COVID-19

An End Stage Renal Disease (ESRD) National Coordinating Center (NCC) Professional Education Webinar

April 21, 2021

COVID-19 = Coronavirus Disease 2019

Agenda

- What is this call about?
- Today's speakers:
  - Leonid Pravoverov, MD, FASN—Physician Lead, Kaiser Permanente
  - Sijie Zheng, MD, PhD, FASN—Senior Partner, Kaiser Permanente
- Topic: Kaiser Permanente Northern California Home Dialysis Program
- Questions and answers (Q&As) from chat and Q&A panels

What Is This Call About?

- Hear from stakeholders and peers in the ESRD community who are adapting to COVID-19.
- Share examples and provide real-world strategies for facilities to use.
- Engage in bi-monthly calls on varying topics.

PERMANENTE MEDICINE®

Kaiser Permanente (KP) Northern California Home Dialysis Program

Presenters:

Leonid Pravoverov, MD FASN
Physician Lead KP National Renal Care Services
Medical Director ESRD Contracted Services TPMG

Sijie Zheng, MD, PHD, FASN
Nephrologist, East Bay TPMG

April 2021

KAISER PERMANENTE®

Objectives

1. Home Dialysis First approach: “Why not peritoneal (PD)/home hemodialysis (HHD)” at the time of COVID19? In-center hemodialysis (ICHD) is not the default renal replacement therapy.
2. Multidisciplinary approach: “It takes a village to take care of dialysis patients.”
3. Support patients at home after training at PD/HHD center.
4. Take advantage of “Telehealth” during the pandemic and maximize video visits.

Agenda

Our presentation will cover:

- Patient stories
- Telehealth options
  - Phone, video, classes, supportive care
- Urgent PD starts
  - Interventional radiology (IR) vs. PD-catheter placement
  - Network for outpatient support for new PD patients
- Home support for PD
    - Assisted PD at home
- Optimal transition units

Case #1: Return to Dialysis

- 70 y.o. male with ESRD due to Lupus Nephritis.
- Was on ICHD via a left upper arm fistula.
- Received a living unrelated kidney transplant 5 years ago.
- Did not follow up regularly:
  - Alternating living with 2 of his family members in 2 cities of Northern California
  - Alternating nephrologists between Kaiser Permanente and VA
- Presented to emergency room with acute kidney injury.
  - Found to have low prograf level.
  - He did report forgetting a few doses here and there.
  - Biopsy showed acute rejection with severe tubular atrophy and interstitial fibrosis.

Case #1: Return to Dialysis

- Treated with high-dose steroid and other immunosuppressants.
- Returned to the transplant center with worsening kidney function and electrolyte disturbance.
- Started on hemodialysis via a femoral central venous catheter.
- His case was presented at our monthly multidisciplinary conference:
  - Vascular surgeons
  - Interventional radiologists
  - Nephrologists
  - Social workers
  - Renal case managers/RNs
- Venogram was reviewed by the whole team.
- Conclusion was made that he has exhausted vascular access for fistula or graft.

Case #1: Return to Dialysis

- What are you going to do?
  - A. Femoral central venous catheter for life:
    1. ICHD
    2. HHD
  - B. Relist him for transplant.
  - C. Hope his transplant graft can return some function and he can be off HD.
  - D. PD

Case #1: Return to Dialysis

- Discussed with him being on PD; he is not interested.
- Discussed with him being on Optimal Transition Program; he reluctantly agreed.
- Discharged him from the hospital to ICHD clinic with Optimal Transition Program.

Perspective from the American Journal of Kidney Disease

Improving Incident ESRD Care Via a Transitional Care Unit

Brendan Bowman, Sijie Zheng, Alex yang, Brigitte, Schiller, José A. Morlin, Melvin Seek, and Robert S. Lockridge

Abstract

Dialysis care in the United States continues to move toward an emphasis on continuous quality improvement and performance benchmarking. Government- and industry-sponsored programs have evolved to assess and incentivize outcomes for many components of end-stage renal disease care. One aspect that remains largely unaddressed at a systemic level is the high-risk transition period from chronic kidney disease and acute kidney injury to permanent dialysis dependence. Incident dialysis patients experience disproportionately high mortality and hospitalization rates coupled with high costs. This article reviews the clinical case for a special emphasis on this transition period, reviews published literature regarding prior transitional care programs, and proposes a novel iteration of the first 30 days of dialysis care: the transitional care unit (TCU). The goal of a TCU is to improve awareness of all aspects of renal replacement therapy, including modalities, access, transplantation options, and nutritional and psychosocial aspects of the disease. This enables patients to make truly informed decisions regarding their care. The TCU model is open to all patients, including incident patients with end-stage renal disease, those for whom peritoneal dialysis is failing, or those with failing transplants. This model may be especially beneficial to those who are deemed inadequately prepared or "crash start" patients.

Source: Bowman B, Zheng S, Yang A, et al. Improving Incident ESRD Care Via a Transitional Care Unit. American Journal of Kidney Disease. 72(2):278–283. Published online March 3, 2018. Accessed on April 4, 2021. Available at https://pubmed.ncbi.nlm.nih.gov/29510919/.

Case #1: Return to Dialysis

- Patient chose PD after 4 weeks of Optimal Transitional Program at the in-center hemodialysis clinic.
- However, his apartment is very small.
- Continued discussion of PD at every visit with patient and OT nurse continued to educate him during his regular hemodialysis treatments.
- Finally, he got a bigger apartment a few months later.
- PD catheter was placed by the general surgeon.
- Started on PD training.

