

# Importance of Including Nephrology Professionals in Planning for and Responding to Emergencies: Pandemics and Disasters, Both Natural and Manmade

By Matthew Sinclair, Nancy Welder, Vineeta Kumar, and Joseph Kessler, on behalf of the ASN C-ET Lessons Learned and Preparing for the Future Workgroup

The COVID-19 pandemic started in Wuhan, China, in late 2019 and quickly spread worldwide. The first reported patient to die from COVID-19 in the United States was a patient undergoing maintenance hemodialysis in Washington state. Outbreaks in major metropolitan areas in early 2020 threatened the ability of overwhelmed health care delivery systems. The need to save lives and prevent the spread of the infection among patients with chronic kidney disease and health care workers caring for them presented great challenges because these individuals could not isolate at home, and information available from authorities was conflicting. Individuals with the SARS-CoV-2 infection receiving hemodialysis had a worse prognosis than the general population who had the infection. The mortality rate for patients undergoing dialysis was 37% higher in April 2020 compared with the same calendar weeks in 2017–2019 (1). Furthermore, patients who were immunosuppressed because of a transplant or treatment of other chronic diseases were particularly vulnerable to infection and its complications, due to, in part, an associated higher burden of comorbidities (2, 3). Additionally, when health care resources became overwhelmed, transplant and dialysis access surgeries were considered elective.

Expertise from nephrology professionals can aid in making important decisions regarding elective versus essential life-sustaining procedures, reopening health care facilities, restarting immunosuppressive medication protocols for patients who are infected or in close contact with individuals who are infected, and organ procurement safety. The timeline of when a natural disaster or worldwide pandemic will occur is usually unknown; therefore, nephrology professionals should be included in and contribute to preparation activities and be privy to disaster intelligence during actual events. Nephrology professionals can provide coordination and collaboration to ensure that adequate staffing models, equipment, dialysis solutions, filters, and appropriate personal protective equipment

are available regardless of where patients receive care—home, hospital, or outpatient.

It is now evident that nephrology professionals were an essential part of responding to many crises during the COVID-19 pandemic. However, the specialized training of nephrology professionals during emergencies is not limited to pandemics. Many emergencies requiring nephrology professionals include but are not limited to weather, fire, mass casualties, earthquakes, terrorist attacks (both biologic and technologic), and building collapses. Emergencies may result in individuals developing acute kidney injury requiring life-sustaining treatment that may result in an unnecessary system burden when advanced preparation is not in place. In addition to individuals with newly diagnosed kidney injury, patients already living with kidney diseases require ongoing life-sustaining therapies; therefore, coordination between emergency services and outpatient dialysis facilities is essential to protect those patients and the people caring for them. Similarly, discharge from acute facilities among patients who are newly diagnosed and medically stable requiring maintenance dialysis in an outpatient setting is critical to reduce the burden on overcrowded hospitals. Coordination of emergency preparedness activities with outpatient facilities is essential to ensure that there is capacity to accommodate the acute influx of patients during a crisis. Similarly, during any crisis, patients undergoing a transplant will need to have access to practitioners and pharmacies to continue receiving critical transplant medications and treatments.

Each emergency, including pandemics and disasters, both natural and manmade, may pose unique challenges that nephrology experts need to plan for in advance, and it is critical that nephrology professionals are included in emergency intel during actual events and allowed to contribute to emergency plan refinement.

To learn more about the profession of nephrology and access additional information and resources, visit ASN

Excellence in Patient Care (EPC) online at [epc.asn-online.org](http://epc.asn-online.org). The Figure delineates how the COVID-19 and Emerging Threats (C-ET) Workgroup fits under the EPC umbrella, in addition to highlighting completed and ongoing actions of this workgroup. Be sure to review the C-ET and the Emergency Preparedness Initiative pages. You can contact a member of the EPC staff via email at [EPC@asn-online.org](mailto:EPC@asn-online.org). Ensure your health care system, community, state, and nation are prepared for the next emergency by informing leaders at all levels of the importance of having nephrology professionals included in emergency preparedness. ■

