

Use of Personal Protective Equipment (PPE) for VA-Related Activities during the COVID-19 Outbreak

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This document addresses “safe practice” for the use of PPEs during vascular-access (VA) related activities **when supply is limited**. VA-related activities include hook ups, take offs and Tego/dressing changes. It is intended for consideration by BC health authorities (HAs) as they establish HA-specific standards.

Principles for minimizing the use of PPEs during VA-related procedures:

1. As appropriate to the patient’s circumstances, utilize Tegaderm dressings over gauze dressings (less frequent dressing changes required).
2. Perform Tego and dressing changes at the beginning of a patient’s HD run (to allow same set of PPEs to be used).
3. During a COVID outbreak, cohort patients as follows:
 - a. COVID-19 positive patients: Place each patient in a separate room if available; if not possible maintain at least 2 metres between patients. Droplet/contact precautions. Seek HA direction re changing PPEs between patients (to protect against the potential for different strains of COVID-19).
 - b. Patients under investigation for COVID-19 (with symptoms): Maintain at least 2 metres between patients. Preemptive management on droplet/contact precautions. Seek HA direction re changing PPEs between patients (to protect patients who turn out to be COVID negative against patients who turn out to be COVID positive).
 - c. Patients in close contact with a known or suspected COVID-19 positive person (asymptomatic): Manage as per group (b) above.
 - d. Patients from long-term care facilities with active outbreak (asymptomatic): Manage as per group (b) above.
 - e. Patients not under investigation for COVID-19: Try to maintain at least 2 metres between patients. Face protection and gowns may be used for multiple patients (see Tables 1 and 2).
 - f. Patients from long-term care facilities with no active outbreak (asymptomatic): Separate patients from different long-term care facilities (to protect against spread across facilities). Manage as per patients not under investigation for COVID-19.

Table 1: Summary of PPE Use for VA-Related Procedures

PPE		During COVID-19 Outbreak “Safe Practice” during VA-Related Activities	
		Patients Not Under Investigation for COVID-19	COVID Positive, Patients under Investigation or On Droplet Precautions
Patients	Surgical mask	X (unless extenuating circumstances)	✓ at all times when in patient care area

PPE		During COVID-19 Outbreak "Safe Practice" during VA-Related Activities	
		Patients Not Under Investigation for COVID-19	COVID Positive, Patients under Investigation or On Droplet Precautions
Staff	Face protection	✓ at all times when in patient care area	✓ at all times when in patient care area
	Gown	✓ during hook ups, take offs and dressing changes	✓ on every patient contact or within 2 meters of patient
	Gloves & hand hygiene	✓ every patient hook-up and take off. <ul style="list-style-type: none"> • Seek HA direction re use of gloves for other patient encounters (e.g., taking a pulse, touching side table) 	✓ on every patient contact or within 2 meters of patient

Table 2: Details of PPE Use for VA-Related Procedures

Who	Protection	"Best Practice" (BCR Guideline ¹)	During COVID-19 Outbreak – "Safe Practice" during VA-Related Activities	
			Patients Not Under Investigation for COVID-19	COVID Positive, Patients under Investigation or On Droplet Precautions
Patients	Surgical mask	During initiation and discontinuation of dialysis treatment if accessing a hemodialysis catheter.	<p>Surgical mask: Not required for hook ups, take offs or Tego and dressing changes, unless:</p> <ul style="list-style-type: none"> • Patient is unreliable to keep head turned away. • Patient has had recent close contact with a COVID-19 positive person. • Patient has a cough or other respiratory symptoms. • Patient is on droplet precautions for non-COVID-related reasons. • Patient is immunocompromised (e.g., neutropenic). <p>Ask patient to turn head away from access and enforce "no talk" during procedure.</p>	<p>Surgical mask:</p> <ul style="list-style-type: none"> • Required at all times (one mask for duration of time in HD unit).
Staff	<p>Face protection:</p> <ul style="list-style-type: none"> • Surgical mask & goggles • Surgical mask with visor attachment 	<p>Wear face protection:</p> <ul style="list-style-type: none"> • During initiation and discontinuation of dialysis. • When removing the dialyzer and cleaning the equipment used during dialysis. • When within 1.8 metres (6 feet) of an unmasked coughing patient. 	<p>Mask:</p> <ul style="list-style-type: none"> • Wear mask at all times when in patient care area. • Change mask if soiled/dirty, when hard to breathe through & at breaks/end of shift. Discard (do not reuse) mask after removal. • Mask does not have to be changed between patients. <p>Eye protection (visor or goggles):</p>	<p>Mask:</p> <ul style="list-style-type: none"> • Same as for patients not under investigation. • Seek HA direction re need to change mask after caring for patients who are under investigation for COVID or COVID positive. <p>Eye protection (visor or goggles):</p>

