NNJ NEPHROLOGY NURSING JOURNAL

COVID-19 Pandemic: Nephrology Experiences – Voices from the Frontlines: Part 2

Beth Ulrich, EdD, RN, FACHE, FAONL, FAAN (Editor)

Over the first months of the COVID-19 pandemic, the *Nephrology Nursing Journal* began a project to capture the COVID-19 pandemic experiences of nephrology nurses and other nephrology health care professionals. This is Part 2 of those experiences – examples of the responses to the questions "What have been your biggest challenges?" and "What have been your biggest successes?" In subsequent articles, we will report best practices and ethical issues.

Ulrich, B. (Ed.). (2020). COVID-19 pandemic: Nephrology experiences – Voices from the frontlines: Part 2. *Nephrology Nursing Journal, 47*(5), 413-419. https://doi.org/10.37526/1526-744X.2020.47.5.413

What have been your biggest challenges?

Delivering the right care, in the right place at the right time is a strategic priority for safe healthcare, even during a pandemic. Confronting a 260% increase in weekly volume of bedside dialysis treatments, the team needed to rely on infrastructure and leadership to support this unprecedented increase in volume. Nurse workload, machine utilization, schedule changes, and overall capacity were four major challenges our dialysis team faced. A plan was created and executed at the onset of the COVID-19 pandemic to address the anticipated shortage of dialysis-trained staff due to expected surge of patients. First, we contacted the Incident Command Center to request redeployment of any trained dialysis staff in the hospital to meet the need of increased volume. This plan entailed identifying staff with prior dialysis experience from other areas in the hospital. Many came from areas with a decrease in volume due to the pandemic. When the call went out for help, we were surprised to see (previously unknown) dialysis-experienced staff that toured the unit and offered to redeploy with our team. Once a team of trained dialysis staff was formulated, they were fast-tracked through dialysis competencies by our nurse preceptors to become team-ready. During this time, the dialysis nurse manager had a brief absence – which added to the challenge. One observation was evident: the resilience and autonomy of our dialysis team to persevere. The team was able to use prior knowledge and experiences to keep daily operations seamless. To maximize scarce dialysis technology resources, a master schedule was created to allow for each of our bedside dialysis machines to be in use 24/7. Since the demand for treatments in the inpatient dialysis unit was down, the CHHTs' skills were deployed in a new way. They transported and set up the travel dialysis machines to Step Down and Critical Care, allowing for nursing to function at the top of their license with patient care. This simple adjustment produced more efficiency between treatments and allowed nursing to get much needed breaks between the long hours of dialysis treatments and ensure nursing self-care. While this was not in the typical CHHT workflow, this demonstrated willingness and enthusiasm to adapt and assist the team to get the job done. This speaks to the quality and commitment of all team members. With the COVID-19 surge and need for renal replacement therapy continued, the hospital ran low on critical needed continuous veno-venous hemofiltration (CVVH) replacement therapy supplies. This supply chain shortage also created an increased demand for our team to perform hemodialysis treatments.

While we are reaching more patients virtually, the personalized support and conversations are not the same. I miss seeing and conversing with patients and families at our in-person events.

Beth Ulrich, EdD, RN, FACHE, FAONL, FAAN, is a Professor at the Cizik School of Nursing, the University of Texas Health Science Center at Houston; the Editor-in-Chief of the *Nephrology Nursing Journal*; and a Past President of the American Nephrology Nurses Association. She is a member of ANNA's Gulf Coast Chapter.

Editor-in-Chief's Note: These experiences are presented as they were submitted. Names of all respondents in this article have been withheld.

