

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

January 27, 2023

#### **Contents**

1.0	Context	1
2.0	Procedure for Entering VA Bloodstream Infections into PROMIS	1
	Options for Identifying Patients Who Have Had Blood Cultures	
	References	
5.0	Sponsors	5

#### 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.

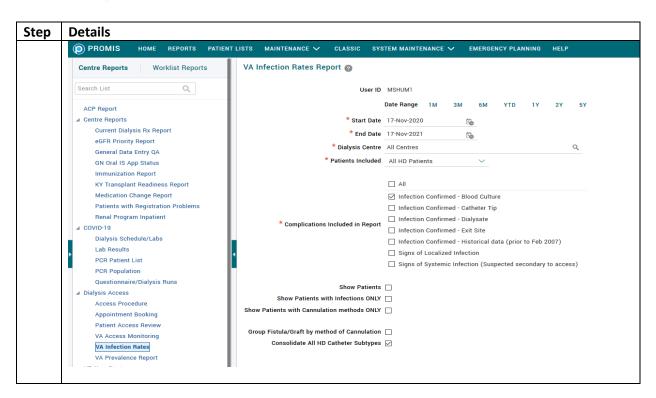
## 2.0 Procedure for Entering VA Bloodstream Infections into PROMIS

Step	Details
1	For patients with a suspected bloodstream infection, obtain two sets of two blood samples as per local HA procedures.
	Where possible, avoid drawing blood cultures from peripheral veins (unless unable to draw from the dialysis access).
2	Review blood cultures to determine whether patient has a bloodstream infection (regardless of the source).
	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.
	See Section 3.0 in this guideline for options to identify patients having blood cultures drawn during a given period.



### Step **Details** If the patient has a bloodstream infection, determine whether the infection is VA related. 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 If the patient's infection is VA related, enter the infection into PROMIS. Using the **Assessment record**, enter: 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" Add VA Assessment Details Assessment Items \* Assessment Date 28-Jul-2022 10 Assessment Type Problem Assessment Reason Access Related Infection Q \* Access Status Finding/Interpretation Infection Confirmed - Blood Culture Q Refer for Follow-Up Q Refer for Follow-Up (2) Q Assessed in Centre Q Assessed in Unit Assessed By Assessed By Physician Q 2 5 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.





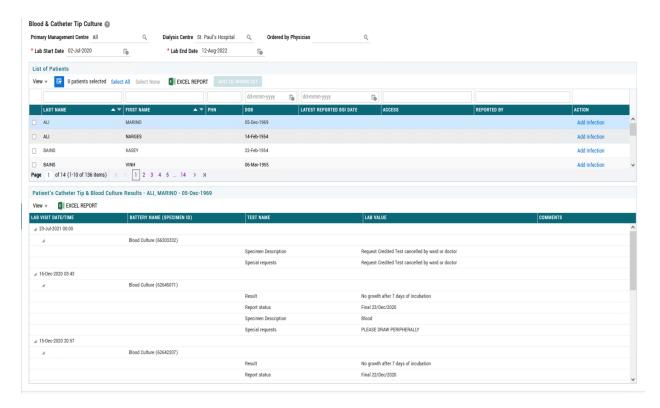


## 3.0 Options for Identifying Patients Who Have Had Blood Cultures

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 List<sup>1</sup> (PROMIS 4 main menu bar  $\rightarrow$  Patient Lists  $\rightarrow$  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.



**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

 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)