¹ www.bcrenalagency.ca/resource-gallery/Documents/Prevention%20of%20Disease%20Transmission%20in%20HD%20Units.pdf

Who	Protection	"Best Practice" (BCR Guideline ¹)	During COVID-19 Outbreak – "Safe Practice" during VA-Related Activities	
			Patients Not Under Investigation for COVID-19	COVID Positive, Patients under Investigation or On Droplet Precautions
	<ul style="list-style-type: none"> Surgical mask with face shield 	Discard mask between patients. Clean and disinfect eye protection between uses as indicated (e.g., blood splatter).	<ul style="list-style-type: none"> Wear eye protection at all times when in patient care area. Clean/disinfect eye protection when visibly soiled, after a blood splatter & at breaks/end of shift. Eye protection can be reused for multiple shifts/staff (after cleaning/disinfecting). Eye protection does not have to be cleaned between patients. 	<ul style="list-style-type: none"> Same as for patients not under investigation. Seek HA direction re need to change/disinfect eye protection after caring for patients who are under investigation for COVID or COVID positive.
	Gowns	<p>Wear a gown:</p> <ul style="list-style-type: none"> During initiation and discontinuation of dialysis. When there is a likelihood of blood contact. When there is a likelihood of body fluid contact. e.g., diarrheal illnesses, uncontrolled secretions, draining wounds, stool incontinence and ostomy tubes and bags. When removing the dialyzer and cleaning the equipment used during dialysis. <p>Gown should cover arms and be closed in front. Discard (or change) gown between patients.</p>	<p>Gown:</p> <ul style="list-style-type: none"> Wear gown (reusable or disposable) during hook ups, take offs and Tego and dressing changes (as per "best practice" guideline in column to the left). Gown can be used for hook ups of multiple patients (same for take offs). Laundry or discard gowns after removal (do not reuse). Change between patients if soiled/dirty. Gown should cover arms and be closed in front. If gown does not cover arms, wash arms (and hands) following each patient hook up or take off. If gown is not available, may substitute disposable plastic aprons. 	<p>Gown:</p> <ul style="list-style-type: none"> Wear gown (reusable or disposable) on every patient contact or within 2 meters of patient. Seek HA direction re need to change gown after caring for patients who are under investigation for COVID or COVID positive. Laundry or discard gowns after removal (do not reuse). Prioritize these patients for use of gowns which cover arms.
	Gloves & hand hygiene	<p>Perform hand hygiene:</p> <ul style="list-style-type: none"> Whenever moving from one patient or machine to another. 	<p>Gloves:</p> <ul style="list-style-type: none"> Do hand hygiene and don clean gloves for every patient hook up and take off. 	<p>Gloves:</p> <ul style="list-style-type: none"> Do hand hygiene and don clean gloves on every patient contact or when within 2 meters of patient.

			During COVID-19 Outbreak – “Safe Practice” during VA-Related Activities	
Who	Protection	“Best Practice” (BCR Guideline ¹)	Patients Not Under Investigation for COVID-19	COVID Positive, Patients under Investigation or On Droplet Precautions
		<p>Wear gloves:</p> <ul style="list-style-type: none"> • During initiation and discontinuation of dialysis. • When touching the patient's medical equipment or handling lab specimens or used dialyzers. • When cleaning machines, cleaning stations, or wiping up blood or other body fluid spills. • To cannulate a patient's access. • When moving from a dirty to a clean site/task on the same patient (i.e., new gloves should be donned after touching the HD machine, prior to touching the same patient's VA). <p>Removal of gloves should always be followed with hand hygiene.</p>	<ul style="list-style-type: none"> • Seek HA direction re use of gloves for other patient encounters (e.g., taking a pulse, touching side table) 	

References:

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