## Workgroup Members

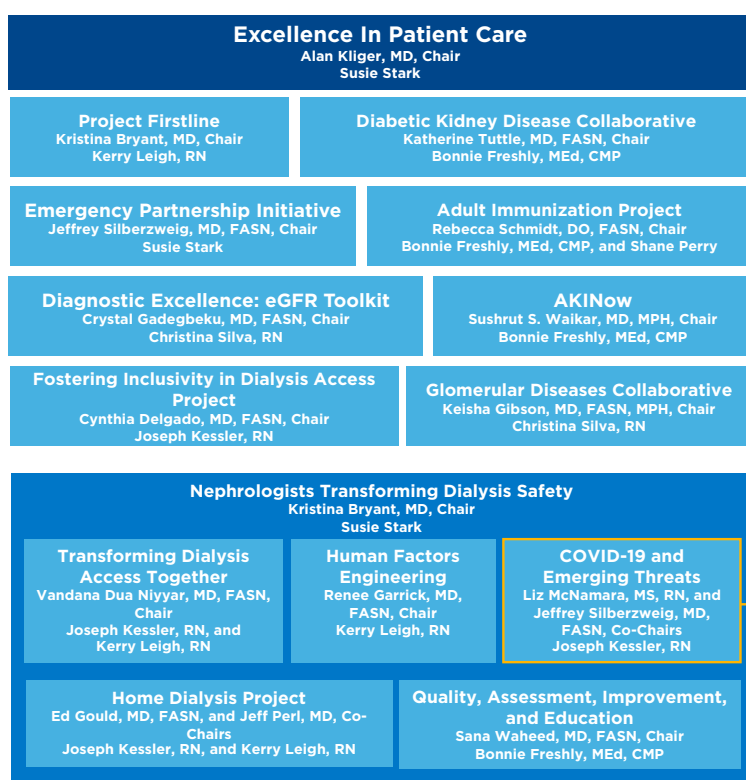
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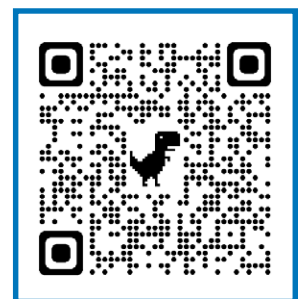
## References

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Figure. C-ET Workgroup organization and actions



COVID-19 and Emerging Threats	
Action	Accomplishment
<b>COVID-19 After-Action Meeting</b>  <i>Learn more:</i> <a href="https://bit.ly/COVIDMEETING">https://bit.ly/COVIDMEETING</a>	Brought together patients, clinicians, and partners from many areas of government to review the impact of the pandemic and successes and to discuss opportunities.
<b>COVID-19 Virtual Summits</b>  <i>Lessons learned and call-to-action to be published in Fall/Winter 2024:</i> <a href="https://bit.ly/ASNSET">bit.ly/ASNSET</a>	Bring together community partners from ESRD Networks, CMS, state, and regional officials to review the impact of the pandemic and successes and to discuss opportunities.
<b>Multi-Drug Resistant Organism (MDRO) Compendium</b>  <i>Coming summer of 2024 with the first organisms Candida auris and tuberculosis: <a href="https://bit.ly/ASNSET">bit.ly/ASNSET</a></i>	Provide knowledge, practical pearls, precautions, and resources to safely care for patients infected or colonized with an MDRO.
<b>Communication channel for the nation's dialysis companies</b>	Share data and experience during regular meetings with clinical leadership of dialysis companies and medical officers from the CDC under the auspices of ASN.
<b>Preparing for a surge blueprint</b>  <i>Coming summer of 2024: <a href="https://bit.ly/ASNSET">bit.ly/ASNSET</a></i>	Provide nephrology professionals with foundational steps to prepare for biologic threats.
<b>Leadership in Uncertainty and Crisis Training Module</b>  <i>Coming summer of 2024: <a href="https://bit.ly/ASNSET">bit.ly/ASNSET</a></i>	Prepare nephrology professionals with skills and knowledge to lead teams during times of emergencies.



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