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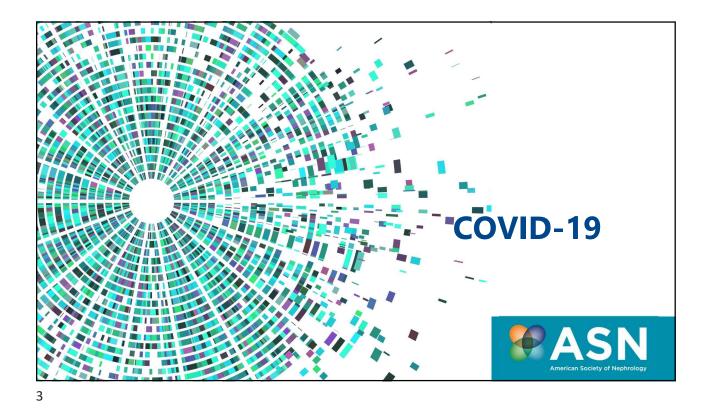


Welcome and Opening Remarks

ALAN KLIGER, MD

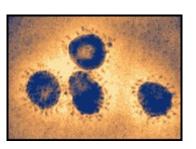
Clinical Professor of Medicine
Yale School of Medicine





Depends on 2 Factors

- How contagious is it?
- If I catch it, how dangerous is it?

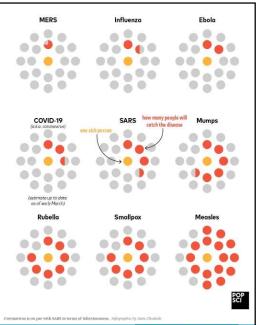






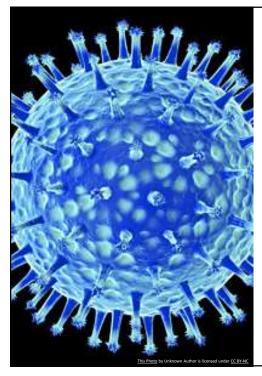
Just How Contagious is COVID-19?

- Image source: "Just How Contagious is COVID-19? This Chart Puts it in Perspective", Matthew R. Francis, February 20, 2020.
- https://www.popsci.com/story/health/how-diseasesspread/





5



Virus Mortality: Comparison with Other Viruses

• COVID-19	2-3%
• SARS	9.6%
• MERS	34%
• Recent Influenza Pandemics	0.1%
Swine Flu	0.02%



Dialysis Provision and COVID-19 Disease

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7

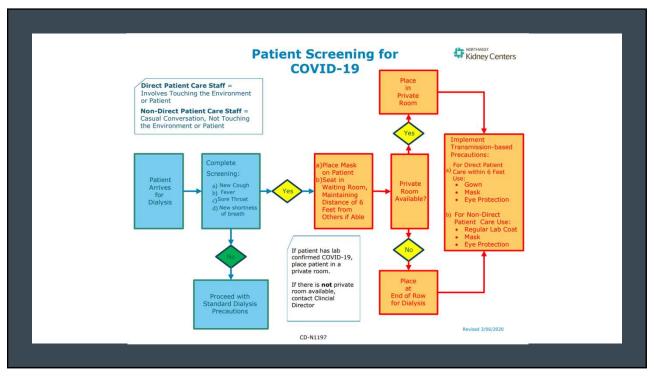
Basic Principles

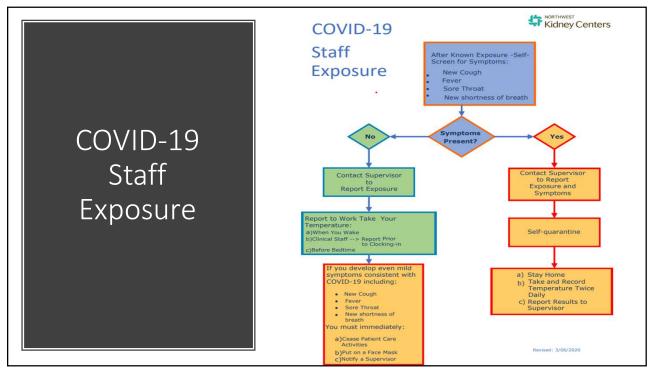
GUIDING PRINCIPLES:

- Ensure patients are coming to dialysis
- Remind all that this is a viral illness: droplet not airborne transmission

BASIC STEPS:

- Screen patients and use masks when appropriate: allocation issues
- Educate Staff and Patients education sheets and emails
- Educate staff to around PPE created video, used CDC resources
- Provide guidelines if ill +/- COVID19
- Clean surfaces at appropriate intervals





Leadership Messaging

Crafted straightforward communications

Used multiple outlets: Open lines of communication

- Send emails provided regularly with updates
- Hold conference calls on regular interval
- Provide direct contact information

Emphasized importance of leadership

- Contact facilities frequently
- Show visual presence as dyad partners

11

Evolving Issues

- When, who, how and where to test
- When to stop precautions
- How to dialyze within a facility
- How to consider use of PPE with supply issues

Importance of working with your local and national resources

- For example, county public health department
- Centers for Disease Control and Prevention (CDC)



Three Guiding Principles

- √ We can provide dialysis to COVID19 + patients
 - We have an obligation
- ✓ Follow the Science
 - Infection Prevention and Control
 - Highest Standards of Care
- ✓ Leadership is Critical
 - Assurance
 - Transparency
 - Communication
 - Support for patients, dialysis and medical staff

13

National Center for Emerging and Zoonotic Infectious Diseases





COVID-19 Guidance for Providers of Dialysis Services

SHANNON NOVOSAD, MD, MPH
Centers for Disease Control and Prevention (CDC)

National Center for Emerging and Zoonotic Infectious Diseases



Preparing Outpatient Hemodialysis Facilities for COVID-19

Dialysis Team, Prevention and Response Branch,
Division of Healthcare Quality Promotion,
Centers for Disease Control and Prevention

March 11, 2020

15

Presentation Objectives

- Describe current epidemiology of COVID-19
- Review how outpatient hemodialysis facilities should prepare for patients with COVID-19

COVID-19 is the abbreviation for Coronavirus Disease 2019

'CO' stands for 'corona'

'VI' stands for 'virus'

'D' stands for 'disease'

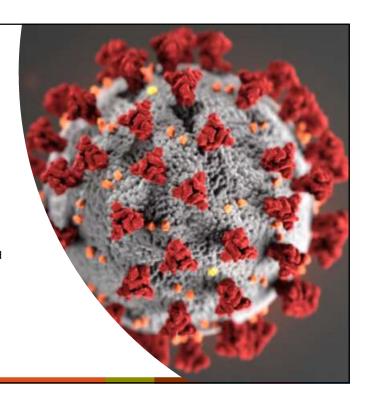
'19' refers to 2019

COVID-19

17

What is COVID-19?

- COVID-19 is a respiratory illness
- Caused by SARS-CoV-2, a type of virus called a 'coronavirus'
 - Related to SARS-CoV and MERS-CoV
- This novel (new) coronavirus was first detected in China
- On January 31, 2020, Health and Human Services Secretary Alex M. Azar II declared a public health emergency for the United States



How COVID-19 Spreads*



- Person-to-person spread is the primary mode of transmission
 - Between people in close contact with one another (about 6 feet)
 - Through respiratory droplets when an infected person coughs or sneezes



- Contact with infected surfaces or objects
 - It may be possible to get COVID-19 by touching surfaces and then touching your mouth, nose, or eyes

*COVID-19 is a new disease and we are still learning how it spreads

19

COVID-19 Signs and Symptoms

- It takes between 2-14 days for symptoms to start
- Common symptoms: Fever, cough, sore throat, shortness of breath, muscle aches, fatigue
- Less common symptoms: sputum production, headache, diarrhea
- Initial symptoms might be mild and fever might be absent





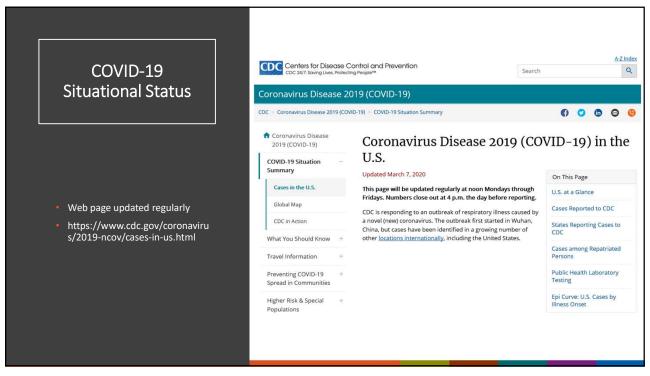


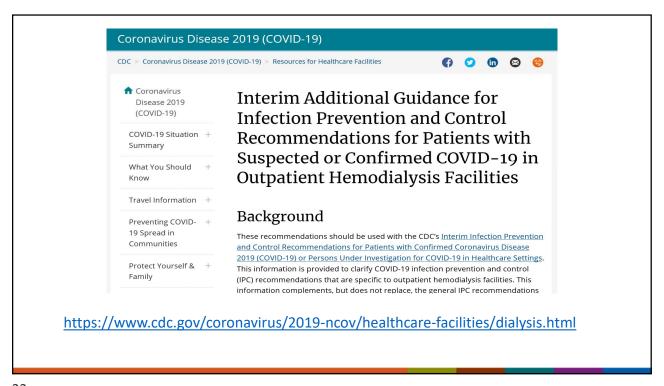
COVID-19 Clinical Course and Management

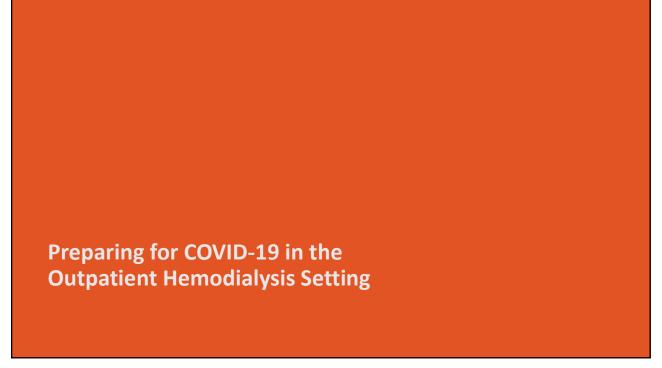
- Clinical presentation varies from asymptomatic to mild to severe or fatal illness
 - Mortality rate likely varies by age. Mortality rates among confirmed COVID-19 patients in one report¹:
 - 0.2% for patients<40 years
 - 8% for patients 70-79 years
 - 14.8% for patients at least 80 years
- Clinical signs and symptoms may worsen with progression to lower respiratory tract disease in the second week of illness
- No specific treatment for COVID-19 is currently available
- Clinical management includes prompt infection prevention and control measures and supportive management of complications

¹Chinese CDC. CCDC Weekly 2020; 8:113-122.

21







Background

- These recommendations supplement the CDC's <u>Interim Infection Prevention and Control Recommendations for Patients with Confirmed Coronavirus Disease 2019</u>
 (COVID-19) or Persons <u>Under Investigation for COVID-19 in Healthcare Settings</u>.
- This information is provided to clarify COVID-19 infection prevention and control (IPC) recommendations that are specific to outpatient hemodialysis facilities.

25

Educate Patients

- Provide information about COVID-19
- Describe actions the facility is taking to protect them
- Provide education about hand hygiene, respiratory hygiene, and cough etiquette
 - How to use facemasks
 - How to use tissues to cover nose and mouth when coughing or sneezing
 - Appropriate disposal of tissues and contaminated items in waste receptacles
 - How to perform hand hygiene

Educate Healthcare Personnel

- Provide information about COVID-19
- Provide information on infection prevention and control measures and explain how they protect healthcare personnel (HCP) and patients with an emphasis on:
 - Hand hygiene
 - Selection/use of personal protective equipment (PPE), including practicing how to put on, use, and take off PPE

