipc/aro.pdf>) for direction on collecting surveillance cultures when required.
- 4.2.3 LTC Residents admitted to acute care will be screened for MRSA.
- 4.2.4 Screening for VRE and ESBL has been discontinued for all facilities in the Province of Manitoba since the publication of the MHSAL ARO guidelines.
- 4.3 Flagging Resident Health Records
- 4.3.1 LTC Resident health records shall not be flagged with the ARO status.
- 4.4 Resident Placement, Cohorting & Activities
- 4.4.1 Cohort LTC Residents with the same AROs when possible.

- 4.4.1.1 If Cohorting is not possible, place the Resident with the history of an ARO Positive result with a low risk roommate or in a single room. Low risk roommates include individuals with:
 - No open wounds/ulcers
 - No urinary catheters, feeding tubes or other invasive devices
 - No debilitated or bed bound residents requiring extensive hands on care.
- 4.4.2 Allow the Resident with the history of an ARO Positive result to socialize, go to the dining area and participate in therapeutic group activities outside his/her room unless Additional Precautions are temporarily required.
 - 4.4.2.1 Participation in activities outside of the room must be temporarily suspended while Additional Precautions are in place and until the condition that warranted their implementation has resolved.
 - 4.4.2.2 Per Routine Practices, cover the Resident's wounds with dry dressings and have Resident perform Hand Hygiene before participating in social or therapeutic group activities regardless of their history of an ARO Positive result.
- 4.5 Infection Prevention and Control Practices
 - 4.5.1 Hand Hygiene
 - 4.5.1.1 Follow Routine Practices
 - 4.5.2 Gowns, Gloves, Masks and Eye protection
 - 4.5.2.1 Follow Routine Practices
 - 4.5.3 Equipment
 - 4.5.3.1 Follow Routine Practices
 - 4.5.3.2 Have dedicated equipment e.g. slings, sliders, commodes if possible.
 - 4.5.3.3 If equipment cannot be dedicated it must be cleaned and disinfected with a Facility Approved Disinfectant before use with another resident.
 - 4.5.4 Linen
 - 4.5.4.1 Follow Routine Practices.
 - 4.5.5 Dishes
 - 4.5.5.1 Follow Routine Practices
 - 4.5.6 Needles and Syringes
 - 4.5.6.1 Follow Routine Practices
 - 4.5.7 Laboratory Specimens
 - 4.5.7.1 Follow Routine Practices
 - 4.5.8 Waste Disposal
 - 4.5.8.1 Follow Routine Practices
 - 4.5.9 Resident Health Record and Personal Documents e.g. wills, voting

4.5.9.1 Follow Routine Practices

4.5.10 Environmental Control/Housekeeping

4.5.10.1 Perform routine Cleaning according to the PCH/LTCF policy using a Facility Approved Disinfectant. Pay particular attention to bathing and toileting facilities, recreational equipment, and horizontal surfaces in the Resident's room, and items that are frequently touched, e.g. handrails, light cords, laundry hamper lids.

4.5.10.2 Terminal Cleaning is required when Additional Precautions are discontinued or the Resident is no longer occupying the room. Terminal cleaning principles remain the same for all Resident moves/discharges regardless of the Resident's history of an ARO Positive result and include;

- Changing the privacy curtains where they exist.
- Cleaning and disinfecting wipeable light cords and call bells and/or discarding cloth light cords/call bells if your facility has not already changed to wipeable formats.
- Immediately cleaning and disinfecting soiled equipment or furnishings with a Facility Approved Disinfectant.
- Clean all surfaces in the room with special attention to high touch areas allowing the surfaces to remain wet for the contact time specified by the manufacturer of the cleaning chemistry.
- Launder mop heads before reusing them.

4.6 Discontinuation of Additional Precautions

4.6.1 Discontinue Additional Precautions when the condition that warranted their implementation (see 4.1.1.1) has resolved.

4.6.2 Perform a Terminal Cleaning of the room upon discontinuation of Additional Precautions.

4.7 Treatment or Decolonization

4.7.1 The prescriber (in consultation with an infectious disease physician if required) determines treatment of active ARO infections.

4.7.2 Use of antimicrobials for ARO Colonization or in the absence of an Infection (also known as decolonization) is not appropriate for LTC Residents.

