COVID-19

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

October 28, 2020

COVID-19 = Coronavirus Disease 2019
Agenda

• What is this call about?
• Today’s speaker:
  ▪ Faith Lynch, MSN, RN
    ANNA Acute Care Specialty Practice Network Leader
  ▪ Topic: Challenges in an Ever-Changing Acute Dialysis Setting During a Pandemic
• 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.
Challenges in an Ever-Changing Acute Dialysis Setting During a Pandemic

Faith Lynch, MSN, RN
ANNA Acute Care Specialty Practice Network Leader
Disclosure

I have the following relevant financial relationships to disclose:

Nurse Consultant for: Pentec Health & Outset Medical
Employee: New York University Langone Health
Objectives

• Offer a nurse’s perspective on what acute dialysis units have gone through during COVID-19.

• Discuss various CDC guidelines that have been implemented for acute dialysis during COVID-19.

• Provide ideas and strategies to be prepared for future surges.
Overview of Risk Factors, Chronic Kidney Disease, and COVID-19
Factors That **Increase** Your Risk for CKD

- Diabetes
- High blood pressure
- Heart and blood vessel (cardiovascular) disease
- Smoking
- Obesity
- Being African American, Native American, or Asian American
- Family history of kidney disease
- Abnormal kidney structure
- Older age

CKD = chronic kidney disease
CDC High-Risk Medical Conditions for COVID-19

- Cancer
- CKD
- Chronic obstructive pulmonary disease (COPD)
- Heart conditions, such as heart failure, coronary artery disease, or cardiomyopathies
- Immunocompromised state (weakened immune system) from solid organ transplant
- Obesity (body mass index [BMI] of 30 kg/m2 or higher but < 40 kg/m2)
- Severe Obesity (BMI ≥ 40 kg/m2)
- Sickle cell disease
- Smoking
- Type 2 diabetes mellitus
What Age Population Is Affected the Most?

COVID-NET conducts population-based surveillance for laboratory-confirmed COVID-19-associated hospitalizations in children (less than 18 years of age) and adults.

(CDC, 2020)
Acute Dialysis During the Pandemic
Ready ... Set ... Go!

• March 5th, 2020—1st COVID-19 positive case on Long Island, NY

48 days

• April 21st, 2020—750th COVID-19 discharge
Acute Dialysis Unit Overview

Role: To deliver renal replacement therapy (RRT) to patients in need

Unit:
6 bed unit (no isolation room)
Dialyze patients in ICU and on floors (isolation)
Approx. 4,100 treatments per year
An Acute Dialysis Nurse Experience

Of the critically ill COVID-positive patients: 25–40% developed acute kidney injury (AKI).

• Symptoms
• RRT therapy—CRRT*, HD, acute PD
• Mortality rate: 60–70%
• How did these patients tolerate dialysis?

RRT = renal replacement therapy
*CRRT = continuous renal replacement therapy
HD = hemodialysis
PD = peritoneal dialysis
COVID-19 and AKI

• AKI was complex in patients with COVID-19.
  ▪ Tendency to form blood clots
  ▪ Formation of active mediators of inflammation
  ▪ Possible invasion of kidneys by coronavirus
What Changed With COVID-19 in the Acute Dialysis Setting?

- Volume of patients went up due to AKI.
- Bedsides ↑ to 95% (1:1 nurse/patient ratio).
- Dialysis nurses started getting sick.
- No guidelines
What Are the Concerns From a Dialysis Standpoint?

- Need for more equipment
- Allocation of dialysis supplies
- Staffing
- Exposure
- Personal protective equipment (PPE)
- Water hook-ups
- Volume of patients
Dialysis Machines

Equipment
- CRRT machines
- Multiple-modality machines

Cartridges—Supplies
- Borrowed from other hospitals
PPE Usage

- N95—1 per week
- Gowns—Re-use, if possible
- Shields—1 month
- Surgical masks—1 per week
Staff and COVID-19

- 2 nurses tested positive for COVID-19 by April 1 (11 FTEs total)
- 1 dialysis transporter
- 1 nurse exempt

FTE = full-time employee
How the Acute Dialysis Role Changed During the COVID-19 crisis?

• Dialysis nurses became a limited/valuable resource.

• Dialysis nurses became mentors for floor nurses in ICUs.

• Triaging dialytic needs in a high acuity, high volume setting
CDC Guidelines for Acute Dialysis and COVID-19

The following information is an excerpt from recommendations released by the CDC on July 7, 2020, entitled “Considerations for Providing Hemodialysis to Patients with Suspected or Confirmed COVID-19 in Acute Care Settings.”
Question: Where Should Intermittent Hemodialysis Be Performed in the Acute Dialysis Setting?