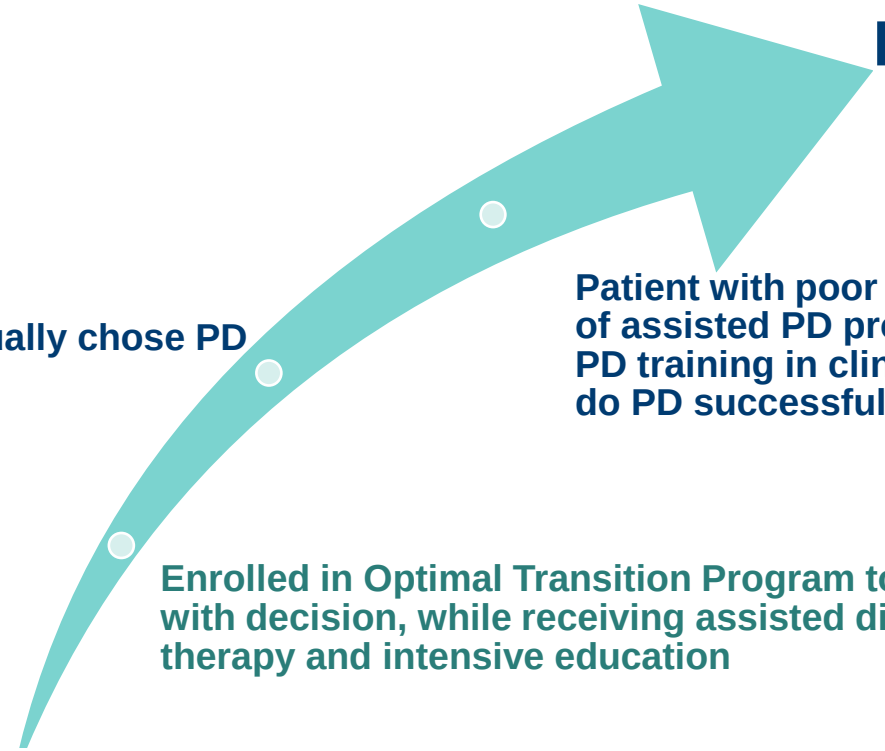
Case #1: Return to Dialysis

- PD training was a challenging process due to his poor memory.
- Finally, he learned PD, but we were concerned how he would do when he started treatment at home.
- Pilot-Assisted PD program just initiated at our PD clinic.
- Patient underwent a PD program at home.
- Doing PD independently.

Perspective in the Clinical Journal of the American Society of Nephrology (CJASN)

Making Assisted Peritoneal Dialysis a Reality in the United States | A Canadian and American Viewpoint
Oliver M, Salenger P. CJASN 15, 2020. doi: https://doi.org/10.2215/CJN.11800919.

Every Patient Tells A Story, Especially, During the Pandemic ...



Fully independent on PD now

Patient with poor memory took advantage of assisted PD program after completion of PD training in clinic to ensure that he can do PD successfully at home

Eventually chose PD

Enrolled in Optimal Transition Program to assist with decision, while receiving assisted dialysis therapy and intensive education

70 y.o. patient with a failing kidney transplant graft, started urgently with a femoral dialysis catheter, admitted to ICHD

Case #2 Incident Patient Does Not Want to Start Dialysis

- 60 y.o. male with poorly controlled diabetes mellitus and hypertension.
- Presented with eGFR around 15 ml/min/1.72m^2 at the chronic kidney disease (CKD) clinic.
- Does not believe he has advanced CKD.
- Multiple visits with me and our team, including:
  - Face-to-face
  - Telephone visits
  - Emails
  - Video visits
- Gradually declined kidney function to eGFR around 8 ml/min with nausea, vomiting, and mild electrolyte disturbance.

eGFR = estimated glomerular filtration rate

Case #2 Incident Patient Does Not Want to Start Dialysis

- What are you going to do?
  A. Start on ICHD with a dialysis catheter.
  B. Start on ICHD with a dialysis catheter.
  C. Start on ICHD with a dialysis catheter.
  D. Urgent PD start.

Case #2 Incident Patient Does Not Want to Start Dialysis

- Does not want to start dialysis.
- Visited ICHD and PD clinic.
- Decided he does not want ICHD (COVID).
- Continue support patient during this period with virtual visits:
  - Telephone visits
  - Emails
  - Video visits
- Patient is managed with bicarbonate supplement, potassium binders, low protein diet, and laxatives.
- eGFR declined to 5 ml/min.
- Finally agreed to start PD.

When Is the Ideal Timing for Dialysis Initiation?

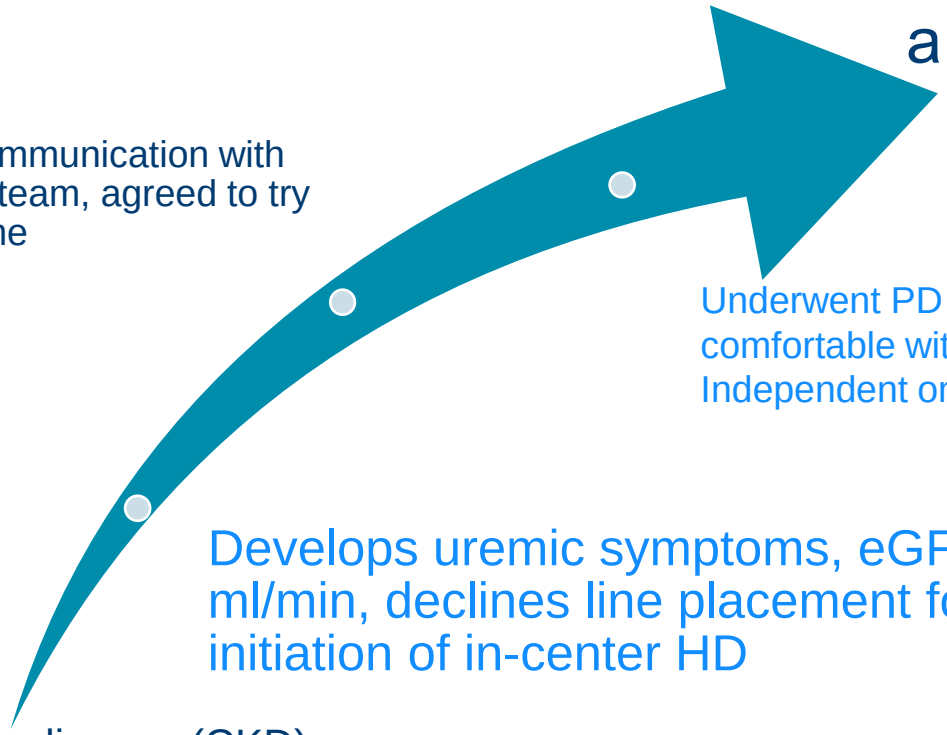
- IDEAL study: 10 ml/min vs. 15 ml/min
- Various registry:
  - 5 ml/min per 1.73 m2 in Taiwan
  - 8.5 ml/min in the United Kingdom
  - 7.3 ml/min in Australia
  - 6.4 ml/min in New Zealand
  - 9–10 ml/min in Canada and France
  - 11 ml/min in the US

Dialysis initiation, modality choice, access, and prescription: conclusions from a Kidney Disease: Improving Global Outcomes (KDIGO) Controversies Conference, Kidney International (2019); https://doi.org/10.1016/j.kint.2019.01.017

The Four Habits of Communication

- Invest in the beginning.
- Elicit the patient's perspective.
- Demonstrate empathy.
- Invest in the end.

Every Patient Tells A Story ...



60 y.o. advanced chronic kidney disease (CKD) patient declined ICHD due to concern of COVID-19 and congregated environment

Develops uremic symptoms, eGFR of 6 ml/min, declines line placement for initiation of in-center HD

After intensive communication with multi-disciplinary team, agreed to try PD to stay at home

Underwent PD training, comfortable with therapy, Independent on PD

Lesson: ICHD with central venous catheter (CVC) is not a “default” option

eGFR-estimated glomerular filtration rate

Case #3: “Parachute” Patient

- 30 y.o. male with CKD stage 3, saw a nephrologist 2 years ago.
- Did not follow up.
- Presented to the emergency room with creatinine of 15 mg/dl, hyperkalemia, acidosis, nausea, vomiting, and severe anemia.
- Renal ultrasound showed bilateral small echogenic kidneys.

Case #3: “Parachute” Patient

- What are you going to do?
  A. Start HD with a dialysis catheter.
  B. Start HD with a dialysis catheter.
  C. Start HD with a dialysis catheter.
  D. Urgent PD start.

Urgent-Start Peritoneal Dialysis: A Chance for a New Beginning

Perspective from the American Journal of Kidney Disease

Urgent-Start Peritoneal Dialysis: A Chance for a New Beginning

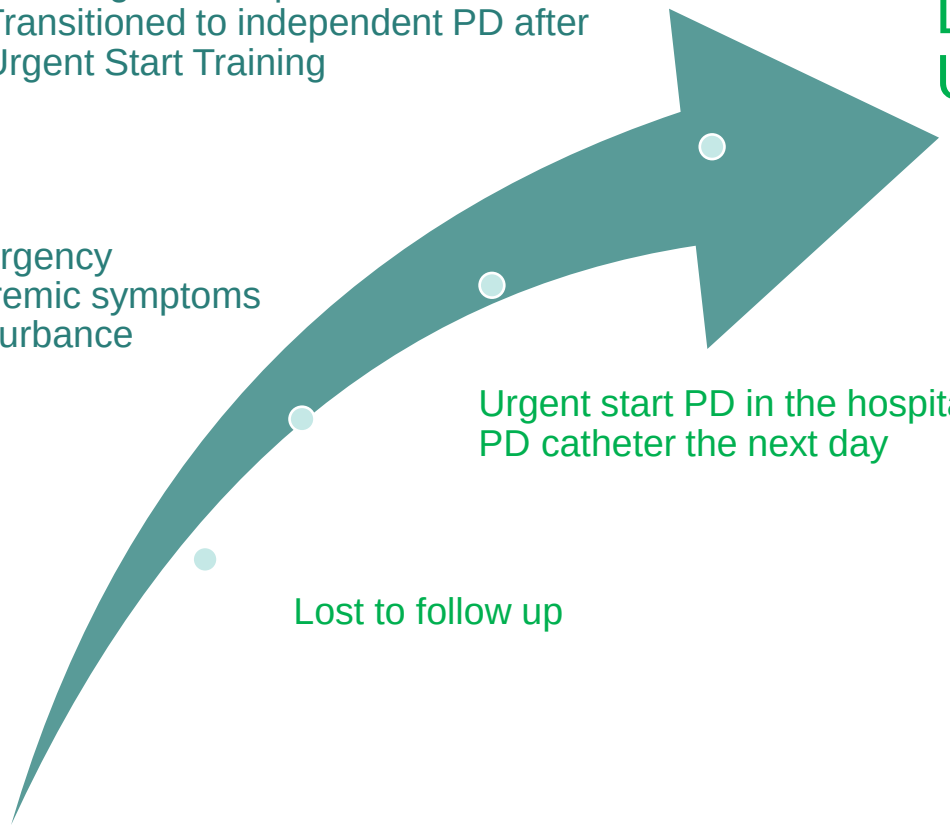
Rohini Arramreddy, Sijie Zheng, Anjali B. Saxena, Scott E. Liebman, Leslie Wong