The biggest challenge during the COVID-19 pandemic came during the first few weeks of the pandemic's spread into the state. Ironically, it was the same patient that was to be the first dialyzed with concerns for COVID-19 in our area. This patient typically dialyzed at another center I round at. His roommate at the incenter rehab center he was at had contracted COVID-19, with the patient starting to show symptoms. Eventually, he had been able to return to his usual dialysis center for care. In rounding at this unit, one of the staff told me the nurse practitioner at the rehab center he was staying at was reporting he no longer needed dialysis. As a little background on this patient, I had seen him previously in the outpatient clinic for CKD Stage 3B. After developing serious cardiac issues with ensuing complications, his renal status had progressed to ESRD. He hadn't been on hemodialysis very long at this point. To make a long story short, the nurse practitioner in his rehab center had looked at one set of labs done after hemodialysis and decided he no longer needed dialysis. She told this to both the patient and his family, and was pushing to not have him leave the center for his hemodialysis sessions. One can only imagine the chaos this caused for this patient and his family, and the dialysis staff went out of their way to provide education to the staff at the rehab center. I made myself available to discuss this NP's concerns, and my cell phone number was given to the head of nursing to share with her when she made her rounds. Sadly, she never reached out but did continue to draw labs that she insisted continued to show "he didn't need dialysis" to the point his hemoglobin started significantly decreasing. I was able to talk with the patient about the situation, who understandably was disappointed that his renal function hadn't improved. He was able to be discharged from the center soon after. In looking at this situation, the biggest challenge was dealing with fear. At the time, the major outbreaks of COVID-19 were in the incenter rehab center and nursing homes. We understood the pressures these centers were under to care for their patients. However, it is important to know what you don't know, and it is very concerning the lack of knowledge this particular NP had about ESRD and dialysis. In talking with the dialysis nurses and techs I have the pleasure of working with, I am hearing this lack of knowledge is not uncommon. In thinking about the above situation, I have found I am even more passionate about educating others about renal issues, whether this is fellow health care providers or patients. I am fortunate to work with wonderful organizations such as ANNA who are also passionate about renal education.

PPE and wearing all the time for hours. Sweating. Just being uncomfortable. Planning supplies into the room is challenging also for acutes.

The unknown and the constantly changing guidelines and expectations.

The new guidelines and procedures that take longer with continued limited staffing.

The biggest challenge is when we're asked to dialyze two positive stable patients in our unit. I felt sorry for my staff because they're requesting to wear an overall suit, but it is available only in ICUs and ER. I supported my staff from taking patients from the gate, during HD treatment, and sending back patients to the same gate entered. Another challenge is assigning of staff. Thank God that my staff are convinced that it should be same person to dialyze the patient so that only one will be exposed. I arranged her schedule according dialysis days of the patient. I'm always revising the nurses' rotation every day because some staff quarantine extended and there are staff swabbed due to symptoms.

Facing and living with uncertainties brought about by COVID-19. Fighting off fear and anxieties. The initial challenge was overcoming the fear and anxiety of contracting the disease after possible exposure. The uncertainties that we faced during the early days did little to allay my anxieties. Not knowing exactly how it can be transmitted and how can it can be stopped from spreading made me nervously apprehensive. Being in the room with the patient for the whole duration of HD treatment when you are told to minimize exposure to infected patients by clustering their care was confusing. You are made to choose between staying in the room for hours on end using the appropriate PPEs or risk going in and out of the room, forgetting to use the proper PPE because you are in a rush to reset the alarms going off from the HD machines. Not knowing which patients will be assigned to you and just hoping that your 10- to 12-hour shift will be COVID-free treatments was frightening. Staff being sick and on medical leave because they are immunocompromised left us with insufficient staffing. The amount of HD treatments the

patients require draws the line of how much time we can be exposed to the virus. Being reminded that we must reuse our PPEs appropriately as needed was demoralizing as we start to question our importance in this fight. Not knowing who among our patients were asymptomatic carriers because of limited testing fueled our anger at times. We had exposures unknown to us in the early days, but thankfully, we remained healthy. Not all rooms in the hospital are dialysis-equipped rooms, so we plumbed the faucets with connectors to convert them to be one. Squeezing our machines into tiny spaces when we do bedside dialysis was tedious and frustrating at times.

