Ontario Renal Network – Regional Renal Program COVID-19 Information Calls (week of March 23 – 27)

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

Date:
27 March 2020

Attendees:

Dr. Peter Blake, Rebecca Cooper, Phil Holm, Kieran Bergmann, Angie Yeung, Regional Renal Program Directors, and Nephrology Division Heads, Regional Directors, Regional Medical Leads, Provincial Medical Leads

March 24, 2020 – 10am-11am: 50+ attendees

March 26, 2020 – 2pm -3pm: 60+ attendees

Topic	Key Discussion Points
Purpose	The Ontario Renal Network (ORN) is setting up regular, optional calls with the administrative and medical leads from 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. ORN's role is not to interfere with hospital protocols nor to provide infection control direction. We want to provide support to the network through information sharing, gathering, and dissemination.

Topic	Key Discussion Points

Prevention	Screening
	• *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*
	• *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*
	• 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

Topic	Key Discussion Points
	○ 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 Information Dissemination • *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.* • *GN patient handout shared by Sunnybrook – other RRPs can use/share with patients as needed* • *Patient FAQ website shared by Kingston* • 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 Social Distancing • *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.* • *Some RRPs are still doing regular rounding within in-centre dialysis units, but maintaining distance and using appropriate PPE*

Topic	Key Discussion Points
	• *It was suggested that rounding could be done only for patients where need has been identified* • *RVH – 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* Clinics • *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)* • *RVH – 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* • Opportunity to emphasize home training to get patients out of the hospital while clinics are not busy Access Procedures • *Many RRPs are continuing to insert PD catheters* • *Some RRPs have stopped PD catheter insertions, but are revisiting* • 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 Personal Protective Equipment (PPE) • Some RRPs experiencing shortages in PPE – not all nurses are wearing masks

Topic	Key Discussion Points
	• 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
Suspected or Confirmed COVID-19 Cases	*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).* Droplet/Contact vs. Airborne Precautions • *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.* • *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 • *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*

Topic	Key Discussion Points
	• *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, 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.* • *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* • 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 Provincial Transfer Authorization Centre (PTAC) • 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

Topic	Key Discussion Points
	Dialysis Management Clinics (DMCs) • 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 Independent Health Facilities (IHFs) is anticipated
Multiple Confirmed Cases	Cohorting of COVID-19 patients • *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* • *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 • *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* • *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 • *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* • *While staffing continues to be a big concern, RRPs are considering different options but have not yet changed any staffing models* • RRPs expressed concerns about limiting staff movement between facilities, as was the case during the SARS outbreak

Topic	Key Discussion Points
	○ 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 Management of AKI of COVID-19 Patients in ICU Setting • *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* • *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* • 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
Assisted PD	*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 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*
Transplant	*Pre-Transplant Considerations* • *Living donors willingness to travel given current travel restrictions* • *Screening re travel history of living donors*

Topic	Key Discussion Points
	• *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* • *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* • *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* *Trillium Gift of Life Network Medical Director provided an update:* • *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*
ORN Performance Management	• 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)

APPENDIX A

Questions for Regional Renal Programs concerning COVID-19 in Ontario

FOR DISCUSSION PURPOSES. Questions are intended as guidance only and should not be seen as directive from the Ontario Renal Network.

A. Prevention

1. Do you have a policy informing in centre HD patients what to do if they have fever and cough +/- history of relevant travel or of exposure to other people with relevant travel?
2. Should they come to the unit or be reviewed by phone or go elsewhere if there is reason for concern?
3. Do you have a policy informing in centre HD staff what to do if they have fever and cough +/- history of relevant travel or of exposure to other people with relevant travel?
4. Should in centre HD staff come to work at or be reviewed by phone or go elsewhere if there is reason for concern?
5. Have you considered policies to introduce more 'social distance' where feasible between HD patients, other HD patients and HD staff?
6. There are multiple documents circulating to staff and even patients about COVID-19 and these may cause confusion. Have you a strategy to deal with this?
7. Do you have a good line of communication to your hospital infection prevention and control team and do you think they recognize specific issues related to in centre HD?
8. Is your hospital and/or in-centre HD unit screening patients? Who is doing the screening (i.e. clinical vs. non-clinical staff)? Are they wearing appropriate PPE?
9. Are you able to provide surgical masks for your HD nurses even if limited to 1 or 2 daily?
10. What is your criteria for quarantining exposed/unwell staff?
11. How are you communicating to patients about changing policies and protocols?