Abstract

Peritoneal dialysis (PD) remains greatly underutilized in the United States despite the widespread preference of home modalities among nephrologists and patients. A hemodialysis-centric model of end-stage renal disease care has perpetuated for decades due to a complex set of factors, including late end-stage renal disease referrals and patients who present to the hospital requiring urgent renal replacement therapy. In such situations, PD rarely is a consideration and patients are dialyzed through a central venous catheter, a practice associated with high infection and mortality rates. Recently, the term urgent-start PD has gained momentum across the nephrology community and has begun to change this status quo. It allows for expedited placement of a PD catheter and initiation of PD therapy within days. Several published case reports, abstracts, and poster presentations at national meetings have documented the initial success of urgent-start PD programs. From a wide experiential base, we discuss the multifaceted issues related to urgent-start PD implementation, methods to overcome barriers to therapy, and the potential impact of this technique to change the existing dialysis paradigm.

Arramreddy R, Zheng S, Saxena AB, Liebman S, Wong L. Urgent-Start Peritoneal Dialysis: A Chance for a New Beginning. American Journal of Kidney Disease. November 18, 2013. Accessed on April 19, 2021. Available at https://www.ajkd.org/article/S0272-6386(13)01308-5/fulltext.

Every Patient Tells A Story …



Lesson: ICHD with CVC is not a “default” option; Develop comprehensive Urgent PD Program

Discharged to outpatient PD clinic. Transitioned to independent PD after Urgent Start Training

Showed up in Emergency Department with uremic symptoms and electrolyte disturbance

Urgent start PD in the hospital with IR placement of PD catheter the next day

Lost to follow up

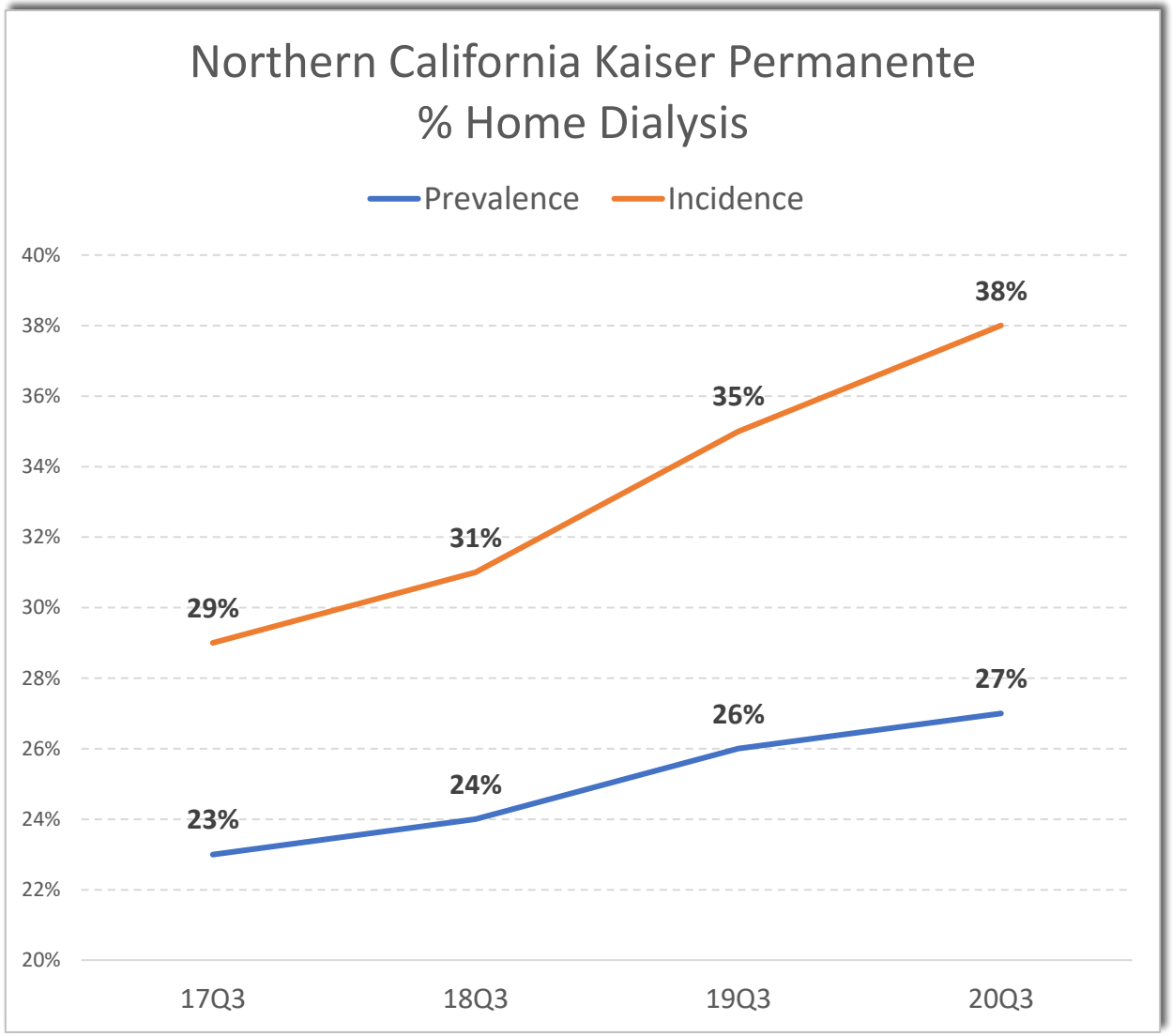
30 y.o. patient with progressive CKD

Northern California KP Home Dialysis Program

HHD **incidence** rose to an all-time high of 38% in Q3 2020, from 29% in Q3 2017, reflecting the multi-year strategic focus on the HHD program at Northern California KP and was not affected by COVID-19 due to rapid development of telemedicine support for patients

