Guideline: Novel coronavirus (COVID-19) for Hemodialysis Outpatients
WORKING COPY June 3, 2020

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1.0 Scope of Guideline

Applicability: In centre and community hemodialysis (HD) units in BC.

This guideline provides recommendations on the screening, assessment and management of patients in outpatient hemodialysis units for COVID-19. It also provides guidance for protecting physicians and staff who provide hemodialysis care.

2.0 Recommendations


Recommendation #2: Allied health professionals (e.g., Dietitians, Social Workers, Pharmacists) are advised to limit their physical presence in the patient care area of an HD unit:

- Virtual or remote patient care (e.g., telephone, video, e mail, mail) is encouraged, whenever possible.
- Physical presence in the patient care area of an HD unit should be kept for specific patient interactions where virtual care is less optimal or not possible.
- While in the patient care area of an HD unit, a mask and eye protection is required. Clothes worn while working in the HD unit should be removed before leaving work and cleaned, before using again (refer to recommendation #1).

Recommendation #3: Implement the recommendations on Table 1 and Algorithm 1 for the screening, assessment and management of hemodialysis outpatients for COVID-19.
Table 1: Recommendations for the Screening, Assessment & Follow-Up of COVID-19

<table>
<thead>
<tr>
<th>Topic</th>
<th>Specifics</th>
<th>COVID-19</th>
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</thead>
</table>
| Refer to Algorithm 1 | | If patient contacts the HD unit to report they are symptomatic:  
  - If feasible, suggest patient contact their primary care provider, local public health office or 8-1-1 for assessment and testing.  
  - If not feasible, follow the screening procedure below. |
| | | BEFORE setting patient up at the HD station (every patient and every hemodialysis (HD) run), identify patients who:  
  - Report flu/COVID-19 symptoms or have a fever (BCR screening questionnaire) [http://www.bcrenalagency.ca/health-professionals/clinical-resources/novel-coronavirus-(covid-19)]  
  - Were in close contact with known/suspected COVID-19 positive person within the past 14 days (BCR screening questionnaire).  
  - Returned from travel within the past 14 days from outside BC.  
  - Were discharged from an (1) inpatient/rehab unit or (2) outpatient HD unit in Canada (including BC) AND the unit is under investigation for ongoing COVID-19 transmission.  
  - Moved into an assisted living/long-term care facility within the past 14 days.  
  - Live in an assisted living/long-term care facility which has an active outbreak (refer to BCCDC website). |
| | | If patient has symptoms (including a fever >37.5°C) or has any of the risk factors listed above, provide patient with a mask and notify MD (or follow established HA protocol to identify infection control precaution and whether a swab is needed). |
| | Refer to Algorithm 1 for recommended swabbing and isolation protocols.  
  - Swab patients with COVID-19 symptoms and place on droplet/contact/toileting precautions (as per MD order or established HA protocol)  
  - Place patients who are asymptomatic but meet one or more of the risk factors identified above (close contact with COVID+ person, travelled outside Canada, discharged from unit with active COVID-19 outbreak, moved recently into assisted living/long-term care facility or lives in facility with active COVID-19 outbreak) on droplet/contact/toileting precautions for 14 days (MD/ICP |
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<tr>
<td></td>
<td>discretion). Swab if symptoms develop (as per MD order or established HA protocol).</td>
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<td>If a patient with symptoms tests negative and after 5 days:</td>
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<td></td>
<td>• Symptoms have resolved, discontinue precautions (precautions for 5 days). A repeat swab is not needed.</td>
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<td></td>
<td>• Symptoms persist, repeat the COVID-19 swab. Assume COVID-19 positive until symptoms resolve or two negative swabs have been received.</td>
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<td>For patients in the waiting room, attempt to separate as much as possible. Where physically possible, patients might opt to wait in a personal vehicle or outside the facility where they can be contacted by phone when it is their turn to be seen. To the extent possible, minimize the time patients spending in the waiting room.</td>
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<tr>
<td>What to order?</td>
<td>COVID-19 screen.</td>
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<td></td>
<td>NOTE: If COVID-19 is suspected, please indicate this on the requisition even if the requisition also includes testing for flu/RSV.</td>
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<tr>
<td>What to screen?</td>
<td>Nasopharyngeal swab</td>
<td></td>
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<tr>
<td></td>
<td>Utilize personal protective equipment while collecting the swab (gloves, gown, surgical/procedure mask and visor/goggles).</td>
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<tr>
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<th>While Awaiting Results of Swab</th>
<th>COVID-19 Positive Patients</th>
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<tbody>
<tr>
<td>Prevention of disease transmission</td>
<td>Precautions &amp; segregation</td>
<td>• Refer to Algorithm 1.</td>
<td>• Refer to Algorithm 1.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Contact local Infection Control Practitioner (ICP).</td>
<td>• Contact local ICP.</td>
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<tr>
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<td></td>
<td>• Assume COVID+ until proven otherwise (see right hand column for precautions).</td>
<td>• Implement droplet &amp; contact precautions² as per algorithm 2 including:</td>
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<td>• Provide patients with the Provincial Patient Handout¹ and mask prior leaving the HD unit.</td>
<td>• Personal protective equipment (mask, eye protection, gown and gloves) is worn on each contact with the patient or their environment.</td>
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<tr>
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<td></td>
<td>• Private room is preferred if available. If not possible, keep 2 metres between patients (minimum).</td>
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| Prevention of disease transmission cont’d | Precautions & segregation cont’d | • Contact family members to notify them of the testing & recommended precautions.  
• Encourage patient to arrange alternate forms of transportation to and from dialysis if they use HandyDART.  
• Tests results are usually available within 24-48 hrs (prior to next HD run). | • Discharge cleaning is done after patient leaves the unit. Non-sporicidal cleaning products can be used.  
• Implement toileting precautions as per Algorithm 2.  
• Encourage patient to arrange alternate forms of transportation home (or to long term care) from dialysis if they use HandyDART.  
• Public health will perform contact tracing on positive cases with involvement of workplace health for staff members deemed to be at risk as needed.  
• Droplet, contact and toileting precautions are continued until deemed safe by ICP to return to usual care. |

