# Summary of Interventions for Antibiotic Resistant Organisms (ARO)

| Intervention Element | MRSA Methicillin-resistant Staphylococcus aureus | VRE Vancomycin-resistant Enterococci | CPE Carbapenemase Producing Enterobacteriaceae | ESBL Extended Spectrum B-lactamase Producing Bacteria |
|---|---|---|---|---|
| **Initiation of Contact Precautions**<br><br>**(Routine Practices plus Gloves & Gown when providing direct care)** | • Receipt of positive culture result<br>OR<br>• Admission of known MRSA-positive patient (internal flag or communication from other health care setting)<br>OR<br>• High risk individual, pending culture results | • Receipt of positive culture result<br>OR<br>• Admission of known VRE-positive patient (internal flag or communication from other health care setting)<br>OR<br>• High risk individual, pending culture results | • Receipt of positive culture result<br>OR<br>• Admission of known CPE-positive patient (internal flag or communication from other health care setting)<br>OR<br>• High risk individual, pending culture results<br>OR<br>• Roommates and other contacts pending culture results | • Based on facility's ESBL program |
| **Accommodation** | • Appropriate placement and bed spacing<br>• Single room preferred<br><br>MRSA is most commonly spread via the transiently colonized hands of health care workers. Hand hygiene and environmental surface cleaning are, therefore, important measures to prevent transmission. | • Single room with own toileting facilities (toilet or commode) | • Single room with dedicated own toileting facilities essential (toilet or commode) | • Single room with own toileting facilities (toilet or commode) |
| **Environmental Cleaning** | • Routine daily cleaning/ disinfection<br>• Routine discharge/ transfer cleaning and disinfection<br>• Discard supplies remaining in room<br>• Remove and launder privacy and shower curtains | • Routine daily cleaning/ disinfection and consider double cleaning<br>• Double cleaning in an outbreak<br>• Routine discharge/ transfer cleaning and disinfection<br>• Remove and launder privacy and shower curtains<br>• Discard toilet brush and supplies remaining in room | • Routine daily cleaning/ disinfection<br>• Pay particular attention to sink cleaning/ disinfection<br>• Routine discharge/ transfer cleaning and disinfection<br>• Discard supplies remaining in room<br>• Remove and launder privacy and shower curtains<br>• Discard toilet brush/ swab | • Routine daily cleaning/ disinfection<br>• Routine discharge/ transfer cleaning and disinfection and<br>• Discard supplies remaining in room<br>• Remove and launder privacy and shower curtains<br>• Discard toilet brush/ swab |
| **Laundry** | Laundry procedure according to *PIDAC Best Practices for Environmental Cleaning for Prevention and Control of Infections In All Health Care Settings – 2nd edition*, May, 2012. (Page 50-52) | | | |


