

New study identifies biomarkers for early risk assessment of acute kidney injury

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Acute kidney injury strikes large numbers of hospitalized patients, including those with no prior kidney-related illness, and is one of the most costly and deadly conditions affecting critically ill patients. Findings published today in *Critical Care* from a Mayo Clinic-led, multicenter study identify two biomarkers of acute kidney injury that can be easily measured in urine and detect affected patients roughly 12 to 36 hours earlier than current tests.

"Failure to recognize and manage acute kidney injury in the early stages can lead to devastating outcomes for patients and increased costs to the [health care system](#). Unfortunately, current blood and urine tests are not able to detect it early enough to avoid further complications or provide any chