# Ontario Renal Network – Regional Renal Program COVID-19 Calls

Meeting Minutes

May 8, 2020

***For completeness of notes, meeting minutes are cumulative and key discussion points from previous weeks are included, but have been italicized/greyed out.***

## Purpose

The Ontario Renal Network (ORN) is setting up regular, optional calls with the administrative and medical leadership of each of the 27 Regional Renal Programs (RRPs). The purpose of the calls is to facilitate information exchange amongst RRPs on approaches for patients with CKD, in particular the dialysis population. To date, there have been 10 general ORN-RRP information sharing call and 3 issues specific calls.

ORN's role is not to interfere with hospital protocols nor to provide infection control direction. The role of the ORN is to provide support to the network through rapid information sharing, gathering, and dissemination.

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# ORN-RRP Call Log

## COVID-19 Information Calls

| CALL NUMBER | DATE | TIME | TITLE | MEETING CHAIR(S) | ATTENDEES |
|---|---|---|---|---|---|
| 01 | March 10th | 10 – 11 AM | Regional Renal Program call re: COVID-19 | Dr. Peter Blake, ORN Provincial Medical Director<br>Rebecca Cooper, Director, Clinical Programs, ORN | RRP Directors<br>RRP Nephrology Division Heads<br>ORN Regional Directors<br>ORN Regional Medical Leads<br>ORN Provincial Medical Leads |
| 02 | March 11th | 1 – 2 PM | Regional Renal Program call re: COVID-19 | Dr. Peter Blake, ORN Provincial Medical Director<br>Rebecca Cooper, Director, Clinical Programs, ORN | RRP Directors<br>RRP Nephrology Division Heads<br>ORN Regional Directors<br>ORN Regional Medical Leads<br>ORN Provincial Medical Leads |
| 03 | March 12th | 9 – 10 AM | Regional Renal Program call re: COVID-19 | Dr. Peter Blake, ORN Provincial Medical Director<br>Rebecca Cooper, Director, Clinical Programs, ORN | RRP Directors<br>RRP Nephrology Division Heads<br>ORN Regional Directors<br>ORN Regional Medical Leads<br>ORN Provincial Medical Leads |
| 04 | March 16th | 12 – 1 PM | ORN - Voluntary call for Regional Renal Programs re COVID-19 | Dr. Peter Blake, ORN Provincial Medical Director<br>Rebecca Cooper, Director, Clinical Programs, ORN | RRP Directors<br>RRP Nephrology Division Heads<br>ORN Regional Directors<br>ORN Regional Medical Leads<br>ORN Provincial Medical Leads |
| 05 | March 17th | 11 AM – 12 PM | Regional Renal Program call re: COVID-19 | Dr. Peter Blake, ORN Provincial Medical Director<br>Rebecca Cooper, Director, Clinical Programs, ORN | RRP Directors<br>RRP Nephrology Division Heads<br>ORN Regional Directors<br>ORN Regional Medical Leads<br>ORN Provincial Medical Leads |
| 06 | March 20th | 1 – 2 PM | Regional Renal Program call re: COVID-19 | Dr. Peter Blake, ORN Provincial Medical Director<br>Rebecca Cooper, Director, Clinical Programs, ORN | RRP Directors<br>RRP Nephrology Division Heads<br>ORN Regional Directors<br>ORN Regional Medical Leads<br>ORN Provincial Medical Leads |

| CALL NUMBER | DATE | TIME | TITLE | MEETING CHAIR(S) | ATTENDEES |
|---|---|---|---|---|---|
| 07 | March 24th | 10 – 11 AM | Regional Renal Program call re: COVID-19 | Dr. Peter Blake, ORN Provincial Medical Director<br>Rebecca Cooper, Director, Clinical Programs, ORN | RRP Directors<br>RRP Nephrology Division Heads<br>ORN Regional Directors<br>ORN Regional Medical Leads<br>ORN Provincial Medical Leads<br><br>50+ attendees |
| 09 | March 26th | 2 – 3 PM | Regional Renal Program call re: COVID-19 | Dr. Peter Blake, ORN Provincial Medical Director<br>Rebecca Cooper, Director, Clinical Programs, ORN | RRP Directors<br>RRP Nephrology Division Heads<br>ORN Regional Directors<br>ORN Regional Medical Leads<br>ORN Provincial Medical Leads<br><br>60+ attendees |
| 11 | March 30th | 1 – 2 PM | Regional Renal Program call re: COVID-19 | Dr. Peter Blake, ORN Provincial Medical Director<br>Rebecca Cooper, Director, Clinical Programs, ORN | RRP Directors<br>RRP Nephrology Division Heads<br>ORN Regional Directors<br>ORN Regional Medical Leads<br>ORN Provincial Medical Leads<br><br>90+ attendees |
| 13 | April 2nd | 11 AM – 12 PM | Regional Renal Program call re: COVID-19 | Dr. Peter Blake, ORN Provincial Medical Director<br>Rebecca Cooper, Director, Clinical Programs, ORN | RRP Directors<br>RRP Nephrology Division Heads<br>ORN Regional Directors<br>ORN Regional Medical Leads<br>ORN Provincial Medical Leads<br><br>80+ attendees |
| 14 | April 6th | 10 – 11 AM | Regional Renal Program call re: COVID-19 | Dr. Peter Blake, ORN Provincial Medical Director<br>Rebecca Cooper, Director, Clinical Programs, ORN | RRP Directors<br>RRP Nephrology Division Heads<br>ORN Regional Directors<br>ORN Regional Medical Leads<br>ORN Provincial Medical Leads<br><br>65+ attendees |
| 15 | April 8th | 1 – 2 PM | Regional Renal Program call re: COVID-19 | Dr. Peter Blake, ORN Provincial Medical Director | RRP Directors<br>RRP Nephrology Division Heads |

| CALL NUMBER | DATE | TIME | TITLE | MEETING CHAIR(S) | ATTENDEES |
|---|---|---|---|---|---|
| | | | | Dr. Peter Magner, ORN Provincial Medical Lead (PML) for Funding and Planning<br>Rebecca Cooper, Director, Clinical Programs, ORN | ORN Regional Directors<br>ORN Regional Medical Leads<br>ORN Provincial Medical Leads<br><br>80+ attendees |
| 16 | April 14th | 9 – 10 AM | Regional Renal Program call re: COVID-19 | Dr. Peter Blake, ORN Provincial Medical Director<br>Rebecca Cooper, Director, Clinical Programs, ORN | RRP Directors<br>RRP Nephrology Division Heads<br>ORN Regional Directors<br>ORN Regional Medical Leads<br>ORN Provincial Medical Leads<br><br>80+ attendees |
| 17 | April 17th | 1 – 2 PM | Regional Renal Program call re: COVID-19 | Dr. Peter Blake, ORN Provincial Medical Director<br>Rebecca Cooper, Director, Clinical Programs, ORN | RRP Directors<br>RRP Nephrology Division Heads<br>ORN Regional Directors<br>ORN Regional Medical Leads<br>ORN Provincial Medical Leads<br><br>95+ attendees |
| 18 | April 21st | 10:30 AM – 12 PM | Regional Renal Program call re: COVID-19 | Dr. Peter Blake, ORN Provincial Medical Director<br>Rebecca Cooper, Director, Clinical Programs, ORN | RRP Directors<br>RRP Nephrology Division Heads<br>ORN Regional Directors<br>ORN Regional Medical Leads<br>ORN Provincial Medical Leads<br><br>85+ attendees |
| 19 | April 23rd | 9 – 10:30 AM | Regional Renal Program call re: COVID-19 | Dr. Peter Blake, ORN Provincial Medical Director<br>Rebecca Cooper, Director, Clinical Programs, ORN | RRP Directors<br>RRP Nephrology Division Heads<br>ORN Regional Directors<br>ORN Regional Medical Leads<br>ORN Provincial Medical Leads<br><br>85+ attendees |
| 20 | April 28th | 10 – 11:30 AM | Regional Renal Program call re: COVID-19 | Dr. Peter Blake, ORN Provincial Medical Director<br>Rebecca Cooper, Director, Clinical Programs, ORN | RRP Directors<br>RRP Nephrology Division Heads<br>ORN Regional Directors<br>ORN Regional Medical Leads |

| CALL NUMBER | DATE | TIME | TITLE | MEETING CHAIR(S) | ATTENDEES |
|---|---|---|---|---|---|
| | | | | | ORN Provincial Medical Leads<br><br>95+ attendees |
| 21 | May 1st | 1 – 2:30 PM | Regional Renal Program call re: COVID-19 | Dr. Peter Blake, ORN Provincial Medical Director<br>Rebecca Cooper, Director, Clinical Programs, ORN | RRP Directors<br>RRP Nephrology Division Heads<br>ORN Regional Directors<br>ORN Regional Medical Leads<br>ORN Provincial Medical Leads<br><br>90+ attendees |
| 22 | May 6th | 10 – 11:30 AM | Regional Renal Program call re: COVID-19 | Dr. Peter Blake, ORN Provincial Medical Director<br>Rebecca Cooper, Director, Clinical Programs, ORN | RRP Directors<br>RRP Nephrology Division Heads<br>ORN Regional Directors<br>ORN Regional Medical Leads<br>ORN Provincial Medical Leads<br><br>75+ attendees |
| 23 | May 8th | 1 – 2:30 PM | Regional Renal Program call re: COVID-19 | Dr. Peter Blake, ORN Provincial Medical Director<br>Rebecca Cooper, Director, Clinical Programs, ORN | RRP Directors<br>RRP Nephrology Division Heads<br>ORN Regional Directors<br>ORN Regional Medical Leads<br>ORN Provincial Medical Leads<br><br>85+ attendees |