HHD **prevalence** also rose to 27% in Q3 2020 from 23% in Q3 2017, reflecting successful retention strategies:

- Quality programs to reduce peritonitis rate
- Monthly HHD work group meetings to share best practices and standardize care across medical centers
- Home Dialysis Champions for each medical center
- Continuous education programs
- Dedicated Social Worker and Case Manager (RN) support for patient and family needs



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Telehealth in Home Dialysis

Patient's perspective:

- Patient-centered care
- Flexibility in scheduling, missing less work time
- Decreasing the burden of time spent—traffic/ parking/transport
- Decreased exposure to public transportation/congregated facilities
- Improved quality of life
- Facilitates evaluation in urgent situations/inclement weather
- Supports patients living in remote areas
- Financial savings

Challenges:

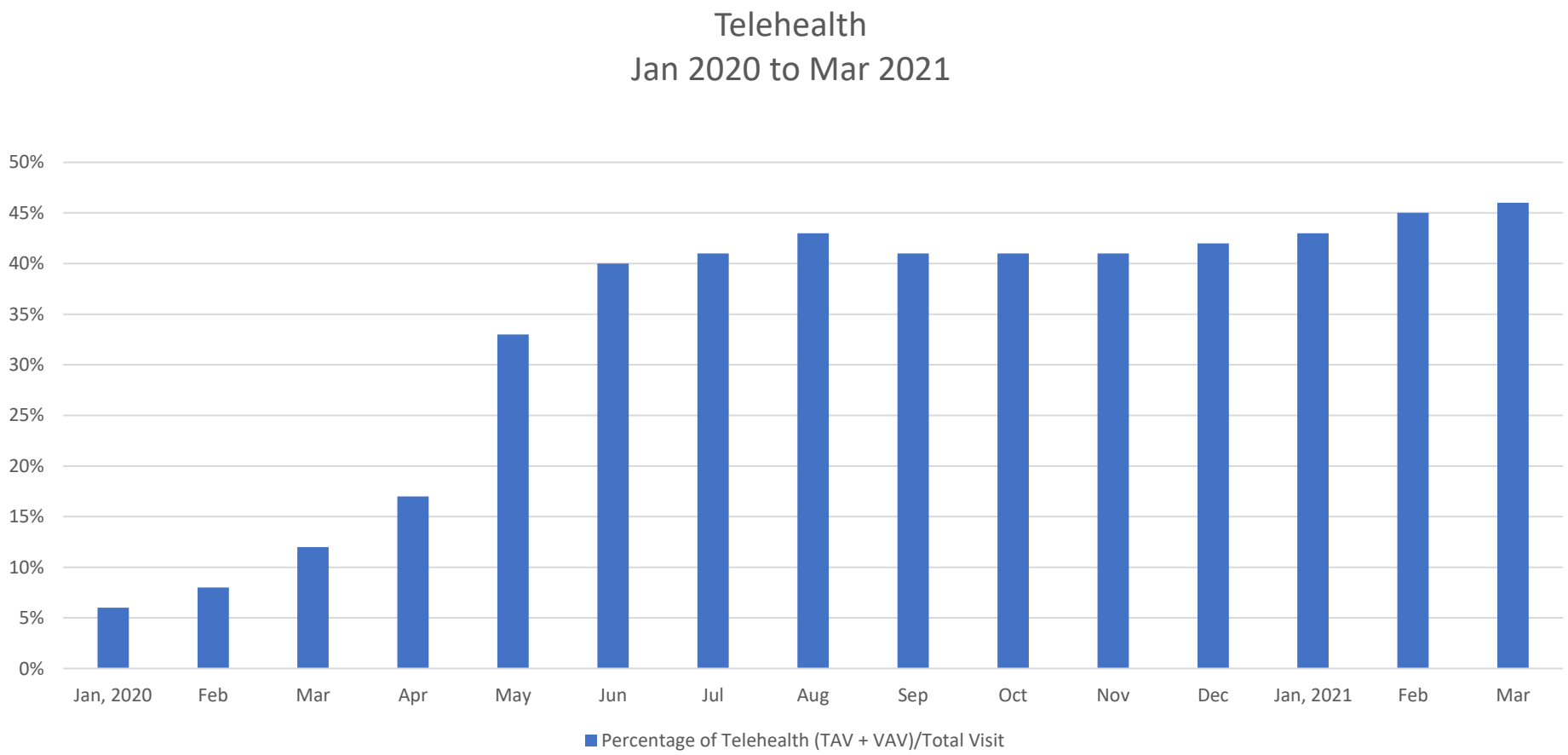
- Availability and compatibility of devices
- High-speed internet availability
- Physical examination limitations
- Video-/audio-connection issues
- Health technology literacy
- Language and cultural barriers