**Note about patients in Community Dialysis Units (CDUs):** Most patients awaiting COVID-19 test results can be accommodated in their “home unit” using these guidelines. Some units, however, will not have physical capacity to manage the droplet, contact and toileting precautions. In these cases, alternative arrangements will need to be made for patients to be tested and to receive dialysis in an in-centre or another CDU that can accommodate the infection control requirements. This relocation will be in effect until deemed safe by ICP to return to usual care.

**Note about patients in Community Dialysis Units (CDUs):** Most patients who are COVID-19+ can be accommodated in their “home unit” using these guidelines. Some units, however, will not have physical capacity to manage droplet, contact and toileting precautions. In these cases, arrangements will need to be made for patients to receive dialysis in an in-centre unit or another CDU that can accommodate the infection control requirements. This relocation will be in effect until deemed safe by ICP to return to usual care.
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<tr>
<td>Surface disinfection of HD station &amp; equipment post dialysis</td>
<td>Usual procedure: • Refer to BCR guideline Prevention of Disease Transmission in HD Units³ • In-centre units: Disinfection of the HD machine/supplies is usually done by dialysis-trained staff. Preparation for cleaning/disinfection of the HD station is also done by dialysis-trained staff but the actual cleaning/disinfection of the HD station is usually done by housekeeping staff. • Community-dialysis units: All cleaning/disinfection between patients is usually done by dialysis-trained staff. • Non-sporicidal cleaning products can be used for post-dialysis cleaning.</td>
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<td>Housekeeping cleaning</td>
<td>Additional Precaution Discharge Clean. • Refer to PICNet guideline &quot;BC Best Practices for Environmental Cleaning for Prevention and Control of Infections in All Healthcare Settings and Programs⁴</td>
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</tbody>
</table>

**Algorithms attached:**
1. Algorithm: Screening and Assessment of Hemodialysis Outpatients for COVID-19
2. Algorithm: Infection Control Precautions for Patients who Test Positive for COVID-19 OR are Awaiting Test Results

³ [www.bcrenalagency.ca/resource-gallery/Documents/Prevention%20of%20Disease%20Transmission%20in%20HD%20Units.pdf](http://www.bcrenalagency.ca/resource-gallery/Documents/Prevention%20of%20Disease%20Transmission%20in%20HD%20Units.pdf) (pages 3 and 4).
Algorithm 1: Screening and Assessment of HD Outpatients for COVID-19

Patient arrives for HD

BEFORE setting patient up at the HD station, identify patients who:
- Report flu/COVID-19 symptoms or have a fever (BCR screening questionnaire http://www.bcrenalagency.ca/health-professionals-clinical-resources/novel-coronavirus-(covid-19))
- Were in close contact with known/suspected COVID-19 positive person within the past 14 days (BCR screening questionnaire).
- Returned from travel within the past 14 days from outside BC.
- Were discharged from an (1) inpatient/rehab unit or (2) outpatient HD unit in Canada (including BC) AND the unit is under investigation for ongoing COVID-19 transmission
- Moved into assisted living/long-term care within the past 14 days.
- Live in an assisted living/long-term care facility with an active outbreak (refer to BCCDC website).