3/2018

Public Health
Santé publique
SUDBURY & DISTRICTS

# Summary of Interventions for Antibiotic Resistant Organisms (ARO)
*(continued)*

| Intervention Element | MRSA Methicillin-resistant Staphylococcus aureus | VRE Vancomycin-resistant Enterococci | CPE Carbapenemase Producing Enterobacteriaceae | ESBL Extended Spectrum B-lactamase Producing Bacteria |
|---|---|---|---|---|
| **Discontinuation of Contact Precautions** | • 3 negative cultures taken at least one week apart if decolonization has been successful<br>• If LTC, 3 negative cultures taken at least one week apart | • Minimum 3 successive negative cultures with at least one culture taken three months after the last positive culture | • Contact precautions for duration of acute care hospitalization<br>• Discontinue contact precautions for patients with risk factors or contacts when screening is complete | • Based on facility's ESBL program or for duration of acute care hospitalization<br>• In LTC, 3 negative results from all colonized/ infected body sites taken at least one week apart, in the absence of antibiotic therapy |
| **Decolonization** | • Patient/Resident: Only in an outbreak<br>• Staff: Only if colonized/ infected with outbreak strain | NO | | |
| **Patient/ Resident Risk Factors** | • Spent 12 or more continuous hours in a health care setting in the past 12 months<br>• Received health care in another country | | • Received health care in a country or hospital that has reported transmission of CPE<br>• Previously colonized or infected with CPE<br>• Contact of a CPE case | • Previously colonized or infected with ESBL<br>• Antibiotic treatment, especially betalactams or fluoroquinolones<br>• Prolonged hospital stay, ICU stay<br>• Exposed to a health care setting with ESBL outbreak<br>• Contact of a ESBL case<br>• Indwelling medical device<br>• Transplant recipient |
| | • Previously colonized or infected with MRSA<br>• Contact of a MRSA case<br>• Indwelling medical device<br>• Injection drug use<br>• Immune compromised<br>• Communal setting, contact sports (risk for CA-MRSA | • Previously colonized or infected with VRE<br>• Contact of a VRE case<br>• Recent exposure to second or third generation cephalosporins | | |
| **Re-Screening Infected/ Colonized Cases** | • If treated for infection, after antibiotics have been discontinued<br>• If decolonized, 3 sets of cultures taken at least 1 week apart<br>• If decolonized and Additional Precautions (AP) discontinued, screen weekly for duration of admission<br>• In long-term care, re-screen no more frequently than every 3 months<br>• If Additional Precautions have been discontinued, re-screen monthly for 6 months | • Ideally, no re-screening<br>• For discontinuation of AP, begin re-screening no sooner than 3 months after last positive and take 3 cultures at least one week apart, for 3 consecutive negative cultures | • No re-screening for current admission to acute care hospital<br>• Duration of colonization may be prolonged. There is insufficient evidence to recommend frequency of re-screening | • No re-screening unless risk factors change |


3/2018

Public Health
Santé publique
SUDBURY & DISTRICTS

# Summary of Interventions for Antibiotic Resistant Organisms (ARO)
*(continued)*

| Intervention Element | MRSA Methicillin-resistant Staphylococcus aureus | VRE Vancomycin-resistant Enterococci | CPE Carbapenemase Producing Enterobacteriaceae | ESBL Extended Spectrum B-lactamase Producing Bacteria |
|---|---|---|---|---|
| **Screening Contacts of Cases** | • 2 sets of specimens taken on different days, with one taken a minimum 7 days after last exposure<br>• Re-screen if ongoing transmission of MRSA/VRE<br>• Point prevalence where there is an MRSA/VRE outbreak | | • Minimum 3 sets of specimens taken on different days, with at least one taken 21 days after last exposure<br>• Re-screen if ongoing transmission of CPE<br>• Point prevalence following identification of a single new case of CPE on a unit | • Based on facility's ESBL program or for duration of acute care hospitalization<br>• In LTC, 3 negative results from all colonized/infected body sites taken at least one week apart, in the absence of antibiotic therapy |
| **Screening in an Outbreak** | • All contacts –roommates and others in close geographical proximity to source patient. For screening of staff cases consult with outbreak coordinator.<br>• Weekly prevalence screening until no further transmission. | | | |
| **Specimens** | • Anterior nares<br>AND<br>• Perianal, perineal or groin swab<br>AND<br>• Lesions/wounds, incisions, ulcers, exit sites | • Stool<br>OR<br>• Rectal swab | • Stool<br>OR<br>• Rectal swab<br>AND, if indicated<br>• Urine<br>• Wounds<br>• Exit sites (critical care) | • Stool<br>OR<br>• Rectal swab<br>AND, if indicated<br>• Urine |

***Note:*** *All health care settings in Ontario must be able to manage patients who are colonized with antibiotic resistant organisms*

Excerpts from PIDAC: Annex A-Screening, Testing and Surveillance for Antibiotic-Resistant Organisms (AROs) / February, 2013



3/2018

Public Health
Santé publique
SUDBURY & DISTRICTS