## COVID-19 Issue Specific Calls

| CALL NUMBER | DATE | TIME | TITLE | MEETING CHAIR(S) | ATTENDEES |
|---|---|---|---|---|---|
| 08 | March 25th | 4 – 5 PM | Regional Renal Program call re: COVID-19 – Glomerulonephritis (GN) | Dr. Michelle Hladunewich, ORN PML for GN<br>Jesse Wong, Team Lead, ORN Clinical Programs | RRP Directors<br>RRP Nephrology Division Heads<br>ORN Regional Directors<br>ORN Regional Medical Leads<br>ORN Provincial Medical Leads<br>GN Priority Panel |

| CALL NUMBER | DATE | TIME | TITLE | MEETING CHAIR(S) | ATTENDEES |
|---|---|---|---|---|---|
| | | | | | 50+ attendees |
| 10 | March 27th | 9 – 10 AM | Regional Renal Program call re: COVID-19 - Acute Dialysis | Dr. Ron Wald, St. Michael's Hospital<br>Dr. Alejandro Meraz Munoz, St. Michael's Hospital<br>Dr. Peter Blake, ORN Provincial Medical Director<br>Rebecca Cooper, Director, Clinical Programs, ORN | RRP Directors<br>RRP Nephrology Division Heads<br>ORN Regional Directors<br>ORN Regional Medical Leads<br>ORN Provincial Medical Leads<br><br>80+ attendees |
| 12 | March 31st | 1 – 2 PM | Regional Renal Program call re: COVID-19 – Home Dialysis | Dr. Phil Boll, ORN PML for Peritoneal Dialysis<br>Dr. Phil McFarlane, ORN PML for Hemodialysis<br>Dr. Jeff Perl, St. Michael's Hospital<br>Rebecca Cooper, Director, Clinical Programs, ORN | RRP Directors<br>RRP Nephrology Division Heads<br>ORN Regional Directors<br>ORN Regional Medical Leads<br>ORN Provincial Medical Leads<br><br>90+ attendees |

# COVID-19 Information Call – Meeting Minutes

For completeness of notes, key discussion points from previous weeks have been included, but have been italicized/greyed out.

## Prevention

### Screening

Week of March 9 – 13:

- *Many RRPs are continuing to screen patients on arrival. Screening includes questions about travel, respiratory symptoms, or if they have been in contact with someone who has recently travelled and has symptoms. If patient is symptomatic and/or positive for travel history they are put into a designated room for isolation and tested for COVID-19*
- *Some RRPs are calling patients in advance and asking screening questions over the phone. If positive they go straight to isolation room on arrival for dialysis and testing, and are connected with Public Health*
- *Some RRPs have set up additional handwashing stations, some are considering having patients use hand sanitizers at the registration desk, and some are wiping down chairs in waiting rooms in between each shift*

Week of March 16 – 20:

- *Many hospitals have moved to centralized screening of all patients, visitors and staff at main entrance, but some RRPs are continuing to screen at the entrance to the dialysis unit*
- *It is important that screening be done by nursing/clinical staff (as opposed to administrative staff) to be able to ask the right questions, in particular with dialysis patients with baseline symptoms*
- *Sunnybrook – treating all patients with droplet precaution with face mask and face shield preservation (mask and face shield changed between patients only if wet; gowns and gloves changed between patients)*
- *Some RRPs/hospitals have expanded criteria for swabbing (no travel history required)*
- *Sunnybrook – have swabbed all patients with baseline symptoms, and will not be swabbed again unless symptoms change*
- *Some RRPs identified lack of availability of swabs, but this has improved over the week*
- *Challenges identified with shortage of reagents for testing and delay in results*

Week of March 23 – 27:

- *Rationale for proactive screening of dialysis patients:*
  - *High risk, immunosuppressed population with multiple comorbidities*
  - *Rapid progression of COVID-19 if infected*
  - *Potential to expose patients, staff, and others due to high risk and mobility across the health system*
- *Sunnybrook Swabbing Practices*
  - *Swabbing individuals on hemodialysis if they are positive for any of upper respiratory symptoms, chronic or acute. It is important to establish a baseline negative status because pre-existing chronic symptoms are similar to that of COVID-19*
  - *Individuals placed on droplet precaution until swab is confirmed negative*
  - *Individuals with chronic symptoms not re-swabbed unless significant change in condition*
  - *All swabs require an order from the staff nephrologist – clinical judgement by care team is important as they know the patient best*
  - *Important to work with local IPAC department*
  - *ORN is supportive of Sunnybrook's proactive approach and would encourage other RRPs to consider implementing similar processes*
  - *Distributed document outlining Sunnybrook's approach on March 25, 2020*
- *Threshold for swabbing needs to be low to avoid any potential transmission*
- *Many RRPs have two levels of screening – at the entrance of the hospital and upon entering the hemodialysis unit – but are not swabbing all patients, only those with symptoms*
- *Unity Health has implemented additional screening 6-12 hours before treatment via phone call*
- *A few RRPs have expanded screening criteria to include abdominal pain and diarrhea*
- *Test result turnaround time varies across the province, but is improving*
- *Many large, academic hospitals are able to have testing done in-house within 6-12 or 24-48 hours. Community hospitals tend to rely on public health laboratories for testing with turnaround of up to 7-10 days*

*Week of March 30 – April 3:*

- *Swabbing practices and availability are generally improving across the province. However, regional variation and size of hospital are key factors in test result turnaround*

- *Royal Victoria Hospital – has implemented a drive-thru screening centre for satellite patients to get an appointment and swabbed within 10-15 minutes*
- *Some RRPs are performing nasopharyngeal swab tests on patients*
- *Mackenzie Health – decision to admit or discharge patients waiting for swab test results considers clinical characteristics and ability to self-isolate*
- *Scarborough – patients waiting for results are put on droplet precaution in hospital and told to self-isolate if at home with public health follow-up*

*Week of April 13 – 17:*

- *Northern Ontario RRPs have experienced longer test result turnaorund times (of approximately 7 days) than RRPs in Southern Ontario*
- *23 RRPs are testing all symptomatic dialysis patients*
- *11 RRPs have processes in place for testing long-term care and nursing home dialysis patients*
- *4 RRPs are testing all dialysis patients, including those that are asymptomatic*
    - *The return of results is in progress, however all RRPs have determined at least one asymptomatic patient is COVID positive.*
- *4 RRPS are also testing all HD unit staff*
- *Due to sensitivity of tests, some RRPs are leveraging experienced nurses to conduct tests*
- *The Ontario Government announced that testing for vulnerable populations, including hemodialysis patients. ORN is developing recommendations for testing hemodialysis patients and patients from long-term care homes to be provided to the Provincial COVID-19 Lab Testing Strategy Panel.*

*Week of April 20 – 24:*

- *20 RRPs are testing symptomatic dialysis patients only*
- *Some RRPs have begun testing LTCH patients on a weekly basis, however, IPAC support for this practice varies across RRPs*
    - *11 RRPs have processes in place for testing all LTCH and nursing home dialysis patients*
    - *2 RRPs have processes in place for testing only LTCH dialysis patients from an outbreak facility*
- *7 RRPs are testing all dialysis patients, including those that are asymptomatic*
    - *Most of the positive COVID-19 cases identified through mass testing have been from LTCHs and presented asymtomatically (e.g. no coughing and/or afebrile)*

    - *Humber – has begun to test all home dialysis patients by bringing them into the unit or conducting the test at the patient's home if they are not able to come in*
- *Broader testing is being done in combination with other infection control strategies, such as:*
    - *Masking all hemodialysis patients*
    - *Donning PPE and using contact and droplet precautions*
    - *Cohorting suspected or positive COVID-19 patients, where possible*
    - *Cohorting LTCH dialysis patients, where possible*
    - *Physical distancing*
- *Some RRPs have begun to test all dialysis staff*
- *ORN has received support from the Provincial COVID-19 Lab Testing Strategy Panel for recommendations for testing hemodialysis patients and patients from long-term care homes*
    - *Formal communication/dissemination from the government to follow*

*Week of April 27 – May 1:*

- *Humber – proceeding to test all home dialysis patients; anticipate more positive results as younger patients have been noted to begin less adherence to social distancing*
- *Some RRPs continue to struggle with IPAC support for broader testing criteria for in-centre HD patients (e.g. various testing all LTCH patients, testing all dialysis patients regardless of symptoms, testing dialysis staff)*

Week of May 4 – 8:

