COVID-19

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

August 19, 2020
Agenda

• What is this call about?
• Today’s speaker:
  ▪ Ashutosh Shukla, MD
    Associate Professor, Director of Advanced CKD Program,
    Director of Home Dialysis Program, University of Florida
• 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 weekly calls on varying topics.
Home Dialysis in COVID-19 Pandemic
‘A Bittersweet Combo’
Outline …

• Advantages of Home Dialysis in COVID-19 Pandemic
  – A majority of discussion will focus on PD, with few areas for difference for HHD

• Concerns and Cautions for Home Dialysis

• Practice of Home Dialysis in COVID-19 pandemic

• Departing words…

HHD = Home hemodialysis; PD = peritoneal dialysis
Epidemiology of COVID-19 in ESRD

- ESRD is a high-risk population for COVID-19 related complications
  - Multiple comorbidities
  - Immunosuppression
  - Frequent need for medical care…
Epidemiology of COVID-19 in ESRD:

No well-published studies; Most data available from cohorts

• Incidence rate: reported between 2.5%–15–20%
• Wide range of symptoms
• High incidence of milder disease/asymptomatic carrier
• Data on clearance is not encouraging
  – Evidence for longer persistence of virus
• High mortality, about 30%
  – In many cases, mortality is preceded by rapid deterioration
• Overall lower reports on home dialysis

Xiong et al. JASN 2020; Alberici et al, Goicoechea et al. & Ikizler, KI 2020
Advantages of Home Dialysis in COVID-19 Pandemic

- Avoids the recurrent visits to healthcare facility
- Limited exposure to other vulnerable groups
- Limited exposure to the healthcare workers
- Independence of lifestyle
Goals/Concerns of Home Dialysis in COVID-19 Pandemic

Goals of Care

- Safety of the patients, staff, and facility
- Establish efficient triaging and reporting roles
- Ensure that the facility continues to provide the highest standards of care

Pragmatic concerns

- Provision of the care
  - Initiation of home dialysis
  - Routine follow-up care of home dialysis
  - Special procedures and labs
- Maintaining the supplies
- Social and economic burdens
- Staffing issues
Considerations for New Patient Initiation ...

• Selection: Patient Education

• Pre-initiation procedures: Catheter Insertion or Fistula creation

• Training: PD or HHD training
Considerations for New Patient Initiation …

Patient Education

- When provided with a comprehensive education, it appears that about 50% of patients prefer some form of home dialysis

### Comprehensive Patient Education (CPE)

<table>
<thead>
<tr>
<th>Spain</th>
<th>Asia (Taiwan)</th>
<th>Netherlands</th>
<th>Austria</th>
<th>USA</th>
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- **Home Dialysis (HoD)**
- **In-center HD (IHD)**

### Our Data

- **Home Dialysis (HoD)**
- **In-Center hemodialysis (IHD)**

- **HCF1**
- **HCF2**
- **HCF2I**
- **Tele**

- **N=322**
- **N=163**
- **N=235**
- **N=227**
- **N>3,000**

- When provided with a comprehensive education, it appears that about 50% of patients prefer some form of home dialysis.
Considerations for New Patient Initiation ...

Patient Education

• Kidney Disease Education (KDE) utilization is low in CKD
  – Nearly half of all incident ESRD do not have renal care
  – Few practices provide KDE to all patients
  – KDE is commonly provided to patients with higher likelihood of starting home dialysis

• One of the earliest things that got sacrificed in the Pandemic!
Considerations for New Patient Initiation...

Patient Education

• Unfortunately, home dialysis without education is unlikely …
  – Force of practice keeps churning out more IHD
• Keeping education alive in COVID-19 pandemic is important …
• Telemedicine provides an optimal method for KDE in the current situations

IHD = in-home dialysis
Use of telemedicine in comprehensive pre-ESRD education

Confidence in dialysis decision making

N= 126, p > 0.05
Considerations for New Patient Initiation ...

