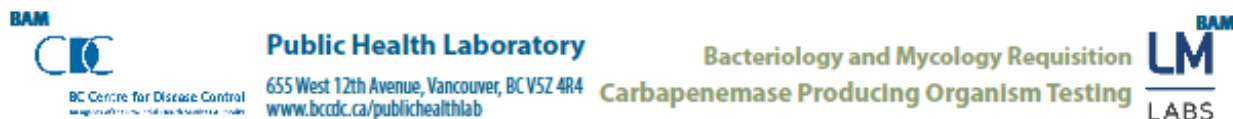


## Appendix B – Requisition Form for Carbapenemase-Producing Organisms (CPO) Testing



## Section 1 - Patient Information

PERSONAL HEALTH NUMBER (or out-of-province Health Number and province)	DOB (DD/MM/YYYY)	GENDER <input type="checkbox"/> M <input type="checkbox"/> F <input type="checkbox"/> UNK	DATE RECEIVED  <b>LABORATORY USE ONLY</b>
PATIENT SURNAME	PATIENT FIRST AND MIDDLE NAME		
ADDRESS	CITY	POSTAL CODE	

## Section 2 - Submitting Laboratory Details

CONTACT PERSON	HOSPITAL (Name and address for report delivery)	SAMPLE REF. NO.
TELEPHONE NUMBER	PHSA CLIENT NO.	DATE COLLECTED (DD/MM/YYYY)
ADDITIONAL COPIES TO:		

## Section 3 - Specimen Details

ORGANISM IDENTIFICATION:	Genus	Species	SPECIMEN SOURCE <input type="checkbox"/> respiratory <input type="checkbox"/> blood <input type="checkbox"/> urine <input type="checkbox"/> wound <input type="checkbox"/> rectal <input type="checkbox"/> other: _____
<input type="checkbox"/> SCREENING ISOLATE	<input type="checkbox"/> CLINICAL ISOLATE	<input type="checkbox"/> CONTACT TRACING	
PREVIOUS CPO SCREENING: <input type="checkbox"/> NO <input type="checkbox"/> YES DATE: _____			

## Automated Antiblogram:

Antibiotic	MIC	Interpretation (S, I, R)	Antibiotic	MIC	Interpretation (S, I, R)
Ampicillin		S <input type="checkbox"/> I <input type="checkbox"/> R <input type="checkbox"/>	Gentamicin		S <input type="checkbox"/> I <input type="checkbox"/> R <input type="checkbox"/>
Ampicillin/Clavulanate		S <input type="checkbox"/> I <input type="checkbox"/> R <input type="checkbox"/>	Imipenem		S <input type="checkbox"/> I <input type="checkbox"/> R <input type="checkbox"/>
Aztreonam		S <input type="checkbox"/> I <input type="checkbox"/> R <input type="checkbox"/>	Levofloxacin		S <input type="checkbox"/> I <input type="checkbox"/> R <input type="checkbox"/>
Amikacin		S <input type="checkbox"/> I <input type="checkbox"/> R <input type="checkbox"/>	Meropenem		S <input type="checkbox"/> I <input type="checkbox"/> R <input type="checkbox"/>
Cefazolin		S <input type="checkbox"/> I <input type="checkbox"/> R <input type="checkbox"/>	Minocycline		S <input type="checkbox"/> I <input type="checkbox"/> R <input type="checkbox"/>
Cefepime		S <input type="checkbox"/> I <input type="checkbox"/> R <input type="checkbox"/>	Nitrofurantoin		S <input type="checkbox"/> I <input type="checkbox"/> R <input type="checkbox"/>
Cefoxitin		S <input type="checkbox"/> I <input type="checkbox"/> R <input type="checkbox"/>	Pefloxacin		S <input type="checkbox"/> I <input type="checkbox"/> R <input type="checkbox"/>
Cefpodoxime		S <input type="checkbox"/> I <input type="checkbox"/> R <input type="checkbox"/>	Piperacillin		S <input type="checkbox"/> I <input type="checkbox"/> R <input type="checkbox"/>
Ceftazidime		S <input type="checkbox"/> I <input type="checkbox"/> R <input type="checkbox"/>	Piperacillin/Tazobactam		S <input type="checkbox"/> I <input type="checkbox"/> R <input type="checkbox"/>
Cefixime		S <input type="checkbox"/> I <input type="checkbox"/> R <input type="checkbox"/>	Rifampin		S <input type="checkbox"/> I <input type="checkbox"/> R <input type="checkbox"/>
Ceftriaxone		S <input type="checkbox"/> I <input type="checkbox"/> R <input type="checkbox"/>	Ticarcillin		S <input type="checkbox"/> I <input type="checkbox"/> R <input type="checkbox"/>
Cephalothin/Cephalexin		S <input type="checkbox"/> I <input type="checkbox"/> R <input type="checkbox"/>	Ticarcillin/Clavulanic Acid		S <input type="checkbox"/> I <input type="checkbox"/> R <input type="checkbox"/>
Ciprofloxacin		S <input type="checkbox"/> I <input type="checkbox"/> R <input type="checkbox"/>	Tigecycline		S <input type="checkbox"/> I <input type="checkbox"/> R <input type="checkbox"/>
Colistin		S <input type="checkbox"/> I <input type="checkbox"/> R <input type="checkbox"/>	Tobramycin		S <input type="checkbox"/> I <input type="checkbox"/> R <input type="checkbox"/>
Ertapenem		S <input type="checkbox"/> I <input type="checkbox"/> R <input type="checkbox"/>	Trimethoprim/Sulfamethoxazole		S <input type="checkbox"/> I <input type="checkbox"/> R <input type="checkbox"/>

