

Patients may be at risk after discharge from the ER with acute kidney injury

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A new study indicates that patients discharged from the emergency department with acute kidney injury (AKI) remain at an increased risk of dying within 30 days. The findings appear in an upcoming issue of the *Clinical Journal of the American Society of Nephrology (CJASN)*.

AKI, an abrupt decline in kidney function, is an increasingly prevalent and potentially serious condition. It is well understood that there are [negative health effects](#) associated with AKI for [patients](#) who are hospitalized; however, it's unclear how AKI may affect the health of patients who are not admitted to the hospital.

To investigate, Rey Acedillo, MD (London Health Sciences Centre in Ontario) and his colleagues conducted a population-based retrospective study in Canada from 2003 to 2012. The researchers matched 4379 patients who presented to the [emergency department](#) with AKI and were discharged home to 4379 patients who presented with AKI and were hospitalized. They also matched 6188 patients discharged home from the emergency department with AKI to 6188 patients discharged home with no AKI.

Among the major findings:

- The analysis revealed 6346 emergency department discharges with AKI.
- Within 30 days, 149 patients (2%) died, 22 (0.3%) received acute dialysis, and 1032 (16%) were hospitalized.
- Among patients with moderate and severe AKI, 5% and 16% died within 30 days, respectively.
- Patients with an emergency department discharge had a lower rate of death within 30 days than those hospitalized with AKI (3% vs. 12%).
- Those with an emergency department discharge with AKI had a higher rate of death within 30 days than those with no AKI (2% vs. 1%).

"It is reassuring that many patients with AKI are appropriately hospitalized; however, our study findings indicate that patients with AKI who are discharged home may still have an increased risk of poor outcomes," said Dr. Acedillo. "This is particularly true for patients with moderate-to-severe AKI and physicians should be vigilant in ensuring close follow-up and repeat kidney function testing for patients discharged home from the emergency department."

Dr. Acedillo noted that a sudden deterioration in kidney function may be a marker of poor health. "If your [kidney](#) function is affected but you are feeling well enough to go home from the emergency department, it is important to ensure that you and your [emergency](#) department physician are aware of this decline in [kidney function](#) and that you see your family doctor or specialist as soon as possible."

In an accompanying editorial, Jay Koyner, MD (University of Chicago) stressed that every incident case of AKI is an opportunity to improve patient care and prevent morbidity and mortality, regardless of the AKI setting or severity. "Identifying

patients with early AKI... and then adopting a multifaceted renal-focused care bundle to be implemented by a multi-disciplinary AKI-focused rapid response team may be the first step in improving patient outcomes," he wrote.

More information: "Characteristics and Outcomes of Patients Discharged Home from an Emergency Department with Acute Kidney Injury," *Clinical Journal of the American Society of Nephrology* (2017). July 20, 2017, [DOI: 10.2215/CJN.10431016](https://doi.org/10.2215/CJN.10431016)

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