Patient Education

- **Our experience during pandemic:**
  - All activities ceased on March 17, 2020
  - CPE program restarted April 23, 2020
  - Total numbers remain low till date...
    - 21% no show
    - 50% (63%) PD

Our Data

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<th>AR Choice</th>
<th>FL Choice</th>
<th>FL Initiation</th>
<th>FL Prevalence</th>
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- 76% HoD
- 77% IHD
- 62% AR Choice
- 53% FL Choice
- 24% FL Initiation
- 38% FL Prevalence
- 47% Uncertain
- 21% No Show
- 50% PD
- 22% IHD
- 7% Uncertain
Considerations for New Patient Initiation …

• Selection: Patient Education

• Pre-initiation procedures: Catheter Insertion or Fistula creation

• Training: PD or HHD training
Pre-initiation Procedures: Catheter Insertion or Fistula Creation

• Most medical centers stopped non-urgent procedures in March
• By the end of March, CMS issued all dialysis related procedures as the essential procedures
  – Included specific instruction about the PD catheter insertion
• Our Center:
  – Close collaborations with PD catheter and vascular surgeon
  – Patients are referred as usual.
  – Dialysis accesses is an essential procedure/surgery.
  – No delay related to COVID-19
Considerations for New Patient Initiation …

• Selection: Patient Education

• Pre-initiation procedures: Catheter Insertion or Fistula creation

• Training: PD or HHD training
New Patient Initiation ...
Training: PD or HHD training

• Though, PD training is easier than HHD
  – We have no particular policies against training HHD

• Training principles:
  – Dialysis being essential services, trainings are not postponed
  – CAPD is usually shorter training
  – APD training should be flexible and hybrid
  – Use of telemedicine approaches for the educational component
  – Use of in-person clinic visits for the practical hands-on training

CAPD = continuous ambulatory peritoneal dialysis; APD = continuous ambulatory peritoneal dialysis
New Patient Initiation ...

Training: PD or HHD training

• **Training practice:**
  – All involved wear full PPE throughout the entire session in the facility
  – Treatment room terminal cleaned at the end of each day.
  – Cleaning crew should be educated for COVID-19 cleaning techniques, with extra attention to high touch areas
  – Additional training for the use of Video-assisted clinic visits (Zoom™)

• **Home Visit:**
  – Telemedicine home visit, approved by CMS
  – Unless conducted prior to training initiation, patient can be instructed on last day of training

PPE = personal protective equipment
Goals/Concerns of Home Dialysis in COVID-19 Pandemic

Goals of Care

• Safety of the patients, staff, and facility
• Establish efficient triaging and reporting roles
• Ensure that the facility continues to provide the highest standards of care

Pragmatic concerns

• Provision of the care
  – Initiation of home dialysis
  – Routine follow-up care of home dialysis
  – Special procedures and labs
• Maintaining the supplies
• Social and economic burdens
• Staffing issues
Routine Follow-Up Care of Home Dialysis:

- Telemedicine vs. In-person visits
- Use/Reuse of PPE
Telemedicine vs. In-person Visits

• Many, if not most, patients on home dialysis can be efficiently managed with telemedicine
  – We routinely add the training of telemedicine visit on patient equipment in the initial trainings …

• The intensity of follow up and need for in-person visit can be individualized

• CMS has facilitated expanded use of telemedicine
  – Telemedicine and Telehealth Toolkit for ESRD providers

• Use of remote monitoring can enhance the timely recognition of a new problem …
• Monthly visit:
  – MCP modifications allow for 2 out of 3 visits to be done by telemedicine ...
  – Waiver for the part B copayments ...
  – Audio only telephone visits approved for the same rate as audio-visual (AV) visit,
    • We document that we can’t establish the AV connection ...
  – HIPAA waiver for popular, i.e., ‘Facetime™
    • Doximity dialer allows for a HIPAA compliant visit
    • Follow your dialysis/healthcare facility guidelines

MCP = Monthly capitation payment; HIPAA = Health Insurance Portability and Accountability Act
Payment Considerations ... Telehealth

- Telehealth based training ...
  - Especially not labor oriented training ...
- Telehealth based home visit ...
- Monthly education ...
- Infection protocol reviews
- Supplies and technology-related issues
In-person Visit to the Facility

- Preferably at least once every 3 months
- Patients who have difficulty connecting on video calls
- Patients with infectious complications
- Poor functioning of the access
- Patients with fluid or cardiovascular uncertainties
- Significant change from baseline
  - Large changes in weight, laboratories etc.
In-person Visit to the Facility

