



PROVINCIAL STANDARDS & GUIDELINES



Carbapenemase Producing Organisms (CPOs) for Hemodialysis Outpatients

Created December 2019

Developed by the BC Renal Hemodialysis Committee



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IMPORTANT INFORMATION

This BC Renal guideline/resource was developed to support equitable, best practice care for patients with chronic kidney disease living in BC. The guideline/resource promotes standardized practices and is intended to assist renal programs in providing care that is reflected in quality patient outcome measurements. Based on the best information available at the time of publication, this guideline/resource relies on evidence and avoids opinion-based statements where possible; refer to www.bcrenalagency.ca for the most recent version.

For information about the use and referencing of BC Renal guidelines/resources, refer to <http://bit.ly/28SFr4n>.



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1.0 Scope of Guideline

Applicability: In-centre and community hemodialysis (HD) units in BC.

This guideline provides recommendations on the screening, assessment and follow-up of patients in outpatient hemodialysis units for carbapenemase producing organisms (CPOs).

2.0 Recommendations

Recommendation #1: Implement the recommendations on [Table 1](#) for the screening, assessment and follow-up of patients in outpatient hemodialysis units for CPOs.

Table 1: Recommendations for the Screening, Assessment & Follow-Up of CPOs

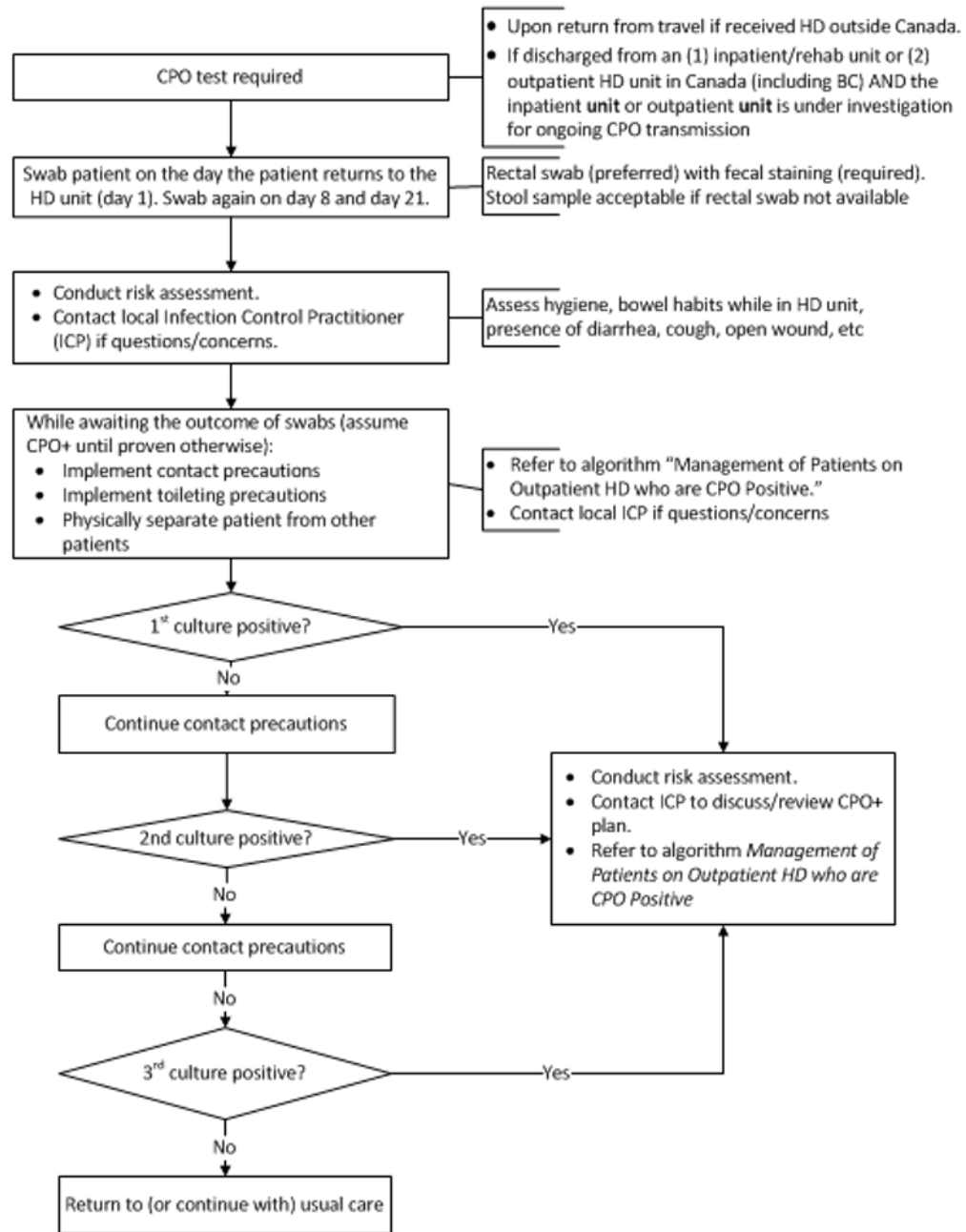
Topic	Specifics	Carbapenemase Producing Organisms (CPO)	
Screening (new & existing patients)	When to swab/ test?	<p>Swab:</p> <ol style="list-style-type: none"> 1. Upon return from travel if received HD outside Canada. 2. If discharged from an (1) inpatient/rehab unit or (2) outpatient HD unit in Canada (including BC) AND the inpatient unit or outpatient unit is under investigation for ongoing CPO transmission. <ul style="list-style-type: none"> • Discharge from inpatient/rehab unit: Receiving HD unit to contact local Infection Control Practitioner (ICP) to identify the current status of CPO transmission on the sending unit (HAs are made aware of inpatient CPO transmission via PICNet). • Discharge from outpatient HD unit: Sending HD unit to advise the receiving HD. Receiving unit to contact local ICP to advise whether swab is required. <p>Timing of swabs:</p> <ul style="list-style-type: none"> • Swab patient on the day the patient returns to the HD unit (day 1). Swab again on day 8 and day 21. <p>No need to screen:</p> <ul style="list-style-type: none"> • On HD start. • Annually while on HD. 	
	What to order?	CPO screen	
	What to screen?	Rectal swab (preferred) with fecal staining (required). Stool sample is acceptable if rectal swab not available.	
Prevention of disease transmission	Pre-cautions & segregation	While Awaiting Results of Swabs	CPO Positive Patients
		<ul style="list-style-type: none"> • Conduct risk assessment. • Contact local Infection Control Practitioner (ICP) if questions/concerns. • Assume CPO+ until proven otherwise (refer to Algorithms 1 & 2): <ul style="list-style-type: none"> • Implement contact precautions¹ • Implement toileting precautions (refer to Algorithm 2) • Physically separate patient from other patients (refer to algorithm 2) <p>Note about patients in Community Dialysis Units (CDUs): Most patients awaiting CPO test results can be accommodated in their “home unit” using these guidelines. Based on a risk assessment, patients feeling unwell or with active diarrhea may require transfer to an in-centre unit to accommodate patient specific isolation requirements and reduce the likelihood of transmission.</p>	<ul style="list-style-type: none"> • Conduct risk assessment. • Contact local ICP. • Implement contact precautions¹ • Implement toileting precautions (refer to Algorithm 2) • Physically separate patient from other patients (refer to algorithm 2) <p>Continue precautions for as long as dialysis is required (once colonized, assume colonized for life).</p> <p>Note about patients in Community Dialysis Units (CDUs): Most patients who are CPO+ can be accommodated in their “home unit” using these guidelines. Based on a risk assessment, patients feeling unwell or with active diarrhea may require transfer to an in-centre unit to accommodate patient specific isolation requirements and reduce the likelihood of transmission.</p>