Creating a balance of the emotional aspect of what the staff have to undergo on a daily basis in caring of COVID patients

Getting results back from testing was very slow at first, so any PUI patient had to be treated and isolated the same way. We would try to defer the dialysis treatment till results were back to prevent staff from being exposed unnecessarily, but that sometimes became challenging. The hospital did an excellent job of creating negative airflow rooms, but many of those were rooms did not have a window for outside viewing. That meant if a patient was positive, the staff had to spend long hours in a patient's room doing a dialysis treatment because there was no way to visualize them from outside.

I have asthma. It is very difficult to breath with the N95s and surgical masks for as long as it takes to care for the acute dialysis treatments. Sometimes I even get lightheaded and can feel a little bit panicky. When I complete those runs, I have an overwhelming sense of sensory overload. Between that and how hard you sweat with all that gear on, it is physically and mentally exhausting.

Working with staff to overcome their fear and getting proper PPE. Also, in the beginning, resisting nursing administration's attempts to tell staff not to mask for all patient contact. I even wrote an email to the CEO telling him that we should be masking for all patient contact, especially unknown patients.

I am a unit director of dialysis for three hospitals, and I have just been through an ordeal. As a manager, I am required to look at the whole picture and make decisions that are best for all involved. This is not easy, and I understand how other management is stuck with this dilemma. The following is meant to shed light on the whole ethical issue so we can grow together. The issue: (1) The PPE is sufficient for up to 8 hours of continuous use. There is no YouTuber or media self-proclaimed authority opinion that can change the reality of both data and experience. The N95, visor/goggles, gloves, and gown combo is as perfect for COVID-19 as it is for TB. (2) Ethics forbid us to discriminate against patients due to their diagnosis or compromise their safety (even in the face of unknowns). (3) Staff are concerned about their health with an unknown disease. (4) The PPE is in fact difficult to wear for extended times. I was wrong in my first response to the issue, in that I felt since the PPE was demonstrated adequate the patient safety and non-discrimination of care was at the forefront. Some of the staff did not communicate with me well (perhaps this was a barrier from me). What the few said was that they didn't trust the PPE. They didn't articulate a valid reason. This was responded to with education. The other concern was that the PPE is "uncomfortable." Their solution was the vaguely written CDC recommendation to "limit time" with the patient, use video monitoring, do not allow the patient to bleed out (paraphrased). Both of the staff arguments are not valid to warrant sacrifice of patient safety (leaving the room), which is a discrimination based on diagnosis. I spent days trying fruitlessly to validate anything on their behalf. The CDC does not say "monitor the treatment from outside the room." It says "limit time." And it specifically says to not sacrifice patient safety. How can a staff be outside the room, without PPE (or if they do have PPE it can't be contaminated, which means they have used another set in the midst of shortages), and if an event occurs, don PPE safely and be inside the room in time to save the patient? This is a tall order: to allow outside monitoring that wouldn't be considered hazardous discrimination. As I said, I was wrong in my initial response, which was in part due to poor staff communication. I volunteered during the Ebola scare as the trained dialysis RN for treatments. I also do a share of the COVID-19-positive patient treatments. I have no problems with the PPE or the personal safety issues, so it's difficult for me to understand these staff concerns. But when one of my staff used the word "exhausting" to describe their PPE experience...now that triggers me to think staff and patient safety both. Solution: If either staff or patient safety is questionable (exhaustion, can't breathe, syncope), that I will take anywhere to fix. Our solution was: nephrologists keep treatment times lower, staff (usually me) offers a 20-minute break or divides the treatment when possible. And we are gearing up with baby monitors to allow periods outside at the discretion of the professional nurse caring for the patient. I am still concerned about the total ethics package. Staff need to feel as safe as the patient. They also need to practice via evidence, not possibilities. The care cannot be compromised. We are all practicing in a world of uncertainty, and whose information to trust? This is the most difficult time I've ever had in leading. I just know I love my people (patients and staff). And at the end of the day, I trust in the one thing a know I can trust to work it out for is all. We're all in this together.

