STUDY REVEALS RISK OF DEATH AFTER HURRICANES FOR PEOPLE ON DIALYSIS

Risk is especially high immediately after storms.

Highlights

- In an analysis of 1997–2017 data on U.S. patients requiring dialysis, exposure to a hurricane was associated with a higher risk of death.
- Risk of death was highest immediately after a hurricane and waned over time.

Washington, DC (July 14, 2022) — Many individuals with kidney failure rely on dialysis, but access to this life-sustaining therapy can be impeded by extreme weather events—such as hurricanes—that disrupt power, water, and transportation systems. A recent study in JASN found that patients undergoing dialysis face a higher risk of dying in the 30 days after a hurricane.

Because climate change is expected to intensify extreme weather events like hurricanes, it's important to understand and address the toll that hurricanes take on people who need dialysis. To provide insights, Matthew Blum, MD (Johns Hopkins School of Medicine) and his colleagues analyzed information on patients requiring maintenance dialysis who were registered in the United States Renal Data System and who initiated treatment between 1997 and 2017 in one of 108 hurricane-affected counties.

The researchers identified 187,388 patients and 27 hurricanes, and 29,849 patients were exposed to at least one hurricane. A total of 105,398 deaths were recorded in 529,339 person-years of follow-up on dialysis. (This means that among 529 patients, there were approximately 105 deaths over one year.) Hurricane exposure was associated with a 13% higher risk of death after adjusting for demographic and socioeconomic factors. Also, patients' risk of dying was highest immediately after a hurricane and waned over time.

"Our findings suggest that dialysis-dependent patients are vulnerable during hurricanes and highlight the need to safeguard this population, especially given the predicted increased hurricane intensity with climate change," said Dr. Blum. "Anything that disrupts someone’s ability to obtain dialysis—including extreme weather—can put them at risk of death. There are groups such as the Kidney Community Emergency Response Coalition that seek to prepare for these events."
Dr. Blum’s co-authors include Yijing Feng, MHS, G. Brooke Anderson, PhD, Dorry L. Segev, MD, PhD, Mara McAdams-DeMarco, PhD, and Morgan E. Grams, MD, PhD.

Disclosures: The authors reported no financial disclosures.


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