Topic	Specifics	Carbapenemase Producing Organisms (CPO)	
		While Awaiting Results of Swabs	CPO Positive Patients
Prevention of disease transmission cont'd	Surface disinfection of HD station & equipment post-dialysis	<p>Usual procedure:</p> <ul style="list-style-type: none"> Refer to BCR guideline Prevention of Disease Transmission in HD Units www.bcrenalagency.ca ► Health Professionals ► Clinical Resources ► Hemodialysis ► Infectious Disease Guidelines (pages 3 and 4). In-centre units: Disinfection of the HD machine/supplies is usually done by dialysis-trained staff. Preparation for cleaning/disinfection of the HD station is also done by dialysis-trained staff but the actual cleaning/disinfection of the HD station is usually done by housekeeping staff. Community-dialysis units: All cleaning/disinfection between patients is usually done by dialysis-trained staff. Non-sporicidal cleaning products can be used for post-dialysis cleaning. 	
	House-keeping cleaning	<p>Additional Precaution Discharge Clean:</p> <p>Refer to PICNet guideline “BC Best Practices for Environmental Cleaning for Prevention and Control of Infections in All Healthcare Settings and Programs at www.picnet.ca/wp-content/uploads/British-Columbia-Best-Practices-for-Environmental-Cleaning-for-Prevention-and-Control-of-Infections-in-All-Healthcare-Settings-and-Programs.pdf (page 32, Additional Precaution Discharge Clean).</p> <ul style="list-style-type: none"> HD space & bathroom/commode is thoroughly cleaned <u>after each patient</u>. A disinfectant is used in addition to cleaner, unless using a combined cleaner/disinfectant. Sporicidal disinfectant is not necessary. 	