- All triage procedures must be HIPAA-compliant
- Multi-step patient screening
  - Prior to arrival:
    - Patients check temperature and put on a mask regardless of symptoms before leaving home
    - Notify staff before arriving if febrile or symptomatic
  - Upon arrival:
    - Staff member near all entrances,
    - Waiting can be outdoors for all or symptomatic patients, if weather permits (at our clinic, the lobby waiting has been eliminated)
    - All patients/staff to wear facial coverings
    - Temperature measurements, if significant community transmission
    - Avoid or minimize caregivers, can wait outside in the vehicle if appropriate
    - Separate patient units by at least 6 feet in the waiting areas
    - Avoid mixing symptomatic and asymptomatic patients
In-person Visit to the Facility

• Screening staff
  – Remain 6 feet from the patient until cleared
  – Wear face mask unless separated by a shield/glass barrier
  – Keep interactions brief
  – Use N95 or higher-level respirator, gloves, and, eye protection, if distance cannot be maintained
  – Should wear N95 respirator with shield while training …

• Screening protocol: patients, caregiver or staff …
  – CDC Questionnaire
  – Institutional Questionnaire
  – UF Health Questionnaire (Local surveys may be preferable)
  – Positive screening: requires negative test or 10 days without worsening to be admitted into the facility
In-person Visit to the Facility: Our Protocol

• Stand-alone Home-Only Unit
  – All patients call upon arrival
  – Wait in the vehicle; No lobby waiting
    • Shared Units can use similar process for home patients to avoid mixing
  – Met by a staff at the entrance: All interacting members masked
  – Screen: Survey, temperature, and O² saturations (probe needs cleaning)
  – Post-screening direct to patient room
    • No huddling of the patients or providers

• Monthly nursing visits: Usually kept brief
  – Mainly used for Blood draws, IV meds
  – Education preferred over telehealth modality

• Positive Screen:
  – Inform provider
  – Tests through primary care or healthcare facility

O² = Oxygen; IV = intravenous
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- **Social and economic burdens**
- **Staffing issues**
In-person Visit to the Facility: Special Procedures

• All care interactions outside clinic visit, require full PPE
• Special considerations can be developed for infrequently scheduled procedures:
  – PET test, Transfer set change
• QAPI/Care Plans—through telehealth to limit unnecessary staff contact
• Medicine pick ups:
  – Passive: no need for signature, 2 staff cosign …
Additional Nurse Manager Responsibilities:

- Weekly IC audits
- Stagger meal/break times to have no more than 1 staff in break room at a time.
- Utilize other rooms (conference rooms, empty offices, etc. or staff automobiles for breaks)
- Facilities are monitoring the CDC website for information and resources per CMS guidelines
- PUI (persons under investigation) and positive patients tracking
- Participate in public health and corporate webinars

IC = intensive care; CDC = The Centers for Disease Control and Prevention
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Routine Follow-Up Care of Home Dialysis: PPE Supplies

• Weekly inventory counts of PPE for tighter control/track usage
• Order alternate products if available
• Consider reuse of the face mask and N95 respirator
  – More than 48 hours of period in-between reuse
  – Special techniques for cleaning and reusing across personnel
Routine Follow-Up Care of Home Dialysis: Dialysis Supplies

• Lock-downs and stay-in orders can disrupt supply chains.
  – Many times it is similar to hurricane season but, here problems in remote areas can lead to loss of supply
• Restrictions in place for supply quantities
• Vendor approval to add 1 bottle of Alcavis and 1 box of masks to each patient’s monthly order (Baxter, FMC)
• Transfer of supplies between sister clinics
• We advise at least 4 weeks supply on hand
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Special Situations 1 ... Loneliness and Lack of Social Support Structure

• 36 yr. old woman with diabetes, depression, and ESRD on PD for 2 years, good residual renal function, prior history of non-adherence …
• Did not want to come to clinic in March, not an unusual thing …
• Intermittent phone calls with the nurse
• April 2020 nurse visit laboratory showed, increase in creatinine (12 → 19), reduced bicarb (23 → 12), feeling down,
  – Lost the job in hospitality, outpatient psychiatry closed due to COVID, children could not come back home, and eventually she stopped taking meds
  – Admitted to hospital with suicidal ideation, re-initiated on dialysis
  – Discharged 7 days later with full recovery with new psychiatry follow-up
  – Doing well after 4 months …
Special Situations 1 ... Loneliness and Lack of Social Support Structure

- Loss of income or job
- Decreased assessment of self-worth
- Isolation and depression
- Lack of medical support
- Lack of medications or copay amount
Special Situations 2 ... Staff exposures