Additional Benefits:

- Complements in-person visits
- Patient-care oversight with remote monitoring
- Family members/care partners can participate
- Decreases infection exposure and transmission
- IDT counseling and participation

Telemedicine

Utilization of video and phone appointments during the COVID-19 pandemic



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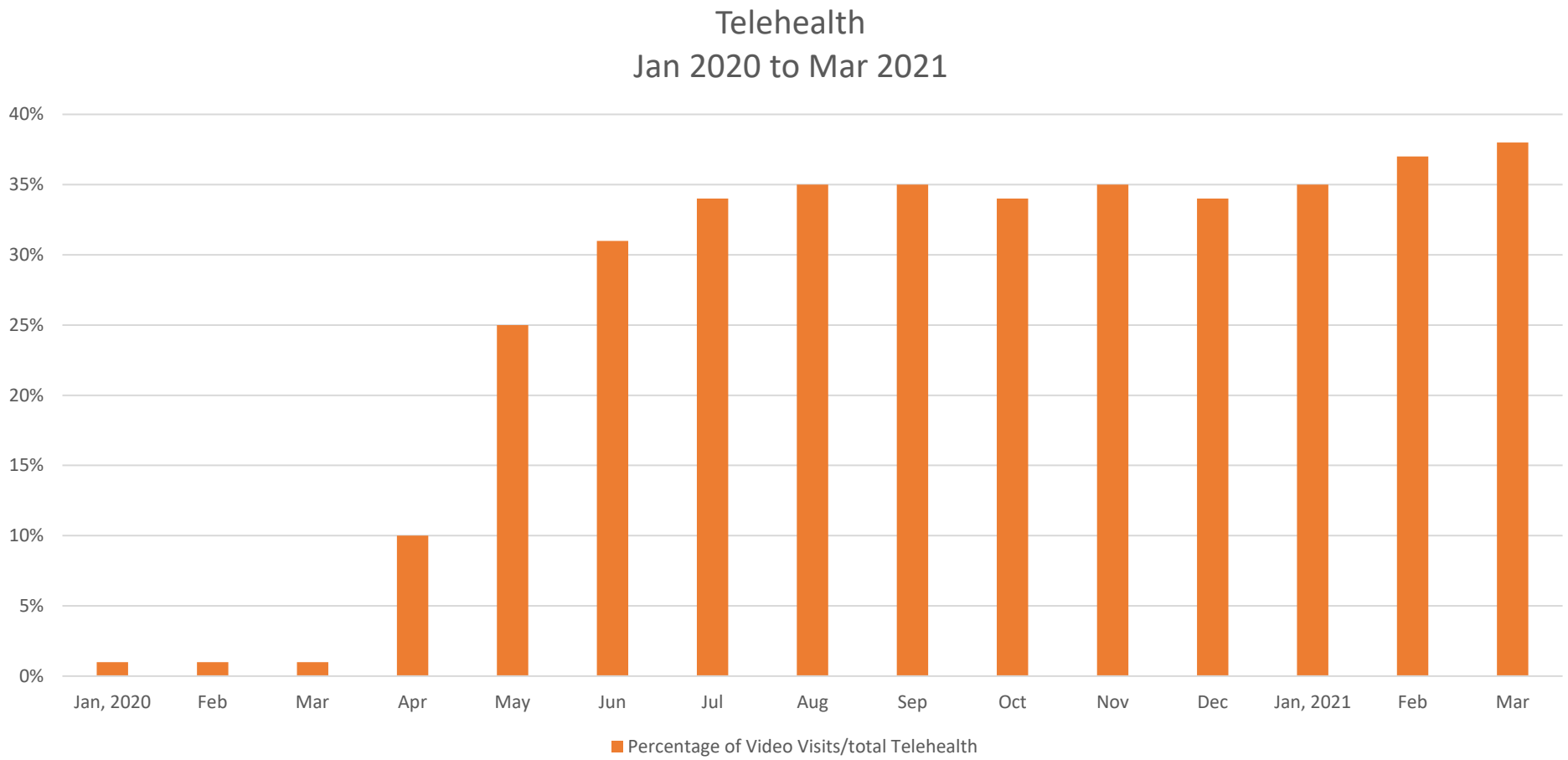
Telemedicine