27

Managing III HCP and Monitoring for Symptoms

- Implement sick leave policies that are non-punitive and flexible
- Explain how they can serve as a source of infections in the facility
 - Advise HCP not to report to work when ill
- If HCP develop fever or symptoms of respiratory illness (e.g,. cough, sore throat, shortness of breath) while at work
 - They should put on a facemask and return home
- Implement active screening (temp and symptoms) of HCP before their shift:
 - During times of community transmission
 - If COVID-19 patients in facility

Ensure Access to PPE and Other Supplies

- Conduct an inventory of PPE
- Make PPE accessible, including: Respirators (if available and facility has respiratory protection program); Facemasks; Gowns; Gloves; Eye protection (i.e., face shield or goggles)
- Provide alcohol-based hand sanitizer with 60-95% alcohol and tissues in waiting and treatment areas

29

Prepare the Waiting Area

- Post signs at clinic entrances with instructions for patients with fever or symptoms of respiratory infection to alert staff so appropriate precautions can be implemented
- Have space in waiting areas for ill patients to sit separated from other patients by at least 6 feet
- Provide tissues, alcohol-based hand rub (ABHR), and trash cans
- Post signs about hand hygiene, respiratory hygiene, and cough etiquette

Plans for Triaging Patients

- Come up with a plan to identify patients with fever or symptoms of respiratory infections before they enter the treatment area
 - Instruct patients to call ahead to report fever or respiratory symptoms, which allows facility to:
 - Plan ahead for their arrival OR
 - Direct them to the hospital
 - Ask patients about fever or respiratory symptoms when they arrive at facility
 - Put facemask on symptomatic patients; facemask should be worn for the duration of their stay in the facility
 - Bring symptomatic patients back to an appropriate treatment areas as soon as possible. If not possible, medically stable patients should:
 - Sit separated from other patients by at least 6 feet
 - Wait in a personal vehicle or outside the facility until it is their turn

31

Determine Appropriate Placement for Symptomatic Patients

- Patient may need to be transferred to another facility for the following reasons
 - Based on patient's clinical symptoms, a higher level of care may be required
 - OR
 - In cases of suspected or confirmed, COVID-19, if the facility is unable to comply with CDC's <u>Interim Infection Prevention and Control Recommendations for Patients with Confirmed Coronavirus Disease 2019 (COVID-19) or Persons Under Investigation for COVID-19 in Healthcare Settings</u>. If COVID-19 is suspected, the health department should also be notified.
- If transferring the patient to another facility, inform the receiving facility and transport personnel of the suspected diagnosis

Placement of Symptomatic Patients During Dialysis Treatment

- Maintain at least 6 feet of separation between masked, symptomatic patients and other patients
- Ideally, symptomatic patients would be dialyzed in a separate room (if available) with the door closed
- If a separate room is not available:
 - Perform treatment at a corner or end-of-row station, away from the main flow of traffic (if available)
 - The patient should be separated by at least 6 feet from the nearest patient (in all directions)
 - If the patient is unable to tolerate a mask, then they should be separated by at least 6 feet from the nearest patient station (in all directions)

33

Placement of Symptomatic Patients During Dialysis Treatment cont.

- Hepatitis B isolation rooms should only be used for patients with symptoms of respiratory infection if:
 - The patient is hepatitis B surface antigen positive
 - OR
 - The facility has no patients on the census with hepatitis B infection who would require treatment in the isolation room

Placement of Symptomatic Patients During Dialysis Treatment cont.

- If a hemodialysis facility is dialyzing more than one patient with respiratory symptoms, consideration should be given to cohorting these patients and the HCP caring for them together in the section of the unit and/or on the same shift
 - Consider the last shift of the day
- If the etiology of respiratory symptoms is known, patients with different etiologies should not be cohorted
 - For example, patients with confirmed influenza and COVID-19 should not be cohorted

35

Personal Protective Equipment (PPE) for Undiagnosed Respiratory Infections

- HCP caring for patients with undiagnosed respiratory infections should follow Standard, Contact, and Droplet Precautions with eye protection unless the suspected diagnosis requires Airborne Precautions (e.g., tuberculosis)
 - Isolation gown
 - Gloves
 - Facemask
 - Eye protection
- Position a trash can near the dialysis station for ease of discarding PPE