B. Scenario where one HD patient has confirmed or strongly suspected COVID-19 virus

1. Where and when would you dialyze that patient to minimize risk to other patients and staff?
2. Where would the patient be 'hospitalized' between HD treatments?
3. In this scenario would all staff and patients mask while in the same HD unit as the affected patient?
4. In this scenario, would you have a dedicated HD machine?
5. Are the HD staff comfortable and up to date with PPE (N95s etc)?
6. Are your staff aware of your plan?
7. What is your criteria for swabbing patients and/or staff?
8. Are you able to get urgent swabs done and reported on within 24 hours?
9. How will you transport suspected or positive cases to and from HD treatments? Will you admit all positive patients?

C. Scenario where multiple HD patients have confirmed or suspected COVID-19:

1. Would you consolidate infected patients in one area or one of your HD units in such an event and, if so, do you know where?
2. Is your hospital infection prevention/control team aware of these potential HD issues and especially of the point that infected HD patients will require admission even if relatively well?
3. Do you have a plan to reduce some HD patients to 2 dialysis treatments weekly, where appropriate, if you have capacity limitations?
4. How will you manage/maintain staffing in these scenarios (e.g. bring in staff from other areas, retired staff, etc.)?

D. Home Dialysis Issues:

1. What would you do if assisted PD program in one or more of your regions was compromised by lack of home care staff to deliver it?
2. Are you continuing to insert PD catheters? What is your plan if your hospital decides to stop inserting PD catheters?
3. Will you continue to train new home dialysis patients?

E. AKI in COVID ICU Patients:

1. Would you use CRRT, SLED, conventional HD (or all 3)?
2. How can the program cope with double or triple the volume of patients requiring acute dialysis?
3. Will there be enough machines, supplies/solutions, and staff?
4. What would be the role of the nephrologists vs. intensivists? What would be the role of renal nurses vs. ICU nurses?
5. Have you a clear and available record of code status of your dialysis patients?

F. Other Outpatient Groups:

1. Are you cancelling in-person clinic visits and/or converting to virtual/phone visits where possible?
2. What instructions are you providing to immunosuppressed or vulnerable patients?

Date of Questions: Last Updated March 27, 2020

Consulted: Dr. Peter Blake, Provincial Medical Director, Ontario Renal Network
Dr. Phil McFarlane, Provincial Medical Lead, Ontario Renal Network
Dr. Scott Brimble, Provincial Medical Lead, Ontario Renal Network
Dr. Matthew Oliver, Regional Medical Lead, Toronto Central Region, Ontario Renal Network
Rick Badzioch, Leadership Regional Director, Ontario Renal Network

Approved by: Dr. Peter Blake, Provincial Medical Director, Ontario Renal Network
Rebecca Cooper, Director, Clinical Programs, Ontario Renal Network

Key Contact: Rebecca Cooper, Director, Clinical Programs, Ontario Renal Network Rebecca.cooper@renalnetwork.on.ca

APPENDIX B

Ontario Renal Network – Regional Renal Program Information Call: Glomerulonephritis (GN) and COVID-19

Date:
March 25, 2020

Attendees:	Dr. Michelle Hladunewich, Dr. Peter Blake, Rebecca Cooper, Daphne Sniekers, Jessie Wong, Regional Renal Program Directors and Nephrology Division Heads, Regional Medical Leads, GN Regional Renal Program Leads, GN Priority Panel Members. 50+ attendees

Topic	Key Discussion Points
Welcome/Introduction [Jessie Wong]	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 [Dr.	**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

Topic	Key Discussion Points
Michelle Hladunewich]	• Virtual e-visits are an option for patients at this time and should be utilized wherever possible help maintain self-isolation
Q&A Session [Dr. Michelle Hladunewich]	**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.

Topic	Key Discussion Points
	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

Topic	Key Discussion Points
	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.

APPENDIX C

Ontario Renal Network – Regional Renal Program call re: COVID-19 - Acute Dialysis

Date:
March 27, 2020

Attendees:	Dr. Ron Wald, Dr. Alejandro Meraz Munoz, Dr. Peter Blake, Rebecca Cooper, Angie Yeung, Regional Renal Program Directors and Nephrology Division Heads, and Regional Medical Leads, Nephrologists, Intensivists 80+ attendees

Topic	Key Discussion Points
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

Topic	Key Discussion Points

	• 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

Topic	Key Discussion Points
	○ 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