- Employees need screening every day prior to work
- Positive screens require testing
- Positive test require extended absence ...
- This can disrupt a planned work of the home dialysis unit
Special Situations 2 ... Staff Exposures

ALGORITHM A
COVID EXPOSURE RISK ASSESSMENT AND TESTING INDICATIONS

HCW EXPOSED TO CONFIRMED COVID-19 PATIENT OR HCW

CLOSE CONTACT, NO AGP (aerosol-generating procedure): Within 6 ft for at least 15 minutes cumulative, OR Direct contact with infectious secretions or excretions of the person with confirmed COVID-19

PRESENT DURING AGP (aerosol-generating procedure) or event (e.g., ventilator disconnection, etc.) and not wearing: facemask, CAPR or N95, eye protection, gown and gloves

LOW RISK

Positive person wearing face mask¹/ face covering²?

YES

NO

HCW wearing a face mask or N95?

LOW RISK

NO

YES

ELEVATED RISK

NOTE: If exposed to a COVID-19 PUI, there are no work restrictions while awaiting COVID test results unless symptomatic.

NO CLOSE CONTACT: Brief interaction only, does not meet criteria for close contact (< 15 minutes)

LOW RISK

Continue working, self-monitor for symptoms, no COVID testing indicated. If symptoms begin, stop work immediately and call HCW hotline.

NO

HCW wearing eye protection³ and either a face mask¹ or N95?

YES

NO

Continue working, self-monitor for symptoms, no COVID testing indicated. If symptoms begin, stop work immediately and call HCW hotline.

0

1

2

3
Special Situations 2 … Staff Exposures

Health Care Worker Hotline:
352.265.5550
7 a.m. to 7 p.m., seven days a week

ELEVATED RISK

NO

Is the HCW symptomatic?

YES

HCW works & tests
day 5 post exposure

HCW does not work & tests immediately

NEGATIVE
HCW continues to work

Test on Day 9

NEGATIVE
HCW continues to work

POSITIVE
HCW cannot work and enters COVID Positive HCW RTW Algorithm B

Test on Day 9

NEGATIVE
HCW continues to work

POSITIVE
HCW cannot work and enters COVID Positive HCW RTW Algorithm B

NEGINATIVE
HCW continues to work

If symptoms occur at any point, remove from work and test ASAP. Do not return to work until test results are received and medical return-to-work evaluation has been completed.

Courtesy: Dr. Kartik Chherabuddi, MD
UF Health COVID-19 Response team
Special Situations 2 ... Staff Exposures
Special Situations 2 … Staff Exposures

ALGORITHM C
HCW EXPOSURE TO COVID POSITIVE HOUSEHOLD MEMBER OR INTIMATE PARTNER RETURN-TO-WORK (RTW)

- HCW does not work initially
- HCW is tested ASAP
  - **NEGATIVE**
    - HCW returns to work
  - **POSITIVE**
    - HCW cannot work; enters COVID Positive HCW RTW Algorithm B

  **Test again 7 days after initial test**

  - **NEGATIVE**
    - HCW continues to work
    - Test again 14 days after initial test
  - **POSITIVE**
    - HCW cannot work; enters COVID Positive HCW RTW Algorithm B

If symptoms occur at any point, remove from work and test ASAP. Do not return to work until test results are received and medical return-to-work evaluation has been completed.

*UF Health Shands Occupational Health: 352.594.4798 | UF employees: 352.294.5700*

Courtesy: Dr. Kartik Chherabuddi, MD
UF Health COVID-19 Response team
Special Situations 3 ...Technical Challenges

- About 10% of the patients are unable to participate through telemedicine for monthly MD appointments
  - Electronic literacy
  - Poor infrastructure
- Even more are unable to show the exit site or fluid status
- Appointments take longer for completion
  - we do a comprehensive appointment with the whole team together
- May require audio-only appointments
- Consider F2F appointments for those with challenging conditions
• Waivers in audit
  – Water & dialysate quality
  – Equipment maintenance & fire safety inspections
  – Emergency preparedness
  – Requirement for maintenance of CPR certification

• Waiver in documentation
  – Initial and follow-up comprehensive examination
  – Care plans allowed with telemedicine
Special Situations 4 ... Additional CMS Waivers

• Special permissions:
  – Expansion of the facility services into the NH, ALF or LTEC, requires dialysis staff to provide service though …
  – Machine portability, uncommon, likely in use of the same machine in more than one person within a habitation …
  – Accelerated payments
  – Delays in initial and follow up comprehensive examinations for the multidisciplinary team …
  – Across state boundaries and facility credentialing …

NH = Nursing home; ALF = Assisted living facility
LTEC = Long-term extended care
Special Considerations 5 ... How Applicable Are the IHD Guidelines for Home Dialysis?

