

HD Quality Indicator: VA Related Bloodstream Infections Entry of Data into PROMIS

January 27, 2023

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1.0 Context

The BC Hemodialysis Committee monitors key indicators essential to “best practice” hemodialysis (HD) care. The indicators are reported every 6 months (periods ending Mar 31 and Sept 30).

One of the key indicators is VA related bloodstream infections, defined as: ***Laboratory-confirmed VA-related bloodstream infections (bacteremias) in patients on chronic HD during a specified 6-month time period, sorted by access type (fistula, graft, catheter).***

This procedure provides a standardized process for defining/identifying VA related bloodstream infections (bacteremias) and entry of these infections into PROMIS.

2.0 Procedure for Entering VA Bloodstream Infections into PROMIS

Step	Details
1	<p>For patients with a suspected bloodstream infection, obtain two sets of two blood samples as per local HA procedures.</p> <p>Where possible, avoid drawing blood cultures from peripheral veins (unless unable to draw from the dialysis access).</p>
2	<p>Review blood cultures to determine whether patient has a bloodstream infection (regardless of the source).</p> <ul style="list-style-type: none"> • If both sets of cultures are positive, assume a bloodstream infection. • If one set of cultures is positive and one negative, discuss with the nephrologist/ID consultant. • If both sets of cultures are negative, assume no bloodstream infection. <p>See Section 3.0 in this guideline for options to identify patients having blood cultures drawn during a given period.</p>

Step	Details
3	<p>If the patient has a bloodstream infection, determine whether the infection is VA related.</p> <ul style="list-style-type: none"> Review the patient’s chart to identify other possible causes for the infection (e.g., UTI). Consult the patient’s nephrologist to (1) discuss treatment; and (2) confirm the causes of the infection (VA related or other).
4	<p>If the patient’s infection is VA related, enter the infection into PROMIS.</p> <p>Using the Assessment record, enter:</p> <ul style="list-style-type: none"> Assessment Date: Utilize the date the blood cultures were drawn. Assessment Type: “Problem” Assessment Reason: “Qualitative” signs of access problems, then “access related infection” Access Status: Status of the access the date the blood cultures were drawn. If unknown (and difficult to find out), enter “In Use.” Finding/Interpretation: “Infection Confirmed – Blood Culture” <div data-bbox="293 821 1403 1562" style="border: 1px solid #ccc; padding: 10px; margin: 10px 0;"> <p>Add VA Assessment</p> <p style="text-align: center;"> <input checked="" type="radio"/> Details <input type="radio"/> Assessment Items </p> <p>* Assessment Date 28-Jul-2022 <input type="text"/></p> <p>Assessment Type Problem <input type="text"/></p> <p>Assessment Reason Access Related Infection <input type="text"/></p> <p>* Access Status <input type="text"/></p> <p>Finding/Interpretation Infection Confirmed - Blood Culture <input type="text"/></p> <p>Action <input type="text"/></p> <p>Refer for Follow-Up <input type="text"/></p> <p>Refer for Follow-Up (2) <input type="text"/></p> <p>Assessed in Centre <input type="text"/></p> <p>Assessed in Unit <input type="text"/></p> <p>Assessed By <input type="text"/></p> <p>Assessed By Physician <input type="text"/></p> </div>
5	<p>Periodically pull PROMIS Report on VA Related Bloodstream Infections (check the box “Infection Confirmed – Blood Culture”) to (1) confirm all infections have been entered; and (2) confirm all entered infections are VA related (vs UTI). Refer to “VA Data Cleaning Procedure” document for specifics.</p>

Step	Details
	<div data-bbox="292 279 1424 310"> <p>PROMIS HOME REPORTS PATIENT LISTS MAINTENANCE CLASSIC SYSTEM MAINTENANCE EMERGENCY PLANNING HELP</p> </div> <div data-bbox="292 317 617 934"> <p>Centre Reports Worklist Reports</p> <p>Search List</p> <ul style="list-style-type: none"> ACP Report Centre Reports <ul style="list-style-type: none"> Current Dialysis Rx Report eGFR Priority Report General Data Entry QA GN Oral IS App Status Immunization Report KY Transplant Readiness Report Medication Change Report Patients with Registration Problems Renal Program Inpatient COVID-19 <ul style="list-style-type: none"> Dialysis Schedule/Labs Lab Results PCR Patient List PCR Population Questionnaire/Dialysis Runs Dialysis Access <ul style="list-style-type: none"> Access Procedure Appointment Booking Patient Access Review VA Access Monitoring VA Infection Rates VA Prevalence Report </div> <div data-bbox="617 317 1424 934"> <p>VA Infection Rates Report</p> <p>User ID MSHUM1</p> <p>Date Range 1M 3M 6M YTD 1Y 2Y 5Y</p> <p>* Start Date 17-Nov-2020</p> <p>* End Date 17-Nov-2021</p> <p>* Dialysis Centre All Centres</p> <p>* Patients Included All HD Patients</p> <p> <input type="checkbox"/> All <input checked="" type="checkbox"/> Infection Confirmed - Blood Culture <input type="checkbox"/> Infection Confirmed - Catheter Tip <input type="checkbox"/> Infection Confirmed - Dialysate <input type="checkbox"/> Infection Confirmed - Exit Site <input type="checkbox"/> Infection Confirmed - Historical data (prior to Feb 2007) <input type="checkbox"/> Signs of Localized Infection <input type="checkbox"/> Signs of Systemic Infection (Suspected secondary to access) </p> <p> <input type="checkbox"/> Show Patients <input type="checkbox"/> Show Patients with Infections ONLY <input type="checkbox"/> Show Patients with Cannulation methods ONLY <input type="checkbox"/> Group Fistula/Graft by method of Cannulation <input checked="" type="checkbox"/> Consolidate All HD Catheter Subtypes </p> </div>

