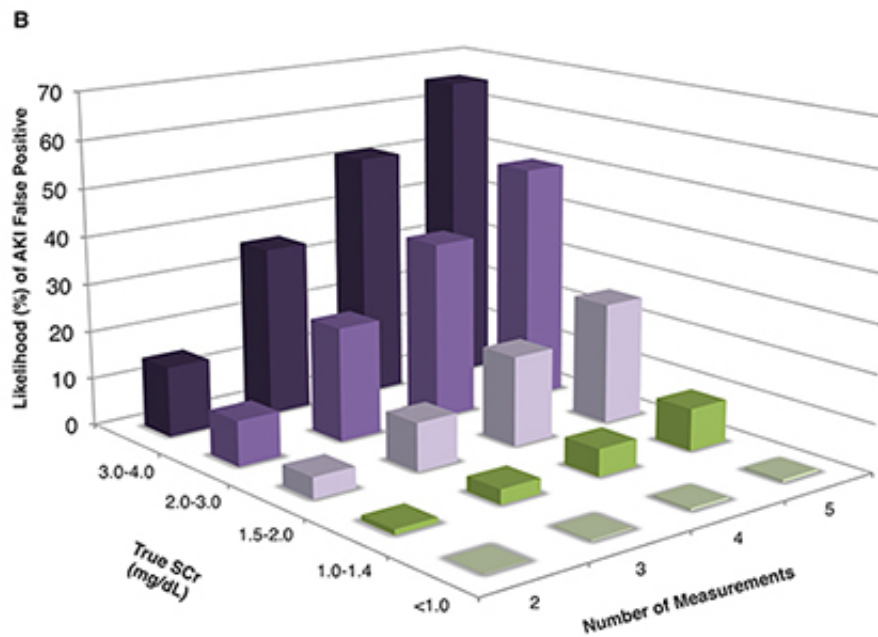


Definition of acute kidney injury may misclassify patients

September 7 2015, by Ziba Kashef



The likelihood of false-positive acute kidney injury diagnoses increases with more frequent measurement, and when the true creatinine is higher.

Yale researchers found that the current definition of acute kidney injury may be causing patients without the condition to be misclassified.

Their research, published in the *Clinical Journal of the American Society of Nephrology*, confirms the limitations of the consensus definition for a condition that affects hundreds of thousands of patients in the United

States each year.

Currently, [acute kidney injury](#) is diagnosed when the serum creatinine concentration, which measures levels of a metabolism byproduct in the blood, rises. Small increases in SCr may indicate acute kidney injury—a sudden loss of kidney function—that requires early treatment, according to internationally accepted criteria. But, the researchers note, variations in the quality and frequency of lab tests can contribute to false-positive results and misdiagnosis of kidney disease.

To assess the false-positive rate for acute kidney injury, assistant professor of nephrology Dr. F. Perry Wilson and his co-authors used clinical data from more than 2,000 patients to simulate SCr testing. Accounting for variations in labs and biology, they determined the proportion of patients who would be erroneously diagnosed. "The basic finding is that overall the false-positive rate is 8%, and in those patients with chronic [kidney disease](#), the false-positive rate is 30.5%," said Wilson.

Such false positives could result in unnecessary interventions and even further kidney damage, he said. "It's clear that especially in this population of [patients](#), this definition of acute [kidney injury](#) is inadequate. We need to create new definitions."

Provided by Yale University

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