



PRESS RELEASE

ASN Contacts:

Christine Feheley (202) 640-4638 | cfeheley@asn-online.org

Tracy Hampton thampton@nasw.org

THE IMPACT OF COVID-19 ON PEOPLE WITH KIDNEY FAILURE

Study reveals high rates of hospitalizations and deaths among patients undergoing dialysis or living with kidney transplants.

Highlights

- Among patients undergoing dialysis, the rate of COVID-19 hospitalizations peaked between March 22 and April 25, and it was 40-times higher than the rate in the general population.
- Compared before the COVID-19 pandemic, the risks of dying from any cause were 17% and 30% higher during the second quarter of 2020 among patients receiving dialysis and patients with kidney transplants, respectively.
- COVID-19 hospitalization and death rates both exhibited racial disparities.

Washington, DC (April 8, 2021) — A new analysis reveals that individuals with kidney failure have faced especially high hospitalization and death rates during the COVID-19 pandemic. The findings, which appear in an upcoming issue of *JASN*, support prioritization of these patients in COVID-19 vaccination programs.

Approximately 800,000 people receive treatment for kidney failure in the United States, either by undergoing dialysis or living with a kidney transplant. Many patients receive dialysis in healthcare facilities multiple times per week and thus have not been able to shelter in place during the COVID-19 pandemic. On the other hand, patients with a transplant take medications to prevent organ rejection and are therefore vulnerable to infection.

To examine the impact of COVID-19 in these patients, Eric D. Weinhandl, PhD, MS ([Chronic Disease Research Group](#), a division of Hennepin Healthcare Research Institute and the Coordinating Center of the [United States Renal Data System](#)) and his colleagues analyzed data from the Centers for Medicare & Medicaid Services Renal Management Information System, before and during the COVID-19 pandemic.

The team found that among patients undergoing dialysis, the rate of COVID-19 hospitalizations peaked between March 22 and April 25. “The trajectory of the rate of COVID-19 hospitalizations among dialysis patients tracked the corresponding trajectory in the general population, but was roughly 40 times higher in magnitude,” said Dr. Weinhandl. Non-Hispanic Black and Hispanic patients had especially high hospitalization rates, while patients undergoing peritoneal dialysis at home had lower rates compared with those undergoing hemodialysis in clinics.

The risks of dying from any cause were 17% and 30% higher from March 22–July 4 among patients receiving dialysis and patients with kidney transplants, respectively, compared with rates in 2017–2019. Death rates were especially high among non-Hispanic Black, Hispanic, and Asian patients. Also, during this time, patients on dialysis were hospitalized 17% less frequently than typical for reasons other than COVID-19.

“This study suggests that the effect of the initial phase of the pandemic on both dialysis and kidney transplant patients has been profound,” said Dr. Weinhandl. “With markedly higher rates of all-cause mortality in both dialysis and kidney transplant patients during the second quarter of 2020, there is now a clear rationale for prioritization of kidney failure patients in COVID-19 vaccination schedules promulgated by states.”

The authors noted that the study’s finding that patients undergoing peritoneal dialysis had lower rates of COVID-19 hospitalizations compared with patients undergoing hemodialysis provide additional support for the benefits of home dialysis, as the home setting offers protection from community transmission of viruses.

Study co-authors include James B. Wetmore, MD, MS, Yi Peng, MS, Jiannong Liu, PhD, David T. Gilbertson, PhD, and Kirsten L. Johansen, MD.

Disclosures: Weinhandl reports a consulting relationship with Fresenius Medical Care North America, providing input in epidemiologic research about home dialysis. Between March 2016 and April 2020, Weinhandl was employed by NxStage Medical and Fresenius Medical Care North America (following the acquisition of NxStage Medical). Wetmore reports participation in advisory boards of Aurinia Pharmaceuticals, OPKO Health, and Reata Pharmaceuticals, and receipt of honoraria for academic continuing medical education from Healio and NephSAP. Gilbertson reports a consulting relationship with Amgen, providing general input in epidemiologic and biostatistical research. Johansen reports participation in the steering committee of ASCEND, a clinical trial program evaluating the efficacy and safety of daprodustat and supported by GlaxoSmithKline.

The article, titled “Initial Impact of Novel Coronavirus Disease 2019 on Patients with End Stage Kidney Disease,” will appear online at <http://jasn.asnjournals.org/> on April 8, 2021, doi: 10.1681/ASN.2021010009.

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