3.0 Options for Identifying Patients Who Have Had Blood Cultures

This section provides potential ways to identify patients who have had blood cultures drawn during a given period (and require further analysis to determine whether culture was positive and, if so, if infection was VA related).

Option #1 (new): Utilize the Blood & Catheter Tip Culture Patient List¹ (PROMIS 4 main menu bar → Patient Lists → Blood & Catheter Tip Culture).

- Report displays results for in-centre and CDU patients with blood cultures analyzed at any BC lab (i.e., hospital or LifeLabs/Valley Labs) in all HAs *except* Interior and Northern Health.
- Efforts are underway to resolve the interface issues so all HAs, including Interior and Northern Health, will have access to this report.

Blood & Catheter Tip Culture

Primary Management Centre: All | Dialysis Centre: St. Paul's Hospital | Ordered by: Physician

* Lab Start Date: 02-Jul-2020 | * Lab End Date: 12-Aug-2022

List of Patients

View: 0 patients selected | Select All | Select None | EXCEL REPORT | ADD TO WORKLIST

LAST NAME	FIRST NAME	PHN	DOB	LATEST REPORTED BSI DATE	ACCESS	REPORTED BY	ACTION
<input type="checkbox"/>	ALI	MARINO	05-Dec-1969				Add Infection
<input type="checkbox"/>	ALI	NARGES	14-Feb-1954				Add Infection
<input type="checkbox"/>	BAINS	KASEY	22-Feb-1954				Add Infection
<input type="checkbox"/>	BAINS	VINH	06-Mar-1955				Add Infection

Page 1 of 14 (1-10 of 136 items) | 1 2 3 4 5 ... 14 >

Patient's Catheter Tip & Blood Culture Results - ALI, MARINO - 05-Dec-1969

View: EXCEL REPORT

LAB VISIT DATE/TIME	BATTERY NAME (SPECIMEN ID)	TEST NAME	LAB VALUE	COMMENTS
23-Jul-2021 00:00	Blood Culture (66303332)	Specimen Description	Request Credited Test cancelled by ward or doctor	
		Special requests	Request Credited Test cancelled by ward or doctor	
16-Dec-2020 03:43	Blood Culture (62645071)	Result	No growth after 7 days of incubation	
		Report status	Final 23/Dec/2020	
		Specimen Description	Blood	
		Special requests	PLEASE DRAW PERIPHERALLY	
15-Dec-2020 20:57	Blood Culture (62642207)	Result	No growth after 7 days of incubation	
		Report status	Final 22/Dec/2020	

Option #2: HA renal program to work out a system with HA lab to send list of chronic HD patients who have had blood culture tests within a specified period to VA RN (or designate).

- Will work for in-centre patients and for CDU patients **if** blood culture was analyzed in a HA lab.
- Will not work for CDU patients **if** blood culture was analyzed in LifeLabs/Valley Labs. Would need to work out an alternative plan (e.g., option #4) for these units.

Option #3: HA renal programs to work out system with HA pharmacy to send list of chronic HD patients who started on antibiotics within a specified period to VA RN (or designate).

- Will work for in-centre patients, although Pharmacy is not always aware of antibiotics if given from ward stock (which would then require a manual system for centres to send this information to pharmacy).
- Will not work for CDU patients. Would need to work out an alternative plan (e.g., option #4) for these units.

Option #4: Request in-centre units & CDUs forward a copy of the pre-printed order sheet (or standard MD/NP order sheet) to the VA RN (or designate) for all patients in whom blood cultures have been ordered.

- Will work for in-centre patients and for CDU patients as long as pre-printed order sheet is forwarded to the VA RN (or designate).
- This method is less likely to accurate as it relies on manual processes and involves multiple staff.

4.0 References

1. Pelletier FQ, Joarder M, Poutanen SM, Lok CE. Evaluating Approaches for the Diagnosis of Hemodialysis Catheter–Related Bloodstream Infections. *CJASN*. 2016;11(5):847-854. doi:10.2215/CJN.09110815

5.0 Sponsors

Developed by:

- BC Vascular Access Educators Group

Reviewed by:

- HD/QI Working Group (meeting held on July 20, 2022)

Approved by:

- BC Hemodialysis Committee (Nov 16, 2022)
- Renal Educators Group (Jan 4, 2023)