☐ OR, See attached for automated AST results

<b>Phenotypic Confirmation:</b>				<b>Other Results:</b>	
E-test/discs				ESBL E-test Interpretation: _____	
Antibiotic	MIC	Zone diameter	Interpretation	Other Tests and Interpretation: _____	
Ertapenem				CPO PCR Interpretation: _____	
Meropenem					
Imipenem					
Rosco Disc Interpretation: _____					

Form PHBM\_225\_2001F Version 1.1 05/2017

## Appendix C - Surveillance Form for Carbapenemase-Producing Organisms (CPO) OR *Candida auris* (*C. auris*) Identified in Acute Care Facility

1	<b>Organism</b> <input type="checkbox"/> CPO OR <input type="checkbox"/> <i>C. auris</i> If a patient is colonized and/or infected with both CPO and <i>C. auris</i> , please fill out two separate forms for each organism
2	<b>Unique Identifier</b> — assigned by BCCDC Public Health Laboratory (PHL) _____
3	<b>Patient's status</b> <input type="checkbox"/> Inpatient <input type="checkbox"/> Other, please specify _____
4	<b>Date of admission or visit</b> (dd/mm/yyyy) _____
5	<b>Name of the facility</b> _____
6	<b>Status</b> <input type="checkbox"/> Infection (please also complete appendix D) <input type="checkbox"/> Colonization <input type="checkbox"/> Unknown
7	<b>Did the patient travel outside of Canada within the past 12 months?</b> <input type="checkbox"/> Yes. Please specify the name of the country _____ <input type="checkbox"/> Country not provided <input type="checkbox"/> No. Please skip Question 8. <input type="checkbox"/> Unknown or patient is discharged. Please skip Question 8.
8	<b>If answered Yes to Question 7, did the patient have a health-care encounter outside of Canada within the past 12 months?</b> <input type="checkbox"/> Yes, an overnight stay in a hospital or undergone medical/surgical procedure outside of Canada <input type="checkbox"/> Yes, other health-care encounter, e.g., visited GP, walking clinic, dentist, ER, etc. <input type="checkbox"/> No health-care encounter <input type="checkbox"/> Unknown
9	<b>Did the patient have an overnight stay in a Canadian facility or undergo medical/surgical procedure in Canada (including BC) within the past 12 months?</b> <input type="checkbox"/> Yes. Please specify the name of the province (s) _____ <input type="checkbox"/> No. Please skip to question 11. <input type="checkbox"/> Unknown. Please skip to question 11.
10	<b>If answered Yes to Question 9 and one of the provinces identified was BC, what types of health-care encounters has the patient had in BC in the past 12 months (excluding current admission)? (Check all that apply)</b> <input type="checkbox"/> An acute care unit/facility admission <input type="checkbox"/> A long-term care facility admission <input type="checkbox"/> A medical/surgical procedure in an outpatient setting <input type="checkbox"/> No health-care encounter <input type="checkbox"/> Unknown
11	<b>Is the unit/facility in which the patient is currently admitted under investigation for transmission of organism identified in question 1?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown or patient is discharged
12	<b>Did the patient have contact [minimum 12 hours] with a known case or environmental sources for the organism (CPO or <i>C. auris</i>) identified in question 1 within the past 12 months? (Check all that apply)</b> <input type="checkbox"/> Yes, within an acute care facility <input type="checkbox"/> Yes, within a long-term care facility <input type="checkbox"/> Yes, private household