- MOH circulated a COVID-19 Provincial Testing Guiding Update on May 2, 2020 with detailed considerations for testing hemodialysis patients
- Testing of all dialysis staff, even in outbreak situations, varies across programs
- Two predominant perspectives about testing practices emerged
    - Some RRPs support the need to test all dialysis patients, irrespective of symptoms
    - Some RRPs believe asymptomatic testing is not necessary if strict contact and droplet precautions are in place
- Testing all LTCH dialysis patients has become more common across RRPs, as patients are at a higher risk due to inability to self-isolate and transportation to and from dialysis treatments

**Information Dissemination**

Week of March 9 – 13:

- *A few RRPs / hospitals have set up committees that meet daily to discuss new developments and changes to practices*
    - *Sunnybrook – nephrology specific committee meets daily to intake all information related to COVID-19 and determine what and when to spread to staff and patients. Goal is to reduce volume of communications, reduce confusion from multiple sources of information, and provide points of contact*
    - *Humber has a daily committee that is led by hospital IPAC; not specific to nephrology but includes representatives from each clinical program*
- *Some RRPs have sent letters to patients outlining policies related to COVID-19*
- *Many RRPs have posters and other educational materials regarding protocols, handwashing, etc.*

Week of March 16 – 20:

- *GN patient handout shared by Sunnybrook – other RRPs can use/share with patients as needed*
- *Patient FAQ website shared by Kingston*

Week of March 23 – 27:

- *Distributed New England Journal of Medicine article that discussed the lifespan of COVID-19 on different surfaces on March 25, 2020*
- *Ministry of Health/Ontario Health document on PPE Use During COVID-19 was widely circulated by hospitals this week*

*Week of March 30 – April 3:*

- *Ministry of Health/Ontario Health document on Multi-Employer Health Care Workers was widely circulated this week*
- *Protected Code Blue protocols were shared by Lakeridge Health and Royal Victoria Regional Health Centre*
- *ORN distributed policy outlining funding support for transportation arrangements*

**Social/Physical Distancing**

Week of March 9 – 13:

- *Many RRPs identified that social distancing amongst patients receiving dialysis is incredibly difficult given their current capacity challenges*
- *Several RRPs have cancelled group events including education sessions, gatherings of more than 15 – 20 people (e.g., rounds), World Kidney Day events, etc.*
- *Some RRPs are restricting visitors in the HD unit unless they are required to get the patient to and from dialysis*
- *It was suggested that RRPs may want to consider providing direction on handshaking, hugs, etc.*

Week of March 16 – 20:

- *Some RRPs are still doing regular rounding within in-centre dialysis units, but maintaining distance and using appropriate PPE*
- *It was suggested that rounding could be done only for patients where need has been identified*
- *Royal Victoria Hospital – have asked IT team to set up OTN for satellite units*
- *Kingston – at satellite sites, nursing doing telephone screening 24 hours before, and also screening at entrance; if screening is positive, physician is called to do assessment to determine if dialysis at satellite unit is appropriate*
- *Some RRPs have restricted visitors or limited visitors to essential caregivers*

*Week of April 13 – 17:*

- *Humber – continuing home assessments, if the patient and family are not symptomatic, with appropriate social distancing and masking*

*Week of April 27 – May 1:*

- *Some RRPs have implemented practices, such as limiting the number of staff in communal spaces like change/break rooms, to prevent staff to staff transmission*

**Clinics**

Week of March 9 – 13:

- *Many RRPs are reviewing clinics over the next several weeks to determine which can be cancelled, postponed, or moved to OTN/virtual*
- *St. Michael's – reviewed next 8 weeks of home dialysis clinics and reduced some patients to every 3 months vs 2 months where appropriate; have reviewed which patients could do OTN vs. come in person; nurses are calling patients day before appointment to do pre-screen. They will be doing this for MCKC as well*
- *St. Joseph's Hamilton – For MCKC and general nephrology, as of March 23rd only urgent cases will be in-person, all others virtually. For older patients who are not tech savvy they will likely have to be phone calls*
- *Humber - calling patients for any URI symptoms, if they have visits will be virtual. If they can't do virtual appointments they will reschedule in 2 months (looking at bloodwork to ensure this is appropriate)*
- *Royal Victoria Hospital – calling patients the day before clinics. Clerk helps them wash hands when they arrive*
- *London - looking at scaling back transplant clinics. There is a secure app available for OTN that can be used over smart phones, which doesn't require hospital to hospital communication*

Week of March 23 – 27:

- *Opportunity to emphasize home training to get patients out of the hospital while clinics are not busy*

**Access Procedures**

Week of March 16 – 20:

- *Many RRPs are continuing to insert PD catheters*
- *Some RRPs have stopped PD catheter insertions, but are revisiting*

Week of March 23 – 27:

- *Many ORs are not doing PD catheter insertions anymore because they are considered elective procedures, however some programs have negotiated internally within hospitals to reinstate OR time*

- *Some RRPs are continuing to provide percutaneous and interventional radiology (IR) insertions*
- *Access to PD insertions is a huge concern*
    - *Living donor transplant candidates may be good home dialysis candidates while transplants are on hold due to COVID-19*

*Week of April 27 – May 1:*

- *Many RRPs have been able to resume PD catheter insertions, as surgical volumes have decreased for other non-elective procedures*
- *Interventional radiology and bedside PD catheter insertions are continuing*

**Personal Protective Equipment (PPE)**

Week of March 23 – 27:

- *Some RRPs experiencing shortages in PPE – not all nurses are wearing masks*
- *Many RRPs are providing staff with 2 surgical masks per shift with guidelines for appropriate use*
    - *Inappropriate use of masks may increase risk of transmission (e.g. touching face, walking around with it on)*
- *RRPs are being mindful of when to use N95 masks vs. surgical masks*
- *Some RRPs have implemented use of surgical masks for all clinical staff and non-clinical staff in clinical areas*
- *Sunnybrook – symptomatic patients are given masks*
- *Working closely with local IPAC departments has been helpful in determining appropriate use of PPE in the dialysis unit*
- *Additional layers of PPE (e.g. face shields, gloves, and gown) are added if caring for patients requiring droplet precautions*

*Week of March 30 – April 3:*

- *Many RRPs have implemented use of masks for all staff in the dialysis unit*
- *9 RRPs reported that they have begun to provide all patients with masks upon entering the dialysis unit*
- *Some RRPs indicated that masks are provided to all patients upon entering the hospital (e.g., William Osler)*
- *Kingston – IPAC has approved fabric masks for renal patients, with instructions describing appropriate use*
- *Grand River – temperatures are taken upon entering the dialysis unit*

*Week of April 6 – 10:*

- *Masks for patients:*
    - *18 RRPs provide all in-centre hemodialysis patients (symptomatic and asymptomatic) with masks*
    - *Some RRPs have experienced challenges with supply of PPE and getting approval from IPAC to mask all patients*
    - *Renfrew Victoria Hospital – providing assymptomatic patients with fabric masks that will be laundered by the hospital after use*

*Week of April 20 – 24:*

- *Some RRPs are using droplet precautions for all LTCH dialysis patients*
- *Ottawa Hospital – PD patients do not typically wear masks during treatments if they are not symptomatic. Most literature on the topic indicates that masking is not clinically required.*

**Lab Work**

*Week of March 30 – April 3:*

- *Some RRPs are having trouble with lab work and blood tests, as smaller labs have closed or restricted hours of operation*

**Learnings from RRPs with Low Number of Cases**

Week of May 4 – 8 :

- Health Sciences North
    - Implemented prevention measures early
    - Screen patients on the phone the day before, entrance to the hospital, entrance to the hemodialysis unit, and on the dialysis machine
    - All LTCH dialysis patients are isolated and treated with contact and droplet precautions
    - LTCH patients are tested on a weekly basis, while symptomatic dialysis patients with a low threshold for symptoms
    - Test result turnaround time has improved and patients are more forthcoming about symptoms
    - Have one satellite unit that is unable to isolate, so may admit patients to the RRP hub hospital

- Peterborough Regional Health Centre
    - Symptom screening at the entrance of the hospital and dialysis unit
    - Swabbing only symptomatic patients with a low threshold for symptoms
    - All staff and physicans wear masks in clinical areas and face shields are used for screening
    - Using curtains for isolating patients from LTCH and other congregate living settings where space does not allow for isolation
- Sunnybrook Health Sciences Centre
    - Have instituted a nephrology specific multidisciplinary team for COVID-19 that includes IPAC representation
    - Implemented strict contact and droplet precautions for all LTCH and congregate living patients
    - Primary nephrologist model has been helpful, as it can potentially help in detecting subclinical infection
    - In cases where physically distancing patients is not possible, ensure that none of these patients are supposed to be in contact and droplet precautions
- Kingston Health Sciences Centre
    - Community prevalence may be low and contributing to low number of cases
    - Implemented multi-level screening similar to other RRPs
    - Patients from satellites are being tested and isolated
    - Regular communication with IPAC
    - Have developed an Excel tool that extracts data from the hospital electronic medical record on individuals that have been tested and cross-references with renal patients; this tool also track capacity
    - Transplants were on hold, but have been reinstated very recently
    - Renal has been designated as a priority population and PPE supply has been available for appropriate use
    - Have implemented a strict visitor policy and physical distancing in waiting rooms