Flu/COVID-19 symptoms?
- Yes
  - Contact with COVID-19 positive person?
    - Yes
      - Provide patient with mask
      - Notify MD (or follow established HA protocol)
    - No
      - Can infection control precautions be met on this unit? (refer to algorithm 2)
        - Yes
          - Flu/COVID-19 symptoms?
            - Yes
              - Swab for COVID-19
              - Provide dialysis
              - Assume COVID-19+ (see algorithm 2)
              - Contact ICP
            - No
              - Culture results?
                - Positive
                  - Isolate patient with droplet/contact/toileting precautions x 14 days (MD/ICP discretion, depending on severity & closeness of contact)
                - Negative
                  - Provide dialysis
                  - Keep on droplet/contact/toileting precautions for:
                    - Minimum of 5 days or until symptoms resolve (whichever is longer)
                    - If close contact with COVID positive person, minimum of 14 days or until symptoms resolve (whichever is longer)
                  - Symptoms resolved?
                    - Yes
                      - Provide dialysis
                      - Keep on droplet/contact/toileting precautions
                      - Repeat swab. Maintain infection control precautions until receive 2 negative swabs
                    - No
                      - Swab for COVID-19
      - No
        - If symptoms present, advise patient to have swab for COVID-19 collected at alternative location
          - Arrange for dialysis at an HD unit which can accommodate the infection control requirements

- No
  - Provide dialysis
  - Keep on droplet/contact/toileting precautions for:
    - Minimum of 5 days or until symptoms resolve (whichever is longer)
    - If close contact with COVID positive person, minimum of 14 days or until symptoms resolve (whichever is longer)
  - Symptoms resolved?
    - Yes
      - Provide dialysis
      - Keep on droplet/contact/toileting precautions
      - Repeat swab. Maintain infection control precautions until receive 2 negative swabs
    - No
      - Swab for COVID-19

Note about patients in Community Dialysis Units (CDUs):
Most patients who are awaiting COVID-19 test results or who are COVID-19+ can be accommodated in their “home unit” using these guidelines. Some units, however, will not have physical capacity to manage droplet, contract and toileting precautions. In these cases, alternative arrangements will need to be made for patients to be tested and to receive dialysis in an in-centre or another CDU that can accommodate the infection control requirements. This relocation will be in effect until deemed safe by ICP to return to usual care.
Algorithm 2: Infection Control Precautions for Patients who Test Positive for COVID-19 OR are Awaiting Test Results OR At Higher Risk

Pt tests positive for COVID-19 OR is awaiting test results OR has been in close contact with suspected/known COVID-19+ person OR moved into assisted living/residential care facility within the past 14 days OR lives in assisted living/residential care facility with an active outbreak

- Personal protective equipment (mask, eye protection, gown and gloves) is worn on each contact with the patient or their environment.
- Private room is preferred if available. If not possible, keep 2 metres between patients (minimum).
- Discharge cleaning is done after patient leaves the unit. Non-sporicidal cleaning products can be used.
- Refer to BC Renal guideline Use of Personal Protective Equipment (PPE) for VA-Related Activities during the COVID-19 Outbreak

**NOTE:**
If these infection control requirements cannot be met, alternative arrangements will need to be made for patients to be tested and to receive dialysis in an in-centre or CDU that can accommodate the requirements. This relocation will be in effect until deemed safe by the ICP to return to usual care.
3.0 References


4.0 Sponsors

This BCPRA 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.

Developed by:
- A working group of multidisciplinary renal care providers and infection control practitioners/medical microbiologists from across BC (updated Mar 27, 2020 and additional feedback provided via e mail in May 2020)

Approved by:
- BC Clinical Guidelines Review Committee (Medical Health Officers of BC and PICNet) (March 16, 2020)
- BC Renal Hemodialysis Committee (March 18, 2020 and May 13, 2020)
- BC Renal Medical Directors (May 28, 2020)

For information about the use and referencing of BCPRA provincial guidelines/resources, refer to www.bcrenalagency.ca.