4.8 Diagnostic Procedures/Transfers of Residents within the Facility

- 4.8.1 If Additional Precautions are being used, notify the receiving department of the Resident's ARO status. If conditions are not present that warrant the Additional Precautions then notification to the receiving department is not required as all procedures/testing must be performed using Routine Practices.
- 4.8.2 Transport of a Resident on Additional Precautions
 - 4.8.2.2 Have the Resident perform Hand Hygiene on leaving his/her room for transfer. The Resident is not required to wear gloves.
 - 4.8.2.3 Ensure the Resident is wearing clean clothes, housecoat or gown, their transport device is clean, and wounds are covered.
- 4.9 Discharge/Transfer of Resident between Facilities
 - 4.9.1 Document the resident's ARO status on the Manitoba Information Transfer Referral Form (e.g. MRSA and CPE) when sending the Resident to another facility to alert the staff of the need to follow their facility's ARO guidelines. Also document any Additional Precautions in place for the Resident. Send the completed Manitoba Information Transfer Referral Form with the Resident to the receiving facility.
- 4.10 Transport of Resident by Transport Service
 - 4.10.1 Notify Transport Service if the Resident is on Additional Precautions and which type of precautions they are on (e.g. Droplet, Droplet/Contact, Contact etc.).
- 4.11 Visitors
 - 4.11.1 If the Resident is on Additional Precautions, any visitors should check with the nurse prior to entering the Resident's room for instructions on following precautions.
 - 4.11.2 Ask visitors to perform Hand Hygiene before and after visiting the Resident.
 - 4.11.3 Visitors do not have to wear Personal Protective Equipment (PPE) unless they are providing direct hands on care (e.g., changing incontinence products etc.) or if the Resident is on precautions for a non-ARO condition that requires PPE use (e.g., *C.difficile*, shingles). If PPE is required, have visitors ask for assistance in obtaining Resident care supplies on the nursing unit.
- 4.12 Surveillance and Outbreak Management

- 4.12.1 Infections caused by AROs are captured in the Targeted Surveillance Program.
- 4.12.2 Outbreak of an ARO:
 - 4.12.2.1 An outbreak of an ARO is when occurrence of AROs at a frequency in excess of that which is normally expected. The number of cases identifying an ARO outbreak will vary with the type of ARO, size and type of population exposed, previous experience or lack of exposure to the disease, and time and place of occurrence. The identification of an ARO outbreak is relative to the usual frequency of the specific ARO in the same facility or area and in the same population during the same time frame.
 - 4.12.2.2 Consult the MHSAL *Guidelines for the Prevention and Control of Antibiotic Resistant Organisms* pg. 74-77 (available at: <https://www.gov.mb.ca/health/publichealth/cdc/docs/ipc/aro.pdf>) for additional details on ARO outbreak management.
 - 4.12.2.3 For assistance in determining if an ARO outbreak is occurring, contact the WRHA LTC Program contact responsible for IP&C and refer to the WRHA LTC *General Principles of Outbreak Management Resource Guide* available at: <http://www.wrha.mb.ca/extranet/ipc/files/manuals/ltc/OBMgmt.pdf>.
- 4.13 Emerging or Novel AROs
 - 4.13.1 Notify the WRHA LTC Program contact responsible for IP&C immediately upon suspicion or confirmation of an emerging or novel ARO.
 - 4.13.2 Appropriate precautions for Residents suspected or confirmed to have an emerging ARO (e.g., *C. auris*) must be dealt with on a case by case basis. Contact the site Infection Control and/or the WRHA LTC Program contact responsible for IP&C for assistance/direction.
 - 4.13.2.1 Healthcare providers should consider the level of care being provided and the presence of transmission risk factors when deciding on the level of precautions.
 - 4.13.3 MHSAL requires reporting to the Provincial Public Health Surveillance Unit about unusual occurrences of emerging or non-reportable diseases.
 - 4.13.3.1 Site ICP (or designate) shall complete the [Clinical Notification of Reportable Diseases and Conditions form](#), and alert MHSAL by telephone if notified about a case.

5.0 REFERENCES:

- 5.1 Manitoba Health Seniors and Active Living (MHSAL) (August 23, 2016). Guidelines for the Prevention and Control of Antimicrobial-Resistant Organisms (AROs). Available from: available at <https://www.gov.mb.ca/health/publichealth/cdc/docs/ipc/aro.pdf>
- 5.2 Manitoba Health, Seniors and Active Living. (April 2012). Routine Practices and Additional Precautions: Preventing the Transmission of Infection in Health Care. Available from: <http://www.gov.mb.ca/health/publichealth/cdc/docs/ipc/rpap.pdf>

Operational Directive Contact: WRHA LTC Program contact responsible for IP&C

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