## Suspected or Confirmed COVID-19 Cases

Week of March 9 – 13:

*Some RRPs plan to admit COVID-19 positive patients, others are looking into options for transporting patients back and forth from their homes three times per week for dialysis*

- *Sunnybrook – currently plans to admit even COVID-19 positive patients with mild cases due to issues regarding transporting patients back and forth from home three times per week for dialysis*

- *Most programs said they are unable to admit COVID-19 positive patients who don't meet regular criteria for acute hospital admission due to limited inpatient capacity. Only COVID-19 positive patients who are unwell and require inpatient services would be admitted*
- *Suggestion to treat on a case by case - in certain circumstances may need to admit whether patient is well or unwell*
- *Some satellites/IHFs are transferring suspected cases to the hub / closest hospital / their home Regional Renal Program. Receiving hospital is called in advance so they can take necessary precautions (e.g., Brockville IHF, Sheppard/Sussex Centres).*

*Week of April 27 – May 1:*

- *Some RRPs are providing dialysis for positive COVID-19 patients from satellite units, as satellites may not have capacity to isolate positive COVID-19 patients*

**Droplet/Contact vs. Airborne Precautions**

Week of March 9 – 13:

- *RRPs are still awaiting guidance on whether they should be using droplet precautions only or airborne precautions as well. Some sites do not have airborne isolation rooms or have a limited number of airborne isolation rooms and would therefore have to transfer positive patients if airborne precautions are in place. If contact/droplet precautions are put in place, practices may change.*

Week of March 16 – 20:

- *RRPs are now taking droplet/contact precautions for suspected cases, based on updated guidelines; however, some are experiencing push back from ONA wanting nurses to take airborne precautions*
- *OH is aware of the union issues provincially, but no recommendations have been provided yet*

**Transportation of Positive Patients**

Week of March 9 -13:

- *Most RRPs will be unable to admit COVID-19 positive patients that are mild cases. Ideally, family members could drive them to their treatments while protecting themselves (mask and gloves)*
- *Many IPAC teams are suggesting that people should not take public transit*
- *Suggestion to send positive patients home with gloves and masks that can be used during transportation back and forth to hospital*
- *Several RRPs (e.g., Unity Health, Humber, Ottawa) are planning to leverage existing contracts with taxi companies to transport patients for dialysis. Obligation to inform taxi agency that they need transportation of COVID-19 positive patient and plan to use that company for all treatments. Driver has the right to turn down the fair (Ottawa has encountered this)*
- *ORN is seeking input from the provincial OH lead for COVID-19 regarding transporting a confirmed COVID-19 in-centre hemodialysis patient to and from the dialysis unit using medical transportation companies.*

Week of March 16 – 20:

- *Some RRPs are continuing to use taxi to transport positive or suspected COVID patients; some still plan to admit positive COVID patients because of transport issues*
- *It was noted that because of privacy, hospitals are not required to identify if a patient is COVID positive to the taxi company/driver; there has not been push back from taxi companies*
- *Humber – Patients who are transported by taxi continue to be provided with mask and gloves, but clarified with IPAC that taxi drivers do not need to be provided with mask (they can choose to wear one themselves). Approach is consistent with what is occurring at assessment centres.*
- *The issue of volunteer drivers who are self-isolating or refusing/shutting down was identified. No solution has been identified so far, but it is anticipated that this will become a more widespread issue.*
- *TTC has confirmed that starting on Monday, there will be 16 designated operators (trained on PPE) and vehicles to transport suspected COVID patients*
- *ORN is putting forward proposal for additional provincial funding to support RRPs with transportation costs*

Week of March 23 – 30:

- *Some RRPs are procuring private non-urgent transport, in addition to existing community providers*
- *TTC will treat both positive and suspected patients the same*
    - *Process is to call TTC, they will screen patient and provide appropriate transportation*

- *Humber is looking into medical and non-medical companies since taxi drivers have started to refuse transport of COVID-positive patients*
- *UHN sends tested patients home with 4 masks – 2 for the way home (1 for the patient, 1 for the driver) and 2 for the way back*
- *With the support of the ORN, London is exploring partnerships with wheelchair accessible school transportation and has partnered with the Cancer program to provide patients with accommodation*

*Week of April 13 – 17:*

- *Transportation of suspected and positive COVID-19 patients to and from the dialysis unit is still a challenge for some RRPs*
- *Family facilitated transport may increase interactions between positive COVID-19 patients and other staff (e.g. parking attendants)*

*Week of April 27 – May 1:*

- *Algorithm for patient transportation shared by Lakeridge Health System's Regional Renal Program*
  - *Plan A: current state – patient is travelling to and from dialysis treatment via car, family members, transit, or taxi*
  - *Plan B: alternate options for transportation if regular modes of transportation are not available for suspected or positive COVID-19 patients (have also created an FAQ document for who to contact at these transportation providers)*
  - *Plan C: transportation options become limited due to lack of capacity, nephrologists and nurse practitioners will consider reducing dialysis frequency where safe to do so*
  - *Plan D: if reducing dialysis frequency is not an option, admission will be considered on a case-by-case basis*

Week of May 4 – 8:

- More than half of active, positive COVID-19 cases within chronic dialysis patients are travelling to and from the RRPs for dialysis treatment
- RRPs are facing challenges unique to local transportation providers, but have generally been able to find ways to arrange transportation for patients

**Provincial Transfer Authorization Centre (PTAC)**

Week of March 23 – 27:

- *Ministry of Health requires all interfacility patient transfers, including emergency transfers, between Ontario hospitals to have a PTAC issued Medical Transfer Authorization Number before transport*
- *RRPs have not encountered any issues with patient transfer yet, but anticipate this could be a bigger issue*

**Dialysis Management Clinics (DMCs) / Independent Health Facilities (IHFs)**

Week of March 23 – 27:

- *It was noted that DMCs had requested a repeat test or 14-day isolation for a suspected case that had tested negative*
    - *Similar approach from other IHFs is anticipated*

*Week of March 30 – April 3:*

- *IHFs are restricted in their ability to isolate suspected or positive COVID-19 cases due to size*
    - *Suspected or positive patients may need to be transferred back to RRPs to receive dialysis*
    - *Ottawa Hospital – exploring if IHFs may be able to support with dialyzing patients who are well*
- *IHFs may refuse to take back suspected cases with negative test results due to possiblity of false negative*
    - *RRPs expressed that IHFs should be able to support main hospitals as they preserve capacity and staffing for hemodialysis and acute dialysis needs*
    - *RRPs could consider supporting IHFs with management of positive COVID-19 cases and infection control*

**Triage Protocol**

*Week of March 30 – April 3:*

- *Ministry of Health/Ontario Health has disseminated a Clinical Triage Protocol for Major Surge in the COVID-19 Pandemic to hospital CEOs and Critical Care Leads*
    - *A surge can be declared if ICU capacity is overburdened*
    - *Renal patients were not specifically called out*
- *Goals of Care*

- *Proactively classifying dialysis patients into the three triage levels may allow for goals of care conversations with eligible patients and families*
- *However, goals of care conversations, which are about honouring patient wishes, are very different than conversations that may need to occur with patients in the context of COVID-19 should the province reach major surge*

*Week of April 20 – 24:*

- *Critical Triage Protocol for Major Surge in COVID-19 Pandemic, which was previously disseminated to hospital CEOs and Critical Care Leads, is being revised to not exclude highly-functional end-stage renal disease (ESRD) patients who have not been admitted to hospital in the last year for a degenerative condition related to ESRD from admission to ICU if province gets to Level 3 surge*
  - *Hospitalization due to peritonitis or catheter-related bactermia will not indicate a degenerative state*
- *Transplanted patients with well-functioning transplants will not be classified as end-stage organ failure*

**CPR/Code Blue in the Dialysis Unit**

*Week of March 30 – April 3:*

- *Performing cardiopulmonary resuscitation in the dialysis unit is a very high risk procedure due to large amounts of aerosol generation and could impact other patients and staff*
- *Some programs are facing challenges with developing processes and getting buy-in for conducting a code blue in the dialysis unit which keeps other patients and staff safe*
  - *It was suggested all patients should be treated the same as suspected or confirmed positive COVID-19 patients due to possible asymptomatic transmission of COVID-19*
- *Sharing protective code blue documents would be helpful*
- *Sunnybrook – in a code blue situation, a bag valve mask/Ambu bag should not be used; first person should be in PPE and doing chest compressions*
- *St. Michael's – everyone is treated with full PPE (N95 masks, gloves, and gown), which are available in the code blue kit*
- *Scarborough*
  - *N95 masks are available on the cart and code team stands back 2 meters while intubation occurs*
  - *At the call of the intubator, team will resume activities in PPE*
- *Humber – satellite units and hospital sites have differing procedures*

- *Satellite staff will be in extended PPE and provide chest compressions with no oxygen delivery. If an AED is available, this will be used.*
- *Dialysis staff will disconnect and take patient to a negative pressure isolation room. Dedicated code blue team will take over the situation on arrival – it has been hard for dialysis nurses to stand and wait during a code*

