Study finds older adults hospitalized for heart failure had high risk of kidney complications

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Researchers from Brigham and Women's Hospital, a founding member of the Mass General Brigham health care system, have found links between heart failure and kidney disease that support new approaches for integrating the care of these conditions.

In an analysis that included adults ages 65 and older who were hospitalized for heart failure from across 372 sites in the U.S., researchers found that patients had a substantial risk of kidney complications, with approximately 6% progressing to dialysis within a year of being hospitalized for heart failure. The results are published in JAMA Cardiology.

"We know that heart and kidney health are highly interconnected, but management of heart and kidney disease remains relatively siloed, and kidney health often isn't prioritized in patients with heart disease until advanced stages," said first author John Ostrominski, MD, a fellow in Cardiovascular Medicine and Obesity Medicine at the Brigham.

"Declining kidney function is often asymptomatic until late in the disease course, but even less advanced stages of kidney impairment can have important implications for cardiovascular health. Hence, there's a need for analyses that assess kidney outcomes in people with heart failure."
About two thirds of older adults with heart failure have abnormal kidney function. However, few analyses to date have investigated the occurrence of clinically relevant kidney outcomes, such as hospitalization for acute kidney injury or dialysis, in patients with heart failure. Evaluating these more recognizable and patient-centered outcomes, according to Ostrominski, may result in substantial changes to the way that heart and kidney disease are managed together in the clinic.

The study analyzed Medicare claims data from 85,298 patients over the age of 65 who were hospitalized with heart failure between 2021 and 2024.

The data was sourced from the Get with the Guidelines-Heart-Failure Registry, an initiative supported by the American Heart Association that seeks to connect hospitals with current evidence-based guidelines and accurate measurement tools to improve care quality and industry practices. The registry is also proving a valuable source of information for researchers examining trends in health outcomes for patients with heart failure.

In the present study, 63% of patients were discharged with significantly impaired kidney function, as measured by their rate of filtration. The researchers also found that the risk of adverse kidney outcomes increased steeply in patients with lower kidney function. By one year after discharge, 6% of patients were on dialysis, and 7% were either on dialysis or had progressed to end stage kidney disease.

The findings suggest that at the individual provider level, cardiologists should prioritize assessing kidney function—including measuring kidney filtration and looking for evidence of protein in the urine, also known as albuminuria—in all patients with heart failure, and, when indicated, consider heart therapies that are known to improve kidney outcomes.
More broadly, the study emphasizes the need for systemic changes that better support the simultaneous management of heart and kidney disease, including establishing clinics focused on integrating these two care areas, incorporating kidney outcomes into health care performance metrics for cardiovascular diseases, and expanding Medicare reimbursement protocols for interdisciplinary chronic care management.

Researchers at Mass General Brigham are actively engaged as sites for clinical trials evaluating newer treatment strategies for individuals with cardiovascular and kidney disease. The Accelerator for Clinical Transformation team is also developing new ways of delivering care—including medications with established kidney benefits—to eligible patients with and without heart failure.

"The trends we've observed aren't especially surprising given what we know about the links between heart and kidney health, but what's important is that this research emphasizes the scope of the problem and gives us information we can act upon to directly improve clinical outcomes in patients with heart failure," said Ostrominski.

"There are important opportunities for patients and providers, health care institutions, and, at the broader state and national levels, in terms of health care policy that could make a big difference for patients."


Provided by Brigham and Women’s Hospital

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