Staying in patient rooms for hours at a time just to go to the next COVID room for hours at a time. Wearing CAPR and mask all day.

Staying positive.

The biggest challenges we faced as an acute unit was staffing, patient load, lack of equipment, nurse burnout, and patient instability due to high volumes of hyperkalemia.

Donning and doffing PPEs, wearing a mask all the time, bringing PPE supplies that the unit might not have since there have been so many changes in PPE since COVID had evolved.

Worrying that renal patients may not come to their treatments because the media is saturated with authorities reminding people to "stay home."

The biggest challenge by far has been the astounding lack of training, education, and PPE consistency. And reusing an N95 I think is unacceptable. We also reused plastic gowns that multiple staff wore and just wiped down. It had been used for days and was hung outside room for reuse for the next person. At another place, they hung the reused gown inside the room. Nothing made sense. At yet another hospital, they had a dedicated COVID unit where everyone wore PPE all the time, even at nurses' desk. I asked where I could use bathroom and they told me to just wear all my PPE into the employee bathroom. I was shocked to hear them say to wear dirty PPE into the staff restroom, and I wondered, who came up with these ideas? I have gathered all my own PPE – mostly, my company has been able to provide us with more PPE then the hospitals give. Another challenge is feeling isolated. For example, my brother does not want me around his kids until there is a vaccine. My friend was hysterical when she saw me with a mask on for a short visit and then found out I had been with COVID patients. She called all her family and told them she was exposed, just because she was around me. I feel like what I do for a living has made me miss out on parts of life that I may never get back. I cried for weeks wondering when I would get sick.

My units are fully stocked with PPE. For that I am grateful. What's frustrating is the changing rules. When a patient tests positive for COVID-19, we've been sending them to a separate dialysis center for at least 14 days. Some are assessed by a nephrologist before returning to their home clinic, but not all. None are retested. I just had a patient return to me after 20 days treating elsewhere because of positive COVID-19 (asymptotic). I sent him to the hospital for a thrombectomy. They tested him for COVID, and he is positive (still, or again. I don't know). Now what do I do? The unit wants to keep him at his home clinic. I want to start over and send him to a designated COVID clinic.

The beginning was most difficult with the uncertainty, fear, and anxiety; not knowing what will happen, not knowing if we will become a 'hot spot,' wondering how we will cope if we become a 'hot spot,' feeling compassion for our colleagues who are in the 'hot spots' caring for patients. At times, it was difficult to know if PPE will be there if we need it – were we going to run out? How would we care for patients if that were to happen? We still are required to sign out masks and limit how many we wear in a shift. I started to wear a mask in dialysis before it was required as I was concerned about being positive and not having any symptoms and not knowing it and didn't want to be a vector and possibly expose many patients in a day during rounds. Trust is a big issue – trusting where the information is coming from and why.

Getting our typical cleaning supplies and PPE. I have had to explain Standard of Care in Dialysis. I have had to explain why certain cleaning agents are not acceptable for our equipment. I have had to impress upon others why PPE practice is not over-indulged in dialysis. Being scared that one of us would contract COVID.

My biggest challenge was coming home after taking care of these patients. My 94-year-old mother-in-law is with me. I don't want to spread the infection to her and my husband, as well as my children.

Reducing contact and still showing that you care for the patient. So much of the equipment outside the room and so little human contact or voices for these folks.

Making sure our patients are comfortable wearing masks during treatment. We require that patients and staff wear masks at all times.

Coordinating return to outpatient facilities. Deciding what works best for us in an ICU setting.