*Week of April 6 – 10:*

- *Many RRPs have a protected code blue policy across the hospital*
- *RRPs have indicated different processes in hospital units compared to satellites or off-site units*
- *London*
  - *Off-Site Units (e.g. shopping mall) – One nurse will disconnect patient while another prepares the isolation room, move them to an isolation room, nurse with PPE will apply AED until EMS arrives*
  - *Hospital Units – move patient to an isolation room to avoid CPR in an open area, let code blue team take over on arrival*
- *Code blue has been stressful for nurses due to:*
  - *Unclear direction on what to do in a code blue situation*
  - *Performing unprotected CPR*
  - *Doing nothing at all while waiting for dedicated code blue team to arrive*
- *Royal Victoria Hospital – ICU team and respiratory therapists have created an innovative glass case for intubation*

*Week of April 20 – 24:*

- *Several RRPs indicated that satellite or off-site units will follow their local hospital code blue procedures or 911-response*
- *Dialysis staff should be mindful of donning appropriate PPE when responding to routine alarms and non-code blue crashes for dialysis patients*
- *In the absence of physical space required to isolate code blue dialysis patients, some RRPs have explored the option of providing nearby patients and staff with N95 masks during code blue*

**Long-Term Care Home (LTCH) Patients**

*Week of April 6 – 10 :*

- *Some RRPs have admitted and are monitoring suspected or positive COVID-19 patients who reside in LTCHs*
    - *Considering transfer back to LTCH if patient is not exhibiting symptoms once transportation is arranged*
- *Some RRPs are testing all patients who live in a LTCH with an outbreak*
- *Some RRPs are isolating patients who live in a LTCH with an outbreak and only testing symptomatic patients*

*Week of April 20 – 24:*

- *Some RRPs have begun to admit LTCH dialysis patients on a case-by-case basis, while others are continuing to transport patients back and forth with appropriate precautions*
- *Many of the positive COVID-19 cases that have been identified through asymptomatic testing in various RRPs have been from LTCHs*

*Week of April 27 – May 1:*

- *Some RRPs continue to admit LTCH dialysis patients on a case-by-case basis, while others continue to transport patients back and forth with appropriate precautions*
- *RRPs should work in conjunction with LTCHs to determine what is the best option for the patient (e.g. admission vs. transportation back and forth for treatments)*

## Multiple Confirmed Cases

**Cohorting of COVID-19 patients**

Week of March 9 – 13:

- *Lakeridge is looking to proactively set up two COVID-19 units to cluster any positive, admitted patients. They are trying to forecast how many might be dialysis patients*
- *London is considering a nocturnal shift to provide cluster care for COVID-19 positive patients if there are multiple cases; St. Joe's Hamilton is considering a nocturnal shift for non-COVID patients*

Week of March 16 – 20:

- *For patients requiring isolation, dialysis schedules may need to be changed in order to stagger patients*
- *Some hospitals have created COVID units – positive dialysis patients would be admitted there*

**"Rationing" Dialysis**

Week of March 9 – 13:

- *Potential to reduce some patients to two treatments per week in the event there is an increased demand for dialysis in the event of multiple critical cases with multi-system organ failure*
- *London has developed an algorithm to proactively "ration" dialysis so that they are not scrambling in event of emergency (i.e., determining who could do 2 times per week). Contact Dr. Andrew House if you would like to see this*

Week of March 16 – 20:

- *Algorithm shared by Dr. Andrew House (London) – it was suggested that this exercise be done and kept up-to-date for all dialysis patients, in the case that dialysis treatments need to be reduced*

**Staffing**

Week of March 9 – 13:

- *Many RRPs raised the concern around staffing in the event that multiple staff are sick/ under self-isolation*
- *If staff are sick but well enough to work, need to incorporate ethical principles*
- *Humber is looking to build enough capacity in NRT to manage patients from physical perspective and have dialysis nurses focus on skilled care such as managing cannulation and machine management*
- *In the GTA, nurses are shared across multiple hospitals and are therefore very vulnerable to getting sick. During SARS, staff were required to choose one site to work at rather than moving from site to site*
    - *This approach could put some programs at risk as some programs are only able to offer part time hours so staff are more likely to choose to work at programs that can offer full time hours*

Week of March 16 – 20:

- *While staffing continues to be a big concern, RRPs are considering different options but have not yet changed any staffing models*

Week of March 23 – 27:

- *RRPs expressed concerns about limiting staff movement between facilities, as was the case during the SARS outbreak*
    - *Dialysis nurses should be considered specialized nursing*
- *Dialysis nurses are being redeployed to COVID-19 centres due to prior ICU experience*
- *Niagara Health is retraining PD and access nurses on HD machines, as well as contacting recently retired HD nurses*

*Week of March 30 – April 3:*

- *Restricted staff movement is an ongoing concern for RRPs*
    - *Casual staff at some programs have been directed by their home organizations to choose one site to work at, rather than moving between facilities*
    - *Limited movement of locum nephrologists would greatly impact some programs*
    - *Public health can restrict movement when there is an outbreak*
- *HR guidance document from Ontario Health regarding staff who work at multiple sites was widely circulated to hospitals*

*Week of April 13 – 17:*

- *Some RRPs identified staffing constraints due to requirement for positive COVID-19 staff to have two negative swabs prior to returning to work*

*Week of April 20 – 24:*

- *St. Michael's Hospital – have developed plans to support the home dialysis program through redeployment of other RRP staff (e.g. MCKC, transplant nurses) as a result of home dialysis nurses being redeployed to support in-centre hemodialysis*

*Week of April 27 – May 1:*

- *Some RRPs have experienced challenges with redeployment of PD and HHD nurses*

**Management of AKI of COVID-19 Patients in ICU Setting**

Week of March 9 – 13:

- *Need to consider acute dialysis capacity in the event that multiple patients have multi-organ system failure*
- *In Italian context, there has been difficulty providing dialysis support to all of the patients who have become critical and experience multi-organ failure*
- *Non-COVID related issues requiring acute dialysis are still occurring so even a modest influx would be a big strain on the system*

Week of March 16 – 20:

- *For planning purposes, ORN has updated an inventory of HD machines, and has obtained an inventory of Baxter PrismaFlex machines*
- *In Toronto Central region, there is a shortage of CRRT machines, and it is not uncommon to swap/borrow machines within the region*
- *RRPs are also anticipating a shortage of solutions and filters for acute dialysis*
- *It was noted that regular dialysis machines can be used for acute patients*
- *The concern about the availability of ICU beds in general was identified, and that hospitals are starting to plan for the use of unconventional spaces for ICU patients*

Week of March 23 – 27:

- *Staff comfort with administering CRRT in an ICU setting due to risk of exposure was raised as an issue*
    - *Cases in the U.S. have done CRRT with longer tubing to set up the machine outside the ICU room*
    - *Changing bags less often and having the same nurse care for the patient were suggested as potential approaches*

*Week of March 30 – April 3:*

- *Baxter is confident that supplies for acute dialysis will not be an issue.*
- *Programs may not be able to order new machines, as Baxter wants to preserve additional machines to support those in most need*
- *Training staff on older continuous arterial-venous hemodialysis (CAVH) machines may be an easier option compared to more sophisticated CRRT and SLED machines*

*Week of April 6 – 10:*

- *Please refer to COVID-19 Supplemental Clinical Guidance #2: Acute Dialysis*
  - *Developed by Dr. Ron Wald, Dr. Matthew Weir, Dr. Andrew House, and Dr. Edward Clark*
- *CRRT in ICU settings*
  - *Routine anticoagulation that programs are familiar with is recommended*
  - *Important to consider prescription and set up of machines to minimize nurse contact with patient*
  - *Volume management should be a priority and done as safely as possible*
- *SLED/Intermittent Dialysis in ICU settings*
  - *Due to limitations on how many CRRT machines are available, may need to explore SLED/intermittent dialysis where possible*
  - *Key to get early vascular acesss via internal jugular veins due to prone positioning of ventilated COVID-19 patients*
  - *Use of this modality also depends on available nursing support on ICU and dialysis teams*
- *Equipment*
  - *Baxter has advised that there are no additional CRRT machines available for order*
  - *Provincial inventory of ICHD and HHD machines indicates that there are many back up machines available and should not be a limiting factor (should also consider recently retired machines) – there may still be shortages in individual RRPs due to misalignment of regional supply and demand*
  - *ORN has developed a lease agreement template for programs to borrow machines from one another*
  - *Approximately 200 reverse osmosis (ROs) in the province*
- *Planning for increased acute dialysis*
  - *It is estimated that 20% of ICU patients will require dialysis at some point in their COVID-19 treatment*
  - *Ottawa Hospital – looking at all nurses across hospital who have dialysis experience to plan for redeployment*
    - *Team nursing model in the ICU will allow dialysis nurses to focus on only dialysis treatment for up to three patients at a time*