Additional Information About Isolation Gowns

- Isolation gown
 - The isolation gown should be worn over or instead of the cover gown that is normally worn by hemodialysis personnel
 - When gowns are removed, place the gown in a dedicated container for waste or linen before leaving the dialysis station
 - Disposable gowns should be discarded after use
 - Cloth gowns should be laundered after each use

37

Additional Information About Eye Protection

- Eye protection
 - Goggles
 - OR
 - Disposable face shield that covers the front and sides of the face
 - Personal glasses and contact lenses are NOT considered adequate eye protection

When COVID-19 is Suspected or Confirmed

- Additional Measures:
 - Notify the health department about the patient
 - Know your local and state health department point of contacts:
 - Contact information for the healthcare-associated infections program in each state health department is available here: https://www.cdc.gov/hai/state-based/index.html
 - Follow the <u>Interim Infection Prevention and Control Recommendations for Patients with Confirmed Coronavirus Disease 2019 (COVID-19) or Persons Under Investigation for COVID-19 in Healthcare Settings.</u>
 - This includes recommendations on PPE
 - Airborne Infection Isolation Rooms (AIIRs) are not required

39

Environmental Cleaning and Disinfection

- Routine cleaning and disinfection procedures are appropriate for COVID-19 in dialysis settings
 - Ensure HCP have access to EPA-registered, hospital-grade disinfectants
 - Refer to the EPA-website for List N: Disinfectants for Use Against SARS-CoV-2: https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2
- Any surface, supplies, or equipment located within 6 feet of symptomatic patients should be disinfected or discarded

Additional Considerations

41

Reporting PPE Shortages

- If your facility is concerned about a potential or imminent shortage of PPE, alert your state/local health department and local healthcare coalition, as they are best positioned to help facilities troubleshoot through temporary shortages.
- Link to identifying your state HAI coordinator: https://www.cdc.gov/hai/state-based/index.html
- Link to healthcare coalition/preparedness: https://www.phe.gov/Preparedness/planning/hpp/Pages/find-hc-coalition.aspx

Preserving PPE Supply in Times of Shortage

- Prioritize isolation gowns for aerosol-generating procedures, care activities where splashes and sprays are anticipated, and high-contact patient care activities:
 - Initiating and terminating dialysis treatment, manipulating access needles or catheters, helping the patient into and out of the station, and cleaning and disinfection of patient care equipment and the dialysis station

43

Preserving PPE Supply in Times of Shortage cont.

- Implement extended use of eye and face protection (respirator or facemask)
 - Extended use means HCP remove only gloves and gowns (if used) and perform hand hygiene between patients with the same diagnosis (e.g., confirmed COVID-19) while continuing to wear the same eye protection and respirator or facemask (i.e., extended use)
 - The same eye protection and respirator or facemask can also be worn (without removing) for repeated contacts with the same patient
 - HCP must take care not to touch their eye protection and respirator or facemask
 - Eye protection and the respirator or facemask should be removed and hand hygiene performed if they become damaged or soiled <u>and</u> when leaving the unit

CDC Web Resources

- Infection Prevention and Control Guidance for Healthcare Settings:
 - https://www.cdc.gov/coronavirus/2019-ncov/infection-control/control-recommendations.html
- Steps Healthcare Facilities Can Take Now to Prepare
 - https://www.cdc.gov/coronavirus/2019-ncov/healthcare-facilities/steps-to-prepare.html
- People at Risk for Serious Illness
 - https://www.cdc.gov/coronavirus/2019-ncov/specific-groups/high-risk-complications.html
- Healthcare Infection Prevention and Control FAQs
 - https://www.cdc.gov/coronavirus/2019-ncov/infection-control/infection-prevention-control-faq.html
- Videos
 - https://www.cdc.gov/coronavirus/2019-ncov/communication/videos.html

45

Thank You!

Questions?

For more information, contact CDC 1-800-CDC-INFO (232-4636) TTY: 1-888-232-6348 www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

National Center for Emerging and Zoonotic Infectious Diseases

Division of Healthcare Quality Promotion





Questions

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47



Closing Remarks

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