Algorithms attached:

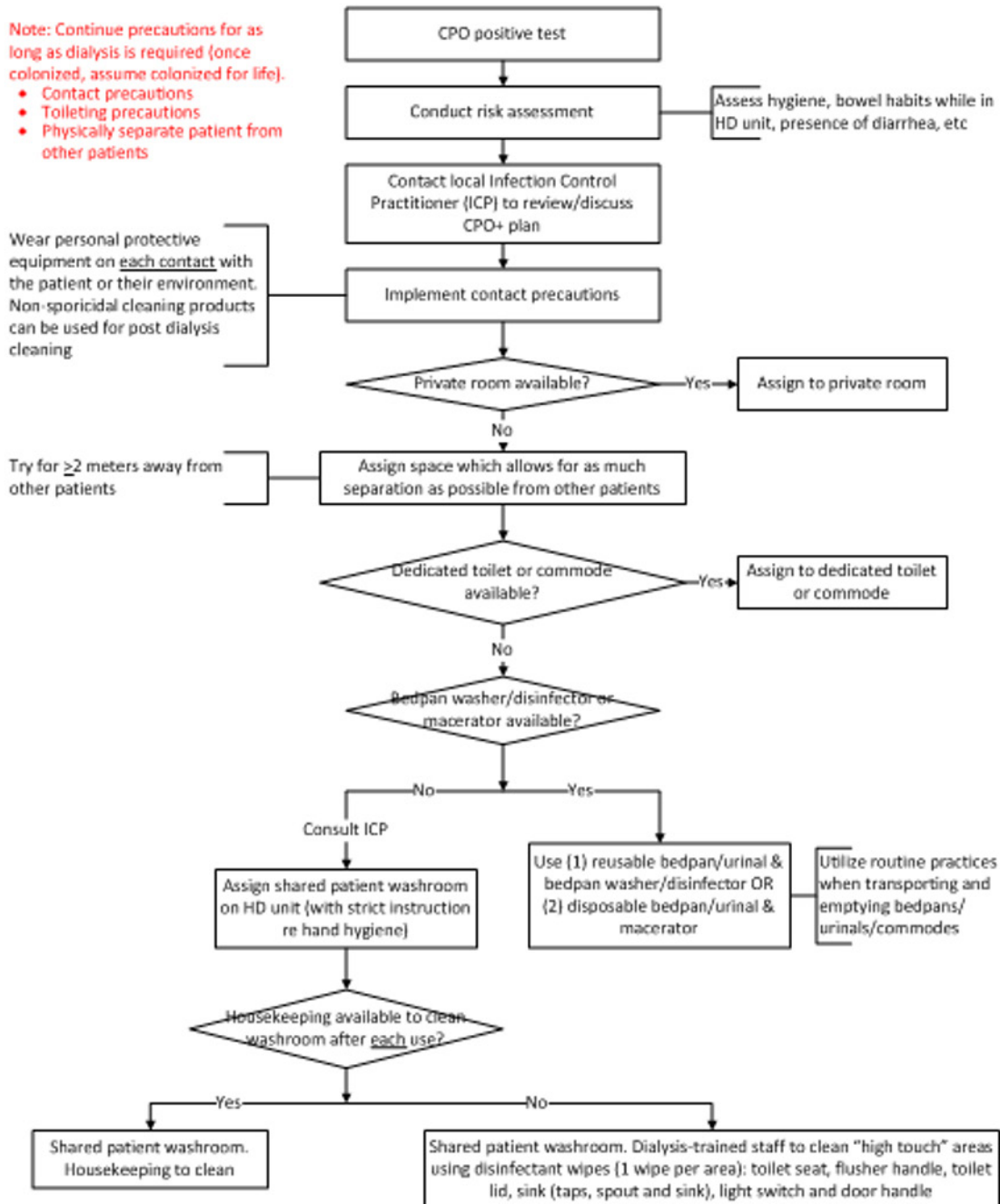
1. Algorithm: Management of Patients on Outpatient HD while Awaiting CPO Test Results
2. Algorithm: Management of Patients on Outpatient HD who are CPO Positive

Algorithm 1: Management of Patients on Outpatient HD while Awaiting CPO Test Results



Note about patients in Community Dialysis Units (CDUs):
 Most patients awaiting CPO test results can be accommodated in their "home unit" using these guidelines. Based on a risk assessment, patients feeling unwell or with active diarrhea may require transfer to an in-centre unit to accommodate patient specific isolation requirements and reduce the likelihood of transmission.

Algorithm 2: Management of Patients on Outpatient HD who are CPO Positive



Note about patients in Community Dialysis Units (CDUs):
Most patients who are CPO+ can be accommodated in their "home unit" using these guidelines. Based on a risk assessment, patients feeling unwell or with active diarrhea may require transfer to an in-centre unit to accommodate patient specific isolation requirements and reduce the likelihood of transmission.

3.0 References

Surveillance Protocol for Carbapenemase-Producing Organisms (CPOs) in BC, PICNet website. May 2019. www.picnet.ca/wp-content/uploads/Surveillance-Protocol-for-CPO-2014-08-11.pdf. Accessed March 19, 2019.

4.0 Sponsors

Developed by:

- A working group of multidisciplinary renal care providers and infection control practitioners/ medical microbiologists from across BC

Approved by:

- BCR Hemodialysis Committee (November 2019)
- BCR Medical Advisory Committee (November 2019)

For information about the use and referencing of BCR provincial guidelines/resources, refer to www.bcrenalagency.ca.