	<input type="checkbox"/> Yes, other <i>please specify</i> _____ <input type="checkbox"/> No. <i>Please skip Question 13.</i> <input type="checkbox"/> Unknown. <i>Please skip Question 13</i>
13	<b>If answer Yes to Question 12, what was the <i>nature</i> of the contact? (Check all that apply)</b> <input type="checkbox"/> Roommate <input type="checkbox"/> Person in the same unit/facility or house <input type="checkbox"/> Health-care provider <input type="checkbox"/> Friend/Relative <input type="checkbox"/> Environmental sources (e.g., contaminated sink or other surface, medical equipment, etc.) <input type="checkbox"/> Other, <i>please specify</i> _____ <input type="checkbox"/> Unknown

Once completed, please send it to PICNet at [picnet@phsa.ca](mailto:picnet@phsa.ca)

## Appendix D – Addendum Form for Carbapenemase-Producing Organisms (CPO) OR *Candida auris* (*C. auris*) Infections Identified in Acute Care Facility

**NB:** This form should be complete if a) the case was identified as a CPO or *C. auris* infection; b) the case was initially reported as colonization, and subsequently developed into a CPO or *C. auris* infection within a year from initial identification. Please ensure that the surveillance form for CPO or *C. auris* (**Appendix C**) has been completed for this case.

1	<b>Organism</b> <input type="checkbox"/> CPO OR <input type="checkbox"/> <i>C. auris</i> If a patient is colonized and/or infected with both CPO and <i>C. auris</i> , please fill out two separate forms for each organism
2	<b>Unique Identifier</b> – assigned by BCCDC Public Health Laboratory (PHL) _____
3	<b>Patients' status</b> <input type="checkbox"/> Inpatient <input type="checkbox"/> Other, please specify _____
4	<b>Date of admission or visit</b> (dd/mm/yyyy) _____
5	<b>Name of the facility</b> _____
6	<b>Date of CPO infection identification</b> (dd/mm/yyyy) _____
7	<b>Site(s) of infection</b> <input type="checkbox"/> Bloodstream <input type="checkbox"/> Urinary tract <input type="checkbox"/> Respiratory tract <input type="checkbox"/> Wound <input type="checkbox"/> Surgical site <input type="checkbox"/> Other, please specify _____
8	<b>Was ICU admission required due to the infection or the complications associated with the infection within 30 days after identification of the infection?</b> <input type="checkbox"/> Yes – the patient was admitted to ICU as a result of the infection or complications associated with the infection. <input type="checkbox"/> No – the patient was not admitted to ICU <input type="checkbox"/> N/A – patient was already in ICU due to other medical conditions <input type="checkbox"/> Unknown
9	<b>Patient outcome within 30 days after identification of the infection</b> <input type="checkbox"/> Patient alive and still in hospital 30 days after identification of the infection <input type="checkbox"/> Patient survived and discharged <input type="checkbox"/> Patient survived and transferred <input type="checkbox"/> Patient died

Once completed, please send it to PICNet at [picnet@phsa.ca](mailto:picnet@phsa.ca)

## Appendix E – Notification of Ongoing Carbapenemase-Producing Organisms (CPO) or *Candida auris* (*C. auris*) Transmission

Please complete this form for notification of ongoing CPO transmission/ *C. auris* case investigation in your facility or health authority and email to [picnet@phsa.ca](mailto:picnet@phsa.ca)