    - *Scarborough – has projected potential volume of cases across its three hospitals and begun to prepare and allocate resources accordingly (e.g ordering more machines, redeployment, and concentrating AKI patients requiring dialysis at one site)*
- *Extended tubing and dialysate temperature*
    - *Using long blood lines may cause blood temperature to drop, so dialysate temperature could be adjusted accordingly based on clinical judgement*
    - *Long tubing may present a tripping hazard for staff around the unit – should consider the geography of ICU and ROs*
- *PPE Use*
    - *Lakeridge*
        - *For COVID positive patients on ventilator – dialysis nurses wear N95 masks due to possibility of ventilator disconnection*
        - *For positive patients in ICU, but not on ventilator – dialysis nurses adhere to droplet precaution with surgical masks and face shields*
    - *Scarborough*
        - *Droplet precaution for all COVID-19 patients, regardless of setting*
- *Remote settings (e.g. Satellites)*
    - *It would be ideal for acutely ill patients to transfer to ICUs with dialysis, but in some cases, this is not possible*
    - *London – have sent ROs and CRRT machines to some satellites to support dialysis in ICU or at the bedside*

*Week of April 13 – 17:*

- *Prone position of COVID-19 patients increases difficulty of line insertions, pressure alarms, and catheter disconnections*
- *Some RRPs have experienced challenges with clotting lines on CRRT – some have had more success with intermittent hemodialysis*

*Week of April 27 – May 1:*

- *Ottawa Hospital*
    - *Heparin has been used for anticoagulation during SLED*
    - *Chronic dialysis patients with COVID-19 have experienced less clotting than COVID-19 patients requiring acute dialysis – this might be due to these patients being less sick and less hypercoaguable*
- *London*

    - *Citrate has been used for anticoagulation during CRRT*
    - *Prone positioning of patients has led to clotting due to increased intrathoracic pressure and position of lines*
    - *Introduced SLED specifically for COVID-19 response*
    - *As part of a research protocol, London is currently experimenting with a new modality to modulate inflammation by capturing and deactivating white cells, while maintaining extracorporeal circuit through an intermittent dialysis machine and citrate anticoagulation*
- *Staff have expressed concerns about long durations of time wearing PPE while administrating SLED*
- *A recent intensive care study shows that COVID-19 patients may have a different cytokine profile than the typical cytokine storm*
    - *COVID-19 cytokine profile consists of chemokines related to a very inflammed endothelium and others associated with clotting factors*
- *St. Michael's Hospital*
    - *Use of home dialysis machine, 5008S, has a remote control feature that allows nurses to manage dialysis from outside of the ICU room*
- *Some RRPs are using N95 masks for nurses providing dialysis in the ICU*

**Managing Outbreaks in Dialysis Unit**

*Week of April 13 – 17 :*

- *St. Michael's Hospital*
    - *COVID-19 could have been acquired from combination of community spread and interactions on the unit or in the waiting room*
    - *Tested all dialysis patients and staff (including patient transport and environmental services) and implemented temperature screening upon entrance into the dialysis unit*
    - *Most positive cases are asymptomatic*
    - *Have designated an isolated room for COVID-19 positive patients*
    - *Have implemented universal droplet precaution – physicians and staff in dialysis unit are in PPE (gown, gloves, procedural mask, face shield, and hairnet)*
    - *Have increased cleaning between treatments*
    - *Transportation for suspected and positive COVID-19 patients has been a challenge*
    - *Signficant anxiety from staff about appropriate PPE*

- *William Osler Health System*
    - *Case tracking has enabled testing other staff and patients who may have been in contact*

*Week of April 20 – 24:*

- *Several strategies have been explored to mitigate staffing shortages at RRPs that have an outbreak among staff, including:*
    - *Moving staff from site to site*
    - *Redeploying dialysis nurses from other areas of the RRP to support areas with staff shortages*
    - *Revising staffing model to leverage additional healthcare aide/support workers*
    - *Leveraging non-dialysis nurses to support non-dialysis specific clinical care*
    - *Less frequent dialysis for patients where it is safe to do so*

*Week of April 27 – May 1:*

- *Ottawa Hospital*
    - *Patients were not strictly adhering to masking policy (e.g. taking it off)*
    - *Contact tracing and testing of all dialysis patients were triggered once the index case was identified*
    - *Have not conducted mass testing of dialysis staff, as hospital's IPAC department believes testing asymptomatic personnel may provide a false sense of confidence to tested individuals and loosening of adherence to precautions*
    - *RRP had to advocate strongly for mass testing of all dialysis patients*
    - *Staffing has been a challenge, as staff are on self-isolation leave*
    - *Have a designated COVID-19 dialysis shift for positive cases*
    - *Less frequent dialysis for patients where it is safe to do so, physical distancing of stations within the unit, strict contact and droplet precautions are some strategies that have been implemented on the COVID-19 dialysis shift*
- *Scarborough*
    - *An outbreak was declared on the in-patient dialysis unit*
    - *All dialysis patients were tested*
    - *Testing for dialysis staff has been a challenge*
    - *Many staff were lost to self-siolation due to potential exposure*
- *St. Michael's Hospital*
    - *Have designated a COVID-19 positive dialysis area*

- *Restrictied staff movement between facilities, however, it has been a challenge to enforce this policy as other hospitals may be allowing staff to continue working at their site*

Week of May 4 – 8:

- There is no consistent provincial definition for declaring an outbreak in a hospital/ambulatory care setting
- Outbreaks are declared by the hospital IPAC and local Public Health Unit
  - An outbreak may be declared internally, but not meet the criteria for Public Health
- RRPs that have experienced outbreaks used similar definitions, included below
  - Two or more nosocomial (hospital-associated) cases of COVID-19 identified within a 5 – 14-day period, where cases were epidemiologically linked

## Assisted-PD

Week of March 9 – 13:

*Need to consider PD patients on assistance and what to do in the event healthcare workers are positive and/or don't have capacity because the healthcare system is already strained*

- *RRPs should contact CCAC/Home and Community Care to discuss plans*
- *Ottawa Hospital is currently looking into this as Ottawa staff provides assistance themselves*
- *RRPs should be prepared to bring some of these patients in-centre in some hospitals*
- *Consider reducing PD in some cases, e.g., to every other day PD*

*Week of April 20 – 24:*

- *CAPD use and family support has increased anecdotally during the COVID-19 pandemic*

## Transplant

**Pre-Transplant Considerations**

Week of March 9 – 13:

- *Living donors willingness to travel given current travel restrictions*
- *Screening re travel history of living donors*
- *Transplant Ambassador Program - has not yet been closed but have told patients to follow volunteer practices of hospital. If anyone feels uncomfortable they may speak to staff over the phone*

**Surgery**

Week of March 9 – 13:

- *Transplant surgery is considered elective so if any hospitals decide to cancel elective surgery both deceased and living donor surgeries will be impacted*
- *RVH had a patient turn down a kidney based on COVID-19*

**Post-Transplant Patients**

Week of March 9 – 13:

- *For patients that are well, it's possible that visits could be done remotely*
- *Evidence may suggest that immunocompromised patients may require less exposure for transmission*

*Amit will check in if TGLN has guidance*

**Updates from Trillium Gift of Life Network Medical Director**

Week of March 16 – 20:

- *Dr. Darin Treleaven, Trillium Gift of Life Network Medical Director*
    - *Living kidney donor activity has been put on pause provincially and nationally until end of month*
    - *Looking into whether evaluation of donor candidates can be done by conference call*

- *Practices for screening donors has been updated; tool has been developed*
- *Deceased kidney donor activity has been put on hold for 2 weeks*
- *Transplant Ambassador Program (TAP) is on hold in terms of in-person visits*
- *Letters are being developed to be provided from transplant centres for patients about immunosuppression and to allow individuals to remain at home*

*Week of April 6 – 10:*

- *Dr. Darin Treleaven, Trillium Gift of Life Network Medical Director*
  - *Transplants for pre-transplant patients and living donor transplants continue to be on hold*
  - *Deceased donor transplants are only occuring for a cPRA of 99-100% – there are approximately 170 patients that meet this criteria and likely only 20 would be transplanted in a year under normal circumstances*
  - *TGLN is having ongoing, regular calls with Canadian Blood Services*
  - *Most provinces are in alignment with Ontario's approach (e.g. Quebec has postponed transplants even for high-risk patients; Edmonton is an outlier in continuing low-risk transplantations)*

*Week of April 20 – 24:*

- *Dr. Darin Treleaven, Trillium Gift of Life Network Medical Director*
  - *Regular communication has continued among transplant programs provincially and nationally*
  - *TGLN developed a framework with stages and criteria to restart transplant activity in a phased approach*
  - *Some transplant centres may be ready to reopen, but others may not*
  - *Looking to ramp up deceased donor kidney transplants by allowing donation from best donor based on standard criteria donors and recipients*
  - *Living donor kidney transplants are still on hold and will be part of the subsequent phase*
- *Transplant is a key parameter for some RRPs in managing in-centre hemodialysis capacity*

Week of May 4 – 8:

- Dr. Darin Treleaven, Trillium Gift of Life Network Medical Director
  - Transplant centres have created plans to resume transplant activity incrementally based on local circumstances

- Currently, the province is in phase “orange” of phasing-up transplant activity, which means only donors and recipients that have a high likelihood of success are being considered
- Some Transplant Centres have moved from phase “orange” back to “red” and back again to “orange” based on local conditions
- The yellow phase will be next and may include restarting living donor transplants
- Ontario has been receiving transplantation referrals from other provinces

