

Prevention of Disease Transmission in HD Units

Routine Practices

The table on the next page identifies **routine practices** recommended as minimum standards for prevention of disease transmission when caring for HD patients. Adaptations to these routine practices may be appropriate for individual patients following a risk assessment (e.g., for some patients, face protection may not be required).

Routine practices represent minimum standards for the use of Personal Protection Equipment (PPEs). **Additional precautions** may also be required (contact¹, contact plus, droplet, droplet + contact, airborne, airborne + contact). Refer to <https://www.picnet.ca/resources/posters/precaution-signs> for details on additional precautions.

¹ While contact and contact plus precautions are similar to routine practices, contact and contact plus precautions require PPE's to be worn on each contact with the patient or their environment. Routine practices limit the precautions to specific times when direct care is being provided, based upon risk assessment.

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>.

Who	Protection	Routine Practices
Patients	Mask	<ul style="list-style-type: none"> • During initiation and discontinuation of dialysis treatment if accessing a hemodialysis catheter (to prevent contamination of the access by the patient). • When experiencing symptoms of an upper respiratory illness.
Staff	Face protection: <ul style="list-style-type: none"> • Mask with visor • Mask & eye protection (goggles) 	Wear face protection: <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>Discard mask between patients. Clean and disinfect eye protection between uses as indicated (e.g., blood splatter).</p>
	Gowns	Wear a gown: <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>
	Gloves & hand hygiene	Perform hand hygiene: <ul style="list-style-type: none"> • Whenever moving from one patient or machine to another. Wear gloves: <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>

Preparation for Surface Disinfection of the Dialysis Station

- Gather supplies including:
 - Personal protective equipment (PPE): gown, mask with visor (or mask and eye protection such as goggles) and clean gloves.
 - Properly diluted hospital disinfectant (with a DIN number from Health Canada) and wipes/clothes (separate wipe(s)/cloth(s) per machine).
 - Biohazard disposal container(s)
- Perform hand hygiene.²
- Put on gown, mask with visor (or mask and eye protection such as goggles) and clean gloves.
- Disconnect and takedown used blood tubing and dialyzer from the dialysis machine.
- Discard tubing and dialyzers in a leak-proof container (container is brought to the dialyzer station or is placed as near to the station as is practical as part of the supply set-up in step 1).
- Check that there is no visible soil or blood on surfaces.
- If drain bag is still hanging, remove bag and empty in the soiled utility area.
- Ensure that the patient has left the dialysis station.
 - Patients should not be removed from the station until they have completed treatment and are clinically stable.
 - If a patient cannot be moved safely, delay routine disinfection of the dialysis station.
 - If patients are moved to a separate seating area prior to removing cannulation needles or while trying to achieve hemostasis, disinfect the chairs and armrests in those areas in between patients.
- Discard all single-use supplies. Move any reusable supplies (e.g., clamps) to an area where they will be cleaned and disinfected before being stored or returned to a dialysis station. This may occur before or after the patient has left the station.
- Remove gloves and perform hand hygiene.

Change all personal protective equipment between the cleaning of each dialysis station.

² Perform hand hygiene at the beginning of this process, at the end and at any point there is a contamination.

Surface Disinfection of the Dialysis Station

- Perform hand hygiene and don clean gloves.³
- Using a wiping motion (with friction), disinfect all surfaces in the dialysis station in contact with the patient and/or staff. e.g., dialysis chair or bed; tray tables; blood pressure cuffs; countertops; keyboard, etc. Put on gown, mask with visor (or mask and eye protection such as goggles) and clean gloves.
- Clean dialysis machine from top to bottom.
 - If visible contaminant on the machine, wipe off using an absorbent material.
 - Clean the machine using wipes/cloths with a disinfectant that is acceptable to the HD machine manufacturer and the HA renal program/infection control.
 - Remove excess fluid from the wipes/cloth(s) prior to using to clean machine.
 - Clean the monitor.
 - If available on machine, activate the wipe screen option (pauses the screen).
 - If any residue remains after cleaning, wipe down screen with a clean, dry cloth.
 - Clean the top of the machine.
 - If the machine has a door(s), clean the front first, then the insides of the doors.
 - Clean all components of the main interface (screen) and the back of the machine* unless recommended otherwise by the manufacturer. e.g., sensors and optical detectors.
 - Clean exposed surfaces of dialysate, concentrate, and bicarb connectors.
 - Clean each side of machine.
 - Clean the area between the main interface (screen) and brakes, including the shelf.
 - Clean the brakes.
 - * Frequency of cleaning back of machine is as per HA protocol.
- Ensure surfaces are visibly wet with disinfectant but not dripping. Allow surfaces to air-dry. Air-drying is recommended to allow for sufficient contact time with the disinfectant.
- Remove gloves, gown and mask with visor (or mask and eye protection such as goggles).
- Perform hand hygiene.

Do not bring patient or clean supplies to station until these steps have been completed.

References:

1. Checklist: Dialysis Station Routine Disinfection. Centers for Disease Control and Prevention National Center for Emerging and Zoonotic Infectious Diseases. www.cdc.gov/dialysis/checklist.
2. Fresenius “Cleaning the 5008 CorDiax: General External Cleaning Instructions.”

³Perform hand hygiene at the beginning of this process, at the end and at any point there is a contamination.