Answer:
1. Patient’s hospital room with the door closed.

2. Acute Dialysis unit isolation room.

3. Cohort patients on the last shift of the day.

(Centers for Disease Control, 2020)
**Question:** What Are the Recommendations for Dialysis Staff Caring for Patients With Suspected or Confirmed COVID-19?

**Answer:**

1. Use PPE recommended for the care of patients with suspected or confirmed COVID-19.

2. Dialysis staff should limit time in the room with the patient.

(Centers for Disease Control, 2020)
**Question:** What Are the Recommendations for Cleaning and Disinfecting the Hemodialysis Machine and Equipment After Use for Suspected or COVID-19-Positive Patients?

**Answer:**
Current standards for routine cleaning and disinfection of hemodialysis equipment are appropriate for COVID-19.  

(Centers for Disease Control, 2020)
The Aftermath of COVID-19 on Healthcare Workers
Stress on Frontline Workers

Acute Dialysis:
• High turnover
• Onslaught of COVID-19 patients
• Volume increase
• Increase in deaths
• Long hours
• Anxiety
• Exhaustion
Caregiver Going Home Checklist

- Acknowledge one thing that was difficult:
  - Let it go

- Consider three things that went well today:
  - Be proud of the care you gave

- Check on your colleagues before you leave
  - Are they OK?

- Are you OK?
  - Your leaders are here to listen and support you

- Now switch your attention to home
  - Rest and Recharge

Source: NYU Winthrop Hospital, used with permission
Resources for Nephrology Nurses
American Nephrology Nurses Association

Surge Support Tool

Source: American Nephrology Nurses Association (ANNA), used with permission
Coronavirus Disease (COVID-19): Information & Resources

Nephrology Nurses Needed for COVID-19 Hot Spots Across United States

The Nephrology Nursing COVID-19 Hot Spots Taskforce enables organizations to identify and share information about current needs for nephrology nurses. Volunteers are able to assist in the task by entering their identity and contact information, with openings.

Share Your COVID-19 Pandemic Experience

The Nephrology Nursing Journal (NNJ) wants to capture what nephrologists and other nephrology health-care professionals are experiencing during the COVID-19 pandemic.

Take Action

- American Nurses Association (ANA) Call to Action - Urges Congress to Increase PPE by Supporting the Medical Supply Chain Emergency Act (S. 2952/H.R. 6370)

Mental Health and Well-Being Resources

Below are resources to support the mental health and general wellness needs of nurses and other providers during the pandemic.

Resources for Nurses and Healthcare Providers

- Resources to Support the Health and Well-Being of Clinicians during the COVID-19 Outbreak (National Nurses United)
- Managing Healthcare Workers' Stress Associated with the COVID-19 Virus Outbreak (National Center for Stress and Health)
- Healthcare Personnel and First Responders: How to Cope with Stress and Build Resilience During the COVID-19 Pandemic (CDC)
- The Well-Being Initiative (American Nurses Foundation)
- Coronavirus and Mental Health: Taking Care of Ourselves During Infectious Disease Outbreaks (American Psychological Association)
- Coronavirus and Emerging Infectious Disease Outbreaks Response (Center for the Study of Traumatic Stress)
- COVID-19 Self Care Package for Nurses (American Nurses Association [ANA])
- Resources for Healthcare Professionals Coping with the COVID-19 Pandemic (Schwartz Center for Climate Change)

Downloadable Resources
Ideas and Strategies to Be Prepared for Future Surge
How Did We Survive the First Round?
Preparing for a Surge

• Order extra supplies:
  ▪ Stock dialyzers
  ▪ Cartridges
  ▪ Solutions

• Invest in extra machines.
• Plan for staffing concerns.
• Bed allocation/cohorting of COVID-19-positive dialysis patients
“Never doubt that a group of thoughtful committed people can change the world, indeed it is the only thing that ever has.”

~ Margaret Mead
Thank You

Q&A
References


Let Us Hear From You

Q&As from chat and Q&A panels
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-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:
    November 3, 2020, at 4 p.m. ET
  ▪ Provider-focused event:
    November 10, 2020, at 3 p.m. ET

• Visit [www.kidneyCOVIDinfocenter.com](http://www.kidneyCOVIDinfocenter.com) for information and to register.
Thank You!

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Additional COVID-19 resources for patients and providers:

www.kidneyCOVIDinfocenter.com

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