## ORN Performance Management

Week of March 23 – 27:

- *Clinical issues where ORN has key indicators remain very important, however focus on the underlying clinical issues as opposed to the performance targets associated with them at this time*
- *Vascular Access (VA) Wait Times - most VA procedures are considered elective and suspended at many hospitals*
- *Home Dialysis - should be considered an option for keeping patients out of the hospital, however, not all programs may be able to support home dialysis as staff get reassigned to support HD unit*
- *Deferred Dialysis – added benefits to deferring starts at this time, however some patients may be unstable and it may be better to start them on dialysis to avoid an unplanned start in the emergency department*
- *Goals of Care - very relevant issue in the current environment (e.g. DNR status)*

## Surveillance

**ORN COVID-19 Tracker**

*Week of April 6 – 10:*

- *As the number of COVID-19 cases continues to grow, RRPs have indicated the importance of tracking the scope and magnitude among patients and across the province*
- *ORN has developed a simple data collection tool in consultation with nephrologists and renal administrators that will be used to gather key information on a minimum weekly basis for:*

- *Patients with chronic kidney disease who are known to Regional Renal Programs and have tested positive for COVID-19*
- *Patients who did not have chronic kidney disease but acquired acute kidney injury and require dialysis as a result of COVID-19*

## Capacity

**ORN COVID-19 Capacity Projection Tool**

*Week of April 13 – 17 :*

- *ORN has developed an in-centre hemodialysis capacity projection tool to forecast and support capacity planning during the response to COVID-19*
  - *Predictive algorithm incorporates assumptions such as the number of patients who will initiate PD and HHD, number of transplants, and mortality rates among other data considerations*
- *Home dialysis utilization may help mitigate increased capacity pressures due to COVID-19*

*Week of April 27 – May 1:*

- *Estimates show that approximately 500 additional in-centre hemodialysis (ICHD) patients should be expected in the next 6-months due to decreased home dialysis and transplant activity*
- *Assuming 25% of transplants volumes, 50% of new peritoneal dialysis patient starts, and no new home hemodialysis patients, we project that by September 2020, 10 programs will be operating at or above 100% capacity, and one program will be operating above 110% capacity.*
- *Increasing PD utilization may be the best way to reduce ICHD overcapacity*

## Home Dialysis during COVID-19

Week of May 4 – 8 :

- PD training is continuing at most RRPs as usual
- HHD training is continuing at some RRPs, with appropriate precautions

- Some RRPs have continued to initiate and support patients on home dialysis through the following strategies :
    - Medical leadership supporting administrative leadership in advocating and prioritizing surgical PD catheter insertions
    - Prioritizing modality education for patients who are about to go on dialysis
    - IR PD catheter insertions have been able to support a decrease in surgical options
    - Urgent start PD to initiate patients nearing dialysis on a home therapy
    - Communication with patients about home dialysis during COVID-19
- Patients are more interested in home dialysis, as it minimizes their time spent in hospital
- Promoting and enabling home dialysis is seen as a mitigation against increasing in-centre hemodialysis capacity due to COVID-19's impact on transplantation and decreased home dialysis initiation
- Humber – innovative solution to provide assisted-HHD that may be helpful in reducing in-centre hemodialysis capacity during COVID-19
    - Has developed expertise in managing patients in retirement homes requiring dialysis through leveraging personal support workers (PSWs)
    - Have agreed to provide dialysis to three LTCHs
    - Training is provided on-site to minimize travel to hospital for patients
    - Using NxStage with pre-mixed bags
    - Costs for providing dialysis in LTCH vs in-centre are neutral, but there are savings in transportation costs
- Some programs are pre-screening on the telephone and providing HHD patients and technicians with PPE to perform preventative maintainance visits

## Infection Prevention and Control Practices in In-Centre Hemodialysis

Week of May 4 – 8 :

- The ORN plans to capture information on key infection prevention and control (IPAC) practices in in-centre hemodialysis units across RRPs, including :
    - Screening
    - Use of PPE
    - Testing
    - Practices related to LTCH patients
    - Outbreak Management

- This information will support management of COVID-19 by sharing key IPAC practices that are in place in ICHD units across Regional Renal Programs (RRPs) in a timely manner, as well as:
    - Track changes over time in IPAC practices at RRPs to manage COVID-19.
    - Inform the response from RRPs to subsequent waves of COVID-19 and/or future infectious disease outbreaks impacting the ICHD population.
    - Provide a descriptive narrative of the response to COVID-19 in ICHD units at RRPs in Ontario.
    - Explore the correlation between changes in infection control practices with the tracking of COVID-19 cases and disease trends in the renal population.
    - Enable research opportunities to study the impact of COVID-19 on renal care delivery in Ontario.
- General support for collection this information

# COVID-19 Issue Specific Calls – Meeting Minutes

## Glomerulonephritis (GN) and COVID-19 – March 25, 2020

***Welcome/Introduction***

*The Ontario Renal Network (ORN) has set up an informational glomerulonephritis (GN) call with administrative and clinical leads from the 27 Regional Renal Programs. The purpose of this call is to provide a forum where nephrologists and other healthcare providers who deliver care for patients with glomerulonephritis (GN) during the COVID-19 situation can ask questions, in particular to the GN patient population.*

*ORN's role is to help facilitate information sharing across the renal network, and ensure access to GN experts to support care for patients with GN during the COVID-19 situation. Nephrologists with expertise in GN have joined the call and are available to share their expertise with regards to caring for GN patients on immunosuppressive medications during a pandemic.*

***Key Messages for GN Care During a Pandemic***

*Sunnybrook GN COVID-19 Handout – Key Messages*

- *Patients should continue to take their immunosuppressive medications unless directed otherwise by their GN team*
- *Patients who are feeling unwell should contact their GN team to guide medication changes*
- *For GN patients on immunosuppression, self -isolation (and not just social distancing) is important for protection*
- *Virtual e-visits are an option for patients at this time and should be utilized wherever possible help maintain self-isolation*

***Q&A Session***

*Question #1:*
*For patients on immunosuppression with respiratory infection symptoms but are not sick enough for admission to hospital, how should these patients be handled?*

***Answer:***

- *Treatment and advice is similar to how you normally would treat any patient on immunosuppressant with an infection, not specific to COVID-19. One might consider holding MMF or Azathioprine for example. In a patient with dehydration, calcineurin inhibitors may need to be held.*
- *No universal answer - decisions have to be very individualized and patient-based as there is not a lot of information as to how this virus affects immunocompromised patients. Decision to change immunosuppression should depend on their condition and overall health.*

*Question #2:*
*There has been some mixed advice on whether to stop ACE-inhibitors – should GN patients discontinue?*

***Answer:***
- *It is not recommended to stop ACE-inhibitors at this point. There is not sufficient data or evidence to support this recommendation*
- *Patients should follow usual sick-day advice, if they are feeling unwell, they should hold these agents to prevent AKI*

*Question #3:*
*For patients on immunosuppression, should they stop going to work?*

***Answer:***
- *Self-isolation is very important for immunocompromised patients, so if they have the ability to work from home, they should.*
- *For those that do need to go into work, patients need to identify ways to reduce their exposure risk. This applies to all forms of immunosuppression and doses of immunosuppression.*

*Question #4:*
*Can the COVID-19 virus lead to a flare in GN patients?*

***Answer:***
- *Unknown, but other febrile illnesses can worsen proteinuria or cause a disease flare.*

*Question #5:*
*Some patients require CNI level monitoring tests at community labs such as Life Labs, but costs for testing for GN patients are still not covered. What can be done?*

***Answer:***

- *The pandemic has highlighted this as an even more urgent access issue as GN patients should not be going into hospitals during a pandemic for CNI level monitoring wherein they could potentially be exposed to the virus.*
- *ORN will follow-up with the Ministry of Health contacts to continue to discuss this as an issue for GN patients.*

*Question #6:*
*For GN patients with Lupus or Vasculitis that are on maintenance immunosuppression, when should these patients discontinue their medications?*

***Answer:***

- *GN patients should not be stopping maintenance immunosuppression. If a GN flare occurs as a result of stopping medications, this would result in the need to treat the patients with more aggressive immunosuppressive agents and would require more lab testing and potential hospital visits – All placing the patient at higher risk from the COVID 19 pandemic. For most patients, we recommend to stay on their course of maintenance medications and taper off later where appropriate*

*Question #7:*
*For patients requiring Rituximab infusions, treatment areas can be crowded. Is there anything that can be done to help reduce exposure for GN patients?*

***Answer:***

- *Dr. Heather Reich commented that her patients have been going to infusions centres (Joint Effort infusion centres) instead of going to the hospitals. The Joint Effort Program can help programs determine where their patients can go for infusions, if they do not wish to go into the hospital. Also, it may be helpful to reach out to the Joint Effort Program to understand their infection control processes, and ensure they have social-distance practices in place.*
- ***NOTE**: Since the call occurred, Sunnybrook has followed up with Innomar, the company that Joint Effort uses for Rituximab infusions, in regards to the question during the call seeking information on what precautions are being taken at this time. The response from Innomar is summarized below.*

