

Scientists confirm better test for acute kidney injury in children

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Yale researchers compared two markers for acute kidney injury (AKI), an increasingly common condition affecting thousands of hospitalized patients each year. The Yale team members and their co-authors found that a less commonly used, but more accurate, test may better define this condition, leading to improvements in research and care.

AKI, an abrupt loss of [kidney function](#), is most often defined by testing levels of serum creatinine (SCr), a chemical waste product that increases in the blood when kidneys function abnormally. However, the SCr tends to rise late in the course of disease, putting patients at risk for morbidity and death.

Lead author Dr. Chirag Parikh, director of the Program of Applied Translational Research at Yale School of Medicine, and the team compared data collected from hospitals treating children undergoing cardiac surgery, which raised their risk for AKI. They compared postoperative outcome associations for patients diagnosed by either SCr or Cystatin C (CysC), an alternative marker for kidney function.

The researchers found that AKI defined by acute CysC elevation was more strongly associated with two key proteins that serve as biomarkers for [kidney injury](#). While more research is needed, the findings suggest that CysC is a more precise indicator of true [acute kidney injury](#) than SCr, and that, combined, the two tests may help clinicians identify and treat AKI [patients](#) sooner.

More information: "Association of Definition of Acute Kidney Injury by Cystatin C Rise With Biomarkers and Clinical Outcomes in Children Undergoing Cardiac Surgery." *JAMA Pediatr*. Published online April 06, 2015. [DOI: 10.1001/jamapediatrics.2015.54](https://doi.org/10.1001/jamapediatrics.2015.54)

Provided by Yale University

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