Utilization of video appointments during the COVID-19 pandemic

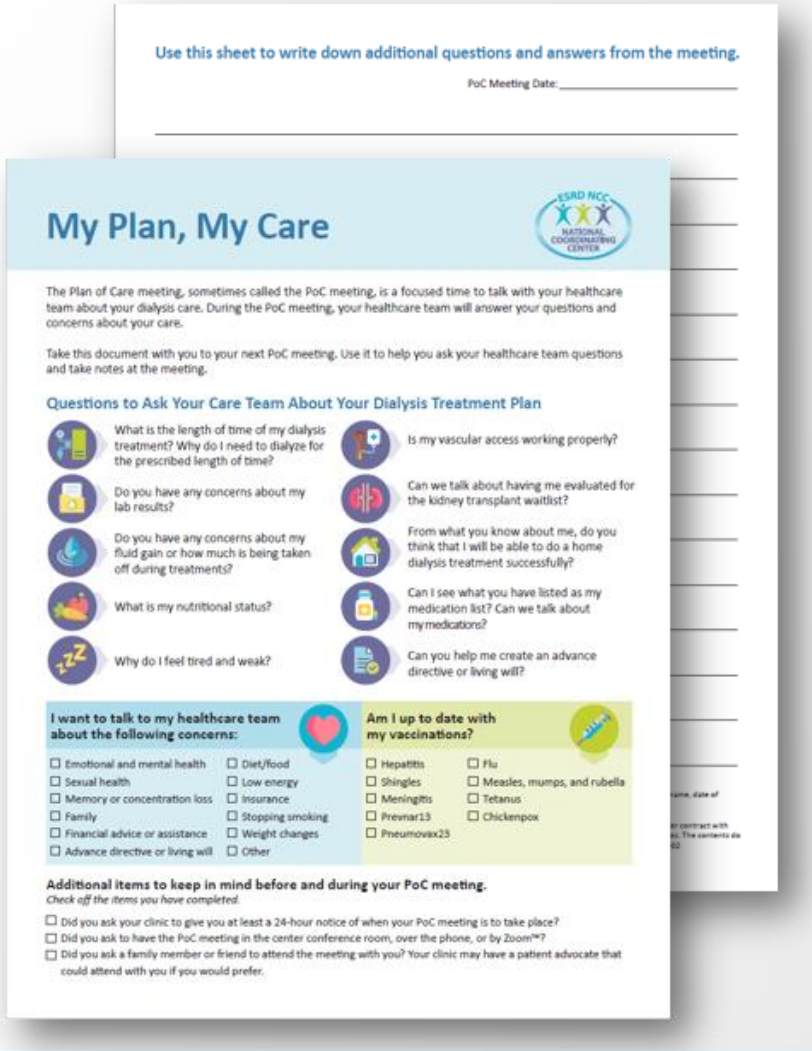


Questions

Let Us Hear From You

- Q&As from chat and Q&A panels

My Plan, My Care



Use this sheet to write down additional questions and answers from the meeting.

PoC Meeting Date: _____

My Plan, My Care

The Plan of Care meeting, sometimes called the PoC meeting, is a focused time to talk with your healthcare team about your dialysis care. During the PoC meeting, your healthcare team will answer your questions and concerns about your care.

Take this document with you to your next PoC meeting. Use it to help you ask your healthcare team questions and take notes at the meeting.

Questions to Ask Your Care Team About Your Dialysis Treatment Plan

- What is the length of time of my dialysis treatment? Why do I need to dialyze for the prescribed length of time?
- Do you have any concerns about my lab results?
- Do you have any concerns about my fluid gain or how much is being taken off during treatments?
- What is my nutritional status?
- Why do I feel tired and weak?
- Is my vascular access working properly?
- Can we talk about having me evaluated for the kidney transplant waitlist?
- From what you know about me, do you think that I will be able to do a home dialysis treatment successfully?
- Can I see what you have listed as my medication list? Can we talk about my medications?
- Can you help me create an advance directive or living will?

I want to talk to my healthcare team about the following concerns:

- ☐ Emotional and mental health
- ☐ Sexual health
- ☐ Memory or concentration loss
- ☐ Family
- ☐ Financial advice or assistance
- ☐ Advance directive or living will
- ☐ Diet/food
- ☐ Low energy
- ☐ Insurance
- ☐ Stopping smoking
- ☐ Weight changes
- ☐ Other

Am I up to date with my vaccinations?

- ☐ Hepatitis
- ☐ Shingles
- ☐ Meningitis
- ☐ Prevnar13
- ☐ Pneumovax23
- ☐ Flu
- ☐ Measles, mumps, and rubella
- ☐ Tetanus
- ☐ Chickenpox

Additional items to keep in mind before and during your PoC meeting.

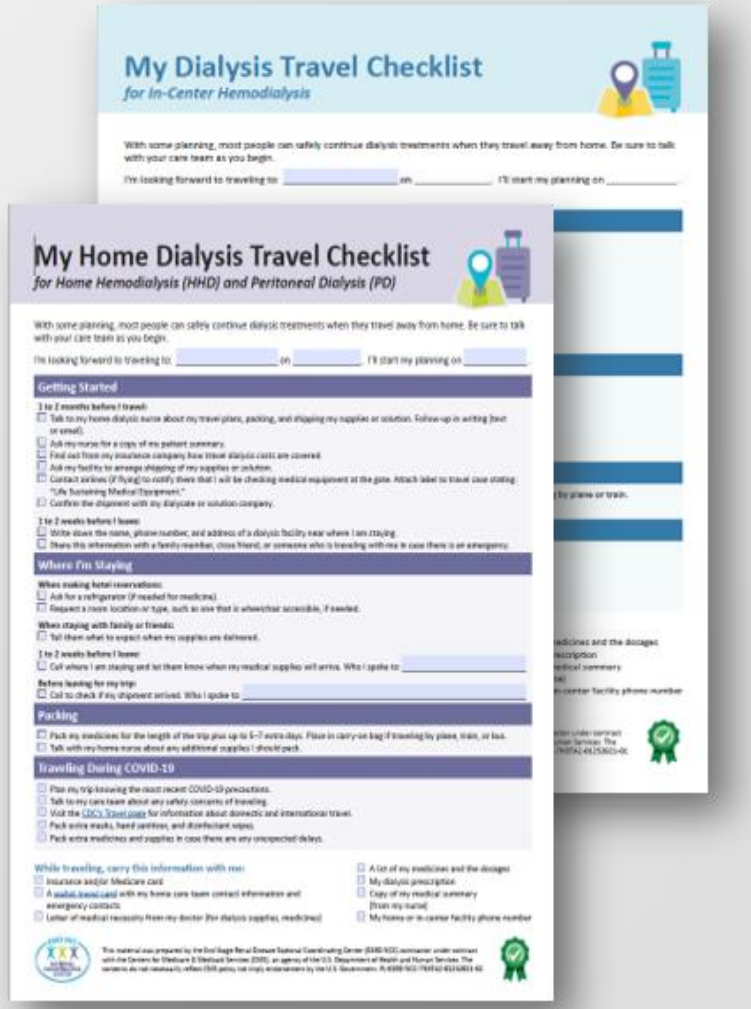
Check off the items you have completed.