***Response from Innomar Re: COVID-19***

- *Innomar services which includes distribution centres, clinics and pharmacy locations continue to remain open.*
- *The World Health Organization (WHO)'s cleaning protocols that have always been practiced continue, with enhanced cleaning protocols at pharmacy locations.*
- *Delivery of drugs continues, though challenges with some courier depots being closed has resulted in some patients not being able to pick up medications where normally done, Innomar is following-up.*
- *COVID-19 focused pre-screening assessments are being conducted for patients on all scheduling and program calls, and at all clinics and home visits.*
- *Social distancing measures are in place at Infusion clinics and surgical masks are provided to patients where appropriate.*
- *Front-line nurses are using Personal Protective Equipment (PPE) including masks, gloves and gowns during clinic and home visits in accordance with public health guidelines.*
- *Family members and friends are being asked not to accompany patients to clinic visits.*
- *Other Innomar staff have been asked to work from home.*
- *Field Case Managers have temporarily stopped making physician office visits, unless exception is needed to ensure critical patient care is provided.*

# COVID-19 – Acute Dialysis – March 27, 2020

***Purpose***

*The Ontario Renal Network (ORN) has set up an issue specific call for Managing AKI for COVID-19 patients in the ICU with administrative and clinical leads from the 27 Regional Renal Programs. The purpose of this call is to provide a forum where nephrologists and other healthcare providers who deliver care for patients requiring dialysis in the ICU during the COVID-19 pandemic can ask questions. ORN's role is to help facilitate information sharing across the renal network.*

***Critical Care Nephrology in the Setting of COVID-19***

*Presentation by Dr. Ron Wald and Dr. Alejandro Meraz Munoz of St. Michael's Hospital. Materials were circulated.*

- *Early studies indicate an overall incidence of 1-23% of AKI in COVID-19 patients*
- *Has been observed to progress in three stages: early infection, pulmonary phase, and hyper inflammation phase*
    - *CRRT/hemoperfusion should be used to remove inflammatory cytokines and molecules*
- *Reference to EUPRHATES trial and IVOIRE trial*
- *Contaminated effluent may present very low risk of COVID-19 transmission*
    - *Blood and urine are infrequent sources of viral particles*
- *Collaboration between nephrology and ICU is essential*
    - *Minimize health care providers exposure to COVID-19*
    - *Limit physical contact with COVID-19 patient and entry into ICU room*
    - *Shared decision making between nephrologists and intensivists for renal replacement therapy prospection*
    - *Should have early goals of care discussions prior to escalation of care*
- *Leveraging longer tubing to position CRRT machines outside of the ICU room can conserve PPE and minimize nursing exposure*
- *However, longer tubing for CRRT must consider the following:*
    - *Drops in pressure would be hard to detect*
    - *Increased circuit blood volume*
    - *Increased risk of clotting*
    - *Excessive blood cooling*
- *CRRT machines may be limited at hospitals, as well as health human resources for this level of care*

- *SLED or intermittent renal replacement therapy may not be available at all programs*
    - *SLED may require dialysis staff to operate machines in the ICU resulting in long time spent at the bedside for COVID-19 patient care*
    - *Many nurses may not be comfortable managing SLED*
- *Acute PD may not be a viable alternative in COVID-19 patients due to extreme difficulty in intubating and prone position of patients. However, it may be used in other patients to conserve HD resources*
- *Key principles for prescribing renal replacement therapy for COVID-19 patients:*
    - *Continue with the AKI treatment your unit does best*
    - *Follow KDIGO guidelines regarding modality choice, dosing, and anticoagulation*
    - *Fluid management will likely be the most important aspect of AKI care for COVID-19 patients.*
    - *"Net negative" is the goal through collaboration with ICU staff*
    - *Should actively monitor innovative practices, but not adopt new therapies based on anecdotal experiences alone*

***Discussion***

- *Baxter's PrisMax system has a feature to empty effluent bag, which can be used to minimize nursing exposure and PPE use*
- *London*
    - *Longer tubing for CRRT may be supplemented by blood-warmer lines to get the machine outside of the room, challenge in getting it through the door*
    - *Using Continuous Venous-Venous Hemofiltration (CVVH) before switching to citrate to minimize clotting*
    - *High usage of citrate in CRRT for COVID-19 patients may result in calcium shortages provincially/nationally*
- *Continuous arterial-venous (CAV) hemodialysis is a fall back option*
- *Shortage of health human resources in dialysis is a big problem due to redeployment to ICU*
- *UHN*
    - *Use SLED for AKI and have all dialysis nurses trained on SLED*
    - *Tubing extension sets can be used to place dialysis machine away from patient*
    - *Multiple dialysis modalities will need to be administered*
    - *Training a critical number of nurses on administering SLED may be important as treatment modalities of dialysis are required for this population*
- *Concern expressed that supply chain from Baxter may be limited as they cope with global need for dialysis equipment*
- *Some programs are using decommissioned home hemo machines for back up*
    - *NxStage machines may not be able to provide back up as they will face a supply chain constrain*

- *A common approach to prescribing care for AKI in COVID-19 patients would be worthwhile to ensure equitable resource utilization and consistency of care*
- *Cardio-pulmonary resuscitation is a high risk procedure and should only be embarked upon when there is reasonable prospect of success*
    - *RRPs are developing codes for resuscitating in non-negative pressure environments (e.g. dialysis units) to limit exposure of COVID-19 to staff and other patients*
- *Dr. Mark Soth, Chief of Critical Care, St. Joseph's Healthcare Hamilton*
    - *If modelling is correct, ICU staff will be stretched providing basic critical care and ventilation and more staff quarantines will occur. This situation will require support from specialty areas, including dialysis*
    - *There would be benefit to a provincial mandate to establish equity in ICU treatment – individual hospitals may have different triggers for clinical decision making that disadvantage patients*
    - *A true triage would suspend DNR consent and require provincial activation/support for intensivist to make public health decisions*
    - *A provincial group has been put together and is developing guidelines*
- *Most cases of COVID-19 in the ESRD population have been chronic dialysis patients*
    - *Goals of care conversations are crucial in the current circumstances*

# COVID-19 – Home Dialysis – March 31, 2020

***Purpose***

*The Ontario Renal Network (ORN) has set up an issue specific call for home dialysis patients with administrative and clinical leads from the 27 Regional Renal Programs. The purpose of this call is to provide a forum where nephrologists and other healthcare providers who deliver care for home dialysis patients during COVID-19 pandemic can ask questions. ORN's role is to help facilitate information sharing across the renal network.*

***COVID-19 Related Issues in Home Dialysis***

*Facilitation by Dr. Phil Boll, Provincial Medical Lead for Peritoneal Dialysis, Dr. Phil McFarlane, Provincial Medical Lead for Hemodialysis and Dr. Jeff Perl of St. Michael's Hospital*

*Dr. Perl is part of a COVID-19 task force for the American Society of Nephrologists (ASN) that is looking at various issues related to home dialysis during the pandemic. Some of the key issues the task force is exploring include, PD catheter insertions, acute PD for AKI, home visits, PPE, delivery and disposal of supplies, telemedicine and decreasing the frequency of labs, and home care. ASN will have a webinar on April 9, 2020 related to these issues.*

*PD Catheter Insertions*

- *Variation in OR and non-OR PD catheter insertions across programs*
- *Should be a priority to get patients home during the pandemic, as it is probably the safest place to receive dialysis right now*
- *London – had previously shut down PD catheter insertions as an non-essential procedure, but has since deemed them essential and is providing percutaneous insertions locally and for Windsor Regional*
- *Many RRPs have limited OR access for surgical PD catheter insertions and are only performing these on a case by case basis*
- *Surgeons have indicated that surgeries are difficult due to PPE shortage, but also when wearing PPE, there can be issues such as overheating and sweating, visual impairment due to goggles, and difficult speaking to nursing staff*

*Assisted-PD*

- *Some patients have experienced issues in receiving care due to lack of nursing availability from CCAC*
- *Proactively looking for most vulnerable patients and developing contingency plans with family members should be explored*

- *PPE has also been identified as an issue for community partners providing home care*

*Supplies*

- *Some shortages in PPE and hand sanitizers – Baxter has backorder for hand sanitizers*
- *Baxter and Fresenius have assured that home dialysis supplies are not impacted*
- *Delivery of supplies – drivers are willing to take supplies into the home with appropriate social distancing or PPE, if family members are not able*
- *Vendors have indicated knowing patient status would be helpful in preparation of deliveries – may be a included in the patient's circle of care*
- *Lakeridge – in the case of emergency, program is able to share patient information – referenced PHIPA section 40*
    - *Other programs indicated they are not able to due to privacy*

*Clinics*

- *Most programs have moved to having virtual clinics, but lab work is a barrier*
- *Orillia Solders' Memorial – Baxter's Amia machine has been helpful in monitoring values remotely*

*Home Training*

- *Programs have reduced home training due to nurses being in self-isolation due to suspected or positive COVID-19 case or redeployment to ICU or IHCD*
- *Many programs have postponed HHD training*

*Staffing*

- *Unity Health Toronto – have determined that dialysis is exempt from redeployment due to specialized clinical skillset, but are also exploring innovative care model of team-based modular nursing care*