### **A. Notification Information**

Health Authority: \_\_\_\_\_ Facility Name: \_\_\_\_\_ Unit: \_\_\_\_\_

Contact Person: \_\_\_\_\_ Title: \_\_\_\_\_

Contact Phone: \_\_\_\_\_ Email: \_\_\_\_\_

Facility type: ☐ Acute Care Hospital ☐ Long-term Care Facility ☐ Other \_\_\_\_\_

Is this report: ☐ Notification of CPO or *C. auris* transmission investigation (complete section B)  
☐ Notification of CPO or *C. auris* transmission investigation resolved (complete section C)

### **B. Investigation Notification**

Organism: ☐ CPO ☐ *C. auris*

Date of the source case\* identified (dd/mmm/yyyy): \_\_\_\_\_

Date investigation initiated (dd/mmm/yyyy): \_\_\_\_\_

If CPO, please specify:

Organism (Genus species): \_\_\_\_\_

CPO gene identified (e.g. NDM, KPC): \_\_\_\_\_

\* A case that makes health authority suspected of CPO transmission. It may be or may not be the first case in the transmission.

### **C. Transmission Investigation Resolved**

Date investigation closed (dd/mmm/yyyy): \_\_\_\_\_

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Reported by: \_\_\_\_\_ Date: \_\_\_\_\_

Once completed, please send to PICNet at [picnet@phsa.ca](mailto:picnet@phsa.ca)

## Appendix F – Letter to Ordering Provider in Response to CPO or *C. auris* Cases Identified in the Community

Date:

Dear *Health Care Provider (ordering provider)*,

Re: *Patient Last name, First name; PHN; DOB*

Public Health has received laboratory notification that your patient tested positive for a carbapenemase-producing organism (CPO) ☐ or *Candida auris* (*C. auris*) ☐ - both emerging public health concerns. As per the Public Health Act and the Communicable Disease Regulation, physicians/administrators for laboratories that identify CPO or *C. auris* are required to report cases to their local medical health officer.

A provincial non-nominal surveillance program is in place to monitor the epidemiology (e.g. risk factors, laboratory data) of CPO and *C. auris* in BC. Each patient isolate is assigned a unique identifier for this purpose. The unique identifier for your patient is \_\_\_\_\_. Attached is a surveillance form. We ask that you complete this form to the best of your ability and return it by email to the Provincial Infection Control Network of BC at [picnet@phsa.ca](mailto:picnet@phsa.ca).

CPOs and *C. auris* both pose significant risk to vulnerable patients in health-care facilities. In the case of CPOs, these are multi-drug resistant gram negative bacteria for which antibiotics available to treat infections are very limited. *C. auris* is an emerging yeast, which is often resistant to at least one class of antifungals. Due to this risk, please request that your patient inform any health-care facility on admission and/or routine health-care encounters (such as hemodialysis, oncology clinics, BMT day care) that they have tested positive for CPO or *C. auris*. Infection Control measures will be put in place to decrease the likelihood of spreading these bacteria or yeast to other patients.

At this time, little is known about the carriage and clearance of CPO infections in the community after treatment. Follow-up testing of clearance is not recommended, as carriage may return after treatment with a carbapenem antibiotic. After treatment for *C. auris* infections, patients can remain colonized, perhaps indefinitely.

Interpretation of this laboratory result should be in context of the overall health of your patient. In the community, patients who test positive for a CPO or *C. auris* do not generally pose a risk to others. Patients should be advised to maintain good personal hygiene and avoid sharing personal items to prevent spread to others. Added precautions are NOT required in the community office setting.

Attached is a patient information sheet for your patient (CPO or *C. auris* Health file). Further information on CPO is available at [BCCDC website](#). Further information on *C. auris* is available at [PICNet website](#).

