

# PROVINCIAL STANDARDS & GUIDELINES



## Hemodialysis/Peritoneal Dialysis Guideline: Methicillin-Resistant Staphylococcus Aureus (MRSA) & Vancomycin-Resistant Enterococcus (VRE)

Created June 2018; Updated May 2020  
Approved by the BC Renal Peritoneal Dialysis and Hemodialysis Committees



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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](http://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

Applicability:

- In centre and community hemodialysis (HD) units and peritoneal dialysis (PD) units (not applicable to patients receiving HD on an inpatient basis)
- Adults and children (modifications for children noted in the body of the guideline)

This guideline provides recommendations on the screening, surveillance and prevention of Methicillin-resistant Staphylococcus aureus (MRSA) and vancomycin-resistant enterococcus (VRE).

## 2.0 Recommendation

**Recommendation #1: Implement the recommendations on [Table 1 \(pg 3\)](#) for the screening, surveillance and prevention of MRSA and VRE.**

## 3.0 References

Antibiotic Resistant Organisms: Prevention and Control Guidelines for Healthcare Facilities (2013). Provincial Infection Control Network of BC (PICNet), [www.picnet.ca/wp-content/uploads/PICNet\\_ARO\\_Guidelines\\_March2013.pdf](http://www.picnet.ca/wp-content/uploads/PICNet_ARO_Guidelines_March2013.pdf)

Association for Professionals in Infection Control and Epidemiology, Guide to the Elimination of Infections in Hemodialysis (2010). [www.apic.org/Resource\\_/EliminationGuideForm/7966d850-0c5a-48ae-9090-a1da00bcf988/File/APIC-Hemodialysis.pdf](http://www.apic.org/Resource_/EliminationGuideForm/7966d850-0c5a-48ae-9090-a1da00bcf988/File/APIC-Hemodialysis.pdf).

Government of South Australia, Statewide Renal Clinical Network, Clinical Guideline: Vancomycin Resistant Enterococci (VRE) and Methicillin Resistant Staphylococcus aureus (MRSA) Screening and Management in the Adult Renal Patient Population Clinical Guideline (2014), p. 1 - 21.

[www.sahealth.sa.gov.au/wps/wcm/connect/628a1d80428250d7959cbf182b8de443/VRE+and+MRSA+Screening+and+Mgt\\_Nov2014](http://www.sahealth.sa.gov.au/wps/wcm/connect/628a1d80428250d7959cbf182b8de443/VRE+and+MRSA+Screening+and+Mgt_Nov2014).

Guidelines for the Management of Community-Associated Methicillin-Resistant Staphylococcus aureus (CA-MRSA)-related Skin and Soft Tissue Infections in Primary Care (no date), BC Centre for Disease Control, <http://www.bccdc.ca/resource-gallery/Documents/Statistics%20and%20Research/Statistics%20and%20Reports/Epid/Antibiotics/MRSAguidelineFINALJuly7.pdf>

Jardine, Meg. Kidney Health Australia (KHA) and Caring for Australasians with Renal Impairment (CARI), Guideline– Screening and management of infectious diseases in haemodialysis units, DNT Workshop, South Australia, Feb 26 - 28, 2017. [www.nephrology.edu.au/committees/documents/DNT\\_MRO\\_BBV\\_v3.pdf](http://www.nephrology.edu.au/committees/documents/DNT_MRO_BBV_v3.pdf)

Universal Screening for Antibiotic-Resistant Organisms: A Review of the Clinical and Cost-Effectiveness (2015). Rapid Response Report: Summary with Critical Appraisal, Canadian Agency for Drugs and Technologies in Health. [www.cadth.ca/universal-screening-antibiotic-resistant-organisms-review-clinical-and-cost-effectiveness](http://www.cadth.ca/universal-screening-antibiotic-resistant-organisms-review-clinical-and-cost-effectiveness)

## 4.0 Sponsors

This BCR 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](http://www.bcrenalagency.ca) for the most recent version.

Developed by:

- A working group of multidisciplinary renal care providers (nephrologists, nurses and pharmacists) and infection control practitioners (physicians, medical microbiologists and nurses) from across BC

Approved by:

- BC Renal Hemodialysis Committee (May 2018)
- BC Renal Medical Advisory Committee (June 2018)
- BC Renal PD Medical Director (May 2020)

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**Table 1: Recommendations for the Screening, Surveillance & Prevention of MRSA & VRE**

TOPIC	SPECIFICS	METHICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS (MRSA)	VANCOMYCIN-RESISTANT ENTEROCOCCI (VRE)
Screening (new & existing patients)	When to swab/test?	Swab: <ul style="list-style-type: none"> <li>Clinical indications (e.g., discharging wound, exit site infection, bacteremia)</li> </ul> No need to swab: <ul style="list-style-type: none"> <li>On HD/PD start</li> <li>Annually while on HD/PD</li> <li>After discharge from inpatient/rehab unit</li> <li>Upon return from travel from within or outside BC</li> </ul>	Same as MRSA
	What to order?	MRSA screen	VRE screen
	What to swab?	To identify MRSA colonization, swab: <ol style="list-style-type: none"> <li>Anterior nares</li> <li>Perineum</li> <li>Open wounds, if any</li> </ol> Note: In patients with open wounds, swabbing the anterior nares and the perineum in addition to the wound will more consistently identify MRSA colonized patients (patient may be MRSA colonized but MRSA is not present in the wound). Identifying MRSA colonized patients may influence the choice of antibiotics used to treat the wound.	Rectal swab with fecal staining
Prevention of disease transmission	Transmission-based precautions	If suspected or confirmed infection: <ul style="list-style-type: none"> <li>Adults: Routine practices (refer to BCPRA guideline<sup>1</sup>);</li> <li>Children: Contact precautions:</li> </ul> PLUS <ul style="list-style-type: none"> <li>Risk assessment for additional precautions<sup>2</sup> (e.g., discharging wound that cannot be contained by a dressing).</li> </ul> If known to be colonized: <ul style="list-style-type: none"> <li>Same as above.</li> </ul>	Same as MRSA

Continued on next page

<sup>1</sup> Refer to BCR guideline “Prevention of Disease Transmission in HD Units - Routine Practices”

<sup>2</sup> Refer to <https://www.picnet.ca/resources/posters/precaution-signs>

TOPIC	SPECIFICS	METHICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS (MRSA)	VANCOMYCIN-RESISTANT ENTEROCOCCI (VRE)
Prevention of disease transmission cont'd	Segregation	No specific requirements.	No specific requirements.
	Staff assignments	No specific requirements.	No specific requirements.
	Surface disinfection of dialysis station	Usual procedure. <sup>3</sup>	Usual procedure <sup>3</sup>
	Housekeeping cleaning	No specific requirements.	No specific requirements.
HD/PD unit surveillance		As needed: Unit has MRSA outbreak or high prevalence of infections related to MRSA.	Same as MRSA.

<sup>3</sup> Refer to BCR guideline Prevention of Disease Transmission in HD Units - Minimum Standards for All Patients - Surface Disinfection of Dialysis Station at <http://www.bcrenalagency.ca/resource-gallery/Documents/Prevention%20of%20Disease%20Transmission%20in%20HD%20Units.pdf>