• Is a negative test for SARS-CoV-2, the virus that causes COVID-19, required before a hospitalized PD patient can be discharged to receive care at an outpatient dialysis facility?
  – No, follow local or CDC guidelines for care within HC facilities

• Are there any special recommendations for the effluent disposal for PD?
  – No, conventional disposal standards with adequate precautions is recommended
  – Avoid splash contaminations …

• Disinfection of the machine
  – Most PD and HHD machines do not have internal circuits; hence, do not need special disinfection
  – Follow CDC recommendations for disinfection material
  – Special precautions may be needed if the machine is shared (uncommon)
Medical Director’s Responsibilities:

• Develop procedures for keeping patients healthy at home
  – Social distancing and PPE
    • Limit societal excursions, or do it at odd hours …
    • Interact with family by electronic means
  – Hand washing—even more important now …
  – Don’t allow visitors to stay over
    • Disinfect any time self or the family comes in contact with society …
  – Extra supplies may come in handy …

• Creating protocols for patients suspected to have COVID-19 so that they do not end up in the facility
  • Work with your medical center and primary care providers
Medical Director’s Responsibilities:

• Screening procedures:
  – HIPAA-compliant in terms of location and interactions …
  – Decide on the severity of the engagement needed, questionnaires, temperature, pulse oximetry …
  – Discuss with the Nurse manager for patient triaging …
    • Stand-alone vs. attached home unit
• Post-screening clinic visits
  – Policies on the caregivers and visitors
  – Need for in-clinic procedures … nursing education, IV iron, transfer set exchange, blood work
  – Patient transition procedures …
• Home management
  – Suspected peritonitis and exit site infection (ESI) management
  – Suspected COVID-19 management
  – Follow up on chronic conditions
• Policies on the patients refusing PPE or telemedicine …
Conclusion …

- There are obvious advantages of the home modalities of dialysis during this Pandemic …
- But, similar to any natural calamity, special precautions are needed to ensure that the quality of care does not suffer …
- Most “Important Take-Aways”
  - Invest in educating patients on how to use telehealth
  - Ensure the supply chains are stable
  - Encourage the patients for additional telephone-only visits
  - Evaluate and attend to the social and psychological needs
  - Support unit staffs, especially nurses—they can be truly stressed ensuring that everything works well …
- When in doubt, reach out to corporate or Network representatives …
Acknowledgements …

Michelle Thomas, RN  
Nurse Manager,  
UF-DCI Home dialysis Program, Gainesville, FL

Teri Martinez, PA  
University of Florida,  
UF-DCI Home dialysis Program, Gainesville, FL

And the entire team of Home Dialysis Program
Additional Resources:

- **ASN resources:** https://www.asn-online.org/covid-19/CMS
- **CDC Dialysis Resources:** https://www.cdc.gov/coronavirus/2019-ncov/hcp/dialysis/home-dialysis.html
- **PD Catheter Essential Service:** https://www.kidneynews.org/policy-advocacy/leading-edge/critical-clarification-from-cms-pd-catheter-and-vascular-access-placement-is-essential
Let Us Hear From You

Q&As from chat and Q&A panels
Introducing TheKidneyHub.org.

- Secure, mobile-friendly web tool for patients and professionals.
- Developed by the ESRD NCC with assistance from patient subject matter experts.
- Links to important resources, such as:
  - COVID-19, infection prevention, transplant, home dialysis, and new ESRD patient education.
  - New features include access to the Patient Grant Library, an informative Understanding High-Kidney Donor Profile Index (KDPI) and Increased Risk Kidneys video, and more.
- Visit today and bookmark to your device’s home screen.
Our Next COVID-19 Webinar Events

• Save the dates for our next events.
  ▪ Patient-focused event:
    August 26, 2020, at 4 p.m. ET
  ▪ Provider-focused event:
    September 2, 2020, at 3 p.m. ET

• Visit www.kidneyCOVIDinfocenter.com for information and to register.
Thank You!

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

Additional COVID-19 resources for patients and providers:


www.kidneyCOVIDinfocenter.com