**Appendix G - Enhanced Surveillance Form for Carbapenemase-Producing Organisms (CPO) OR  
Candida auris (C. auris) Identified in the Community**

1	<b>Organism</b> <input type="checkbox"/> CPO OR <input type="checkbox"/> <i>C. auris</i> If a patient is colonized and/or infected with both CPO and <i>C. auris</i> , please fill out two separate forms for each organism
2	<b>Unique Identifier</b> – assigned by BCCDC Public Health Laboratory (PHL) _____
3	<b>Status</b> <input type="checkbox"/> Infection <input type="checkbox"/> Colonization <input type="checkbox"/> Unknown
4	<b>Date of visit</b> (dd/mm/yyyy) _____
5	<b>At what care setting was the patient identified with the organism identified in Question 1?</b> <input type="checkbox"/> Outpatient clinic <input type="checkbox"/> Emergency room <input type="checkbox"/> Community health center/clinic <input type="checkbox"/> Long-term care facility <input type="checkbox"/> GP's office <input type="checkbox"/> Other, please specify _____
6	<b>Did the patient travel outside of Canada within the past 12 months?</b> <input type="checkbox"/> Yes, please specify the name of the country _____ <input type="checkbox"/> Country not provided <input type="checkbox"/> No. Please skip Question 7. <input type="checkbox"/> Unknown. Please skip to question 7.
7	<b>If answered Yes to Question 6, did the patient have a health-care encounter outside of Canada within the past 12 months?</b> <input type="checkbox"/> Yes, an overnight stay in a hospital or undergone medical/surgical procedure outside of Canada <input type="checkbox"/> Yes, other health-care encounter, e.g., visited GP, walking clinic, dentist, ER, etc. <input type="checkbox"/> No health-care encounter <input type="checkbox"/> Unknown
8	<b>Did the patient have an overnight stay in a Canadian facility or undergo medical/surgical procedure in Canada (including BC) within the past 12 months?</b> <input type="checkbox"/> Yes. Please specify the name of the province (s) _____ <input type="checkbox"/> No. Please skip to question 10. <input type="checkbox"/> Unknown. Please skip to question 10.
9	<b>If answered Yes to Question 8 and one of the provinces identified was BC, what types of health-care encounters has the patient had in BC in the past 12 months (excluding current admission)? (Check all that apply)</b> <input type="checkbox"/> An acute care unit/facility admission <input type="checkbox"/> No health-care encounter <input type="checkbox"/> A long-term care facility admission <input type="checkbox"/> Unknown <input type="checkbox"/> A medical/surgical procedure in an outpatient setting
10	<b>Did the patient have contact [minimum 12 hours] with a known case or environmental sources for the organism identified in question 1 within the past 12 months? (Check all that apply)</b> <input type="checkbox"/> Yes, within an acute care facility <input type="checkbox"/> Yes, within a long-term care facility <input type="checkbox"/> Yes, private household <input type="checkbox"/> Yes, other please specify _____ <input type="checkbox"/> No. Please skip Question 10. <input type="checkbox"/> Unknown. Please skip Question 10
11	<b>If answered Yes to Question 9, what was the nature of the contact? (Check all that apply)</b> <input type="checkbox"/> Roommate <input type="checkbox"/> Person in the same unit/facility or house <input type="checkbox"/> Health-care provider <input type="checkbox"/> Friend/Relative

	<input type="checkbox"/> Environmental sources (e.g., contaminated sink or other surface, medical equipment, etc.) <input type="checkbox"/> Other, <i>please specify</i> _____ <input type="checkbox"/> Unknown
<b>If the patient was infected, please answer the following questions</b>	
12	<b>Site(s) of infection</b> ( <i>Check all that apply</i> ) <input type="checkbox"/> Bloodstream <input type="checkbox"/> Urinary tract <input type="checkbox"/> Respiratory tract <input type="checkbox"/> Wound <input type="checkbox"/> Surgical site <input type="checkbox"/> Other, <i>please specify</i> _____
13	<b>Was the patient admitted to a BC hospital due to the current infection identified in question 1?</b> <input type="checkbox"/> Yes, the patient was admitted due to infection. <i>Specify the name of the facility</i> _____ <input type="checkbox"/> No, the patient was admitted due to other medical conditions. <input type="checkbox"/> No, the patient was not admitted <input type="checkbox"/> Unknown

Once completed, please send by email to [picnet@phsa.ca](mailto:picnet@phsa.ca)