- ☐ Did you ask your clinic to give you at least a 24-hour notice of when your PoC meeting is to take place?
- ☐ Did you ask to have the PoC meeting in the center conference room, over the phone, or by Zoom™?
- ☐ Did you ask a family member or friend to attend the meeting with you? Your clinic may have a patient advocate that could attend with you if you would prefer.

- This tool helps patients partner with their care team during their Plan of Care meeting.
- Offers a list of topics to discuss, including questions to ask about:
  - Dialysis health.
  - Emotional health.
  - Vaccination.
- Visit www.esrdncc.org/patients.
  - Select “For New Dialysis Patients.”
  - Look under the Being Involved in Your Care category.

In-center Hemodialysis and Home Dialysis Travel Resources

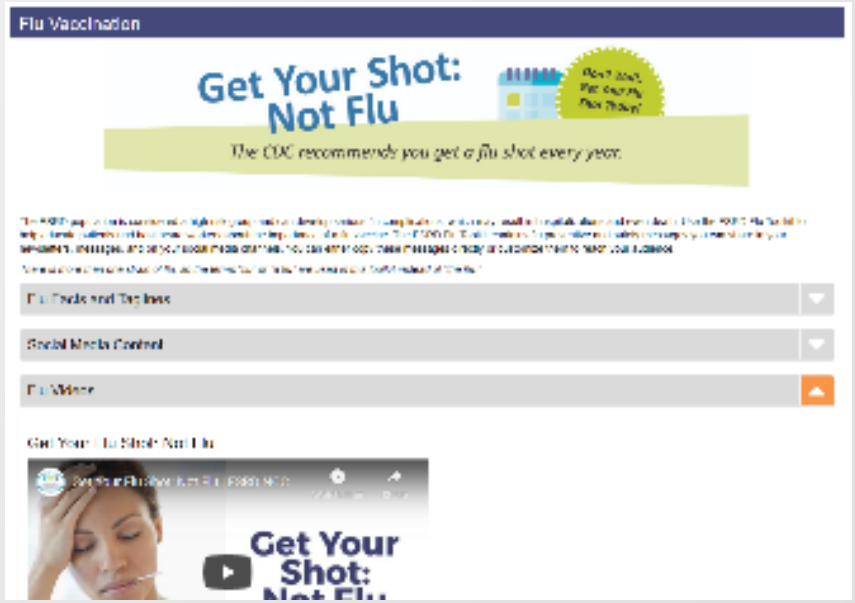
- Prepare for your next trip with one of these tools, when you feel comfortable traveling.
- Learn:
  - What to pack.
  - How to plan.
  - Discussions to have with your care team.
- Read about travel tips for ICHD and home hemodialysis users.
- Visit www.esrdncc.org/patients.
  - Select “For New Dialysis Patients.”
  - Look under the Traveling on Dialysis category.



Flu Vaccination Toolkit

Influenza toolkit for providers featuring:

- Flu facts and taglines
- Social media content
- Flu videos
- Print-ready materials
- On-demand training and educational events



Visit https://esrdncc.org/flu today!

The Kidney Hub

- The Kidney Hub—Mobile-friendly web tool created by patients, for patients.
- Links to new videos and helpful resources added.
- Visit www.TheKidneyHub.org today!

***Home Dialysis**: Choosing Home Dialysis*

***COVID-19:** Your Guide to Using Telemedicine*

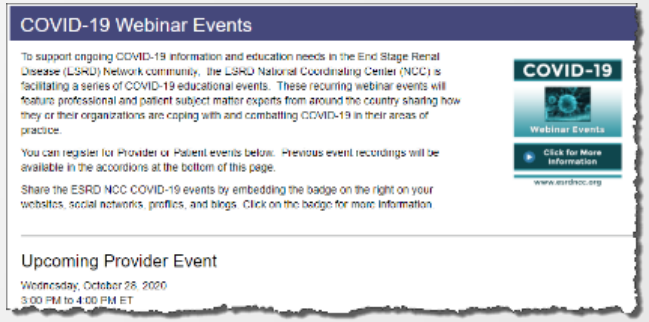
***Transplant**: Turning Negatives Into Positives*

Diet and Nutrition Resources Added!

Our Next COVID-19 Webinar Events

Save the date for our upcoming events:

- Provider-focused event: May 5, 2021, 3 p.m. ET
- Patient-focused event: April 28, 2021, 4 p.m. ET



Visit kidneyCOVIDinfocenter.com to register.
Keep an eye out for registration to these events soon.

Thank You!

NCCinfo@hsag.com
844.472.4250
813.865.3545
www.esrdncc.org

Additional COVID-19 resources for patients and providers:

https://www.kcercoalition.com/en/covid-19/

www.kidneyCOVIDinfocenter.com

This material was prepared the End Stage Renal Disease National Coordinating Center (ESRD NCC) contractor, under contract with the Centers for Medicare & Medicaid Services (CMS), an agency of the U.S. Department of Health and Human Services. The contents presented do not necessarily reflect CMS policy nor imply endorsement by the U.S. Government. Publication Number FL-ESRD NCC-7N5TCO-04162021-01