At first it was the absence of administrative leadership who were in quarantine, and the going forward motion that was needed to make changes to our physical unit and that this needed to occur urgently. This was as a result of close partnership with physicians and my Program Medical Chair, who was directing the key facets of events happening in other countries so we were ahead of the wave if/when it hit in Canada. After some time, the formal leadership also bought into the urgency of the situation which, when that barrier and criticism was lifted, other aspects became easier to navigate. The second challenge was convincing patients to the seriousness of the situation (use of PPE, reduced visitors, reduced personal devices, etc). That took some time; however, it has demonstrated that those key aspects reduced the existence of COVID in our unit. Also determining a code blue algorithm, taking into account practices that enhance aerosolization of virus, amendable practices within our stand-alone unit (we are in a shopping mall, not in hospital proper), and communication/education of this policy among staff to maintain their safety.

What have been your biggest successes?

An increase in testing and testing turnaround time now allows for a patient to be identified as negative or positive in a timely manner – often in less than two hours. Our nephrology physician collaboration with the dialysis staff has always been positive, but their support of the dialysis nurses went above and beyond during this special time. That led itself to an amazing and positive work environment and teamwork. They went out of their way to make sure that staff had PPE supplies by bringing in masks, making shields, headbands/strap holders, etc. They collaborated with infection prevention to put in some infection practices around masking of staff, patients, and limiting visitors, even before it became standard within the organization. Our attendings have also provided lunch for the staff each Friday. As the unit manager, daily collaboration was done with our hospital bed placement team and inpatient unit managers as needed to place all our COVID+ patients on units that did have rooms with windows; this allowed the staff to be able to view the patient from outside the room and limit exposure. As a result, we have had no staff exposures to date. We have had several patients recover renal function, and we are now are seeing some of our longer admits recover from their COVID infection and come off isolation. It is important to share the success stories! As of this writing, the hospital system has discharged over 2200 patients back to their homes!

Patients making it out of the ICU and getting better to go home and see their family.

None of our staff were infected with COVID despite caring for the patients three times a week. We had excellent PPE use and had N95s available for our dialysis staff.

Successful metrics with patient engagement during virtual educational events.

Keeping COVID out of our unit and maintaining supplies during critical shortages in our country.

Our biggest success so far, even though we are dialyzing positive patients, no one is exhibiting symptoms among my staff, even the ones handling those positive patients. Upon tracing, we found out that our two patients got positive results because in their home there's a family member who were sick and COVID-positive. I am happy that my staff are not the source of positive results.

Stayed healthy during the whole ordeal. Worked every day as scheduled. No vacations nor stay-cations. Enhanced mental health and spiritual well-being. The tremendous support from our hospital leaders and nephrologists made the difference. We had appropriate and enough PPEs despite being told to conserve and re-use. We were given enough time to care for our patients. Hospital scrubs were provided, and shower rooms were made available after our shifts to ensure that we don't bring home infectious agents to our families. Meals (breakfast, lunch, dinner, snacks), housing (hotels), and transportation (shuttle buses) were generously provided by our hospital. Words of encouragement and gratitude from our leaders gave us moral boosts and confidence in dealing with the pandemic. We performed dialysis treatments to about 20 to 25 patients safely and uneventfully every day. None of our staff who took care of COVID-19 patients became sick. Our nephrolo-

gists had collaborative efforts with other nursing units to perform other renal replacement therapies like CVVHD and PD when conventional HD was unsuitable. We had no HD line infections, and we managed to reverse some patients who had COVID-19-related acute renal failure. We strengthened our teamwork – HD nurses and HD techs. We improved our efficiency as our techs became more involved in setting up and stripping down our machines and doing more technical stuff as needed.

Our biggest success was keeping our team and patients safe. This mirrors the hospital's nursing professional practice model. The science, advocacy, ethics, and art of nursing were personified in the model and were exemplars of how the scope of nursing practice and the nursing role enhanced the human experience, even during a pandemic. One exemplar of advocacy and science from the model was shown when the dialysis team became the first unit within the hospital to have all employees and patients wear surgical masks. The only patients who could come to our eight-station unit were COVID-19-negative. Due to the community spread of COVID-19 and potential for asymptomatic carriers, surgical masks were donned to protect the immunocompromised ESRD patients. This action decreased anxiety of potentially spreading and becoming infected for both patients and staff. Initially, all medical-surgical COVID-19-positive patients were treated in isolation as a bedside treatment. With the increase in critically ill patients limiting our machine resources, a plan was created for a "COVID-19 Shift" at the inpatient unit. An interprofessional team consisting of Nursing Director, Medical Director, Dialysis Nurse Manager, Dialysis Clinical Leader, Infectious Disease Nurse, and members from environmental service and engineering created a plan to bring all stable COVID-19-positive patients into the dialysis unit. The shift minimized the possibility of transmission of COVID-19 while maximizing our resources. The designated "COVID-19 Shift" freed up bedside resources by 25%, allowing us to deliver more treatments to those who were critically ill. Our dialysis equipment technician was a key role in our success. He was proactive in keeping a minimum of 30 days supplies on hand and ensured that all dialysis equipment was in constant working order. His innovation for the creation of additional extension tubes to reach water sources and the use of universal water connections for the dialysis reverse osmosis machines led to our ability to dialyze patients that normally could not be performed due to COVID-19 isolation.

Emotional support, education, daily struggles of logistics, resources while providing continued support from leadership and other stakeholders to ensure a safe environment for patients and staff.

Advocating for my fellow nurses to get proper PPE and to know they have a right to step outside and monitor from a distance if the treatment is stable. Reassuring patients who are frightened and alone.

Role modeling going in the rooms with COVID patients. I wouldn't ask staff to do what I wouldn't do myself.

Service recovery. Unfortunately, the lack of personal family contact has made service recovery a vital part of life. We can't know there is a problem till too late now. I've been able to creatively follow up and provide the shared concerns and care for the patient. But we need to get better at the virtual world or something else to avoid the need.

Not sure I feel any sense of success. Only three patients have survived ventilation out of nearly 100.

The teamwork of other fellow employees and other disciplines.

The biggest successes we had was the teamwork as an acute unit was at an all-time high. Every nurse worked daily for the patients and for each other. It was truly amazing to see.

I would say very little. I have successfully not gotten sick, but I think that has more to do with my overall health then the disappointing PPE protocols. We had one patient get better who was on CRRT, the rest have died. I haven't seen much good come from this yet, and I don't feel like we are successfully beating it at all.

We did a lot of communication within our program with teleconferences and updates several times a week, now reduced to weekly. We had a patient representative on our task group to bring forward that perspective. I tried to be agile to all the changes and 'go with the flow' of the decisions made, accepting that practices will change rapidly and frequently.

We discussed and shared each COVID treatment on dialysis with our nephrologists so we could come up with baseline strategies and alternatives. When one modality did not work, we tried another and another until we had success. We participated in webinars and conference calls, and learned as we went forward. No idea was held back. Everyone had a voice. Dialysis team – coming together all hours of day and night to get through any situation.

My success – even though I diagnosed positive for COVID, so far my husband and mother-in-law are safe. From April 1, 2020, I was on home isolation. My family followed all CDC recommendations, and my son got infected. He is also recovered. I was worrying about my husband and mother-in-law because of their age. Thank God for taking care of them.

Maintaining a totally negative staff to man the unit, thanks to hospital supervisors and my organization's ingenuity getting inventory of PPE.

Staff feel safe. Only one positive staff member early on, likely from community spread. Everyone's concerns are heard. Daily Zoom meetings. Hospital very open with information.

We have yet to have a positive case. I feel that as a staff of nurses, we have gained greater trust and confidence in one another. The nursing staff have shown incredible resilience within the unit. Our allied health colleagues have altered their model of care to more of a virtual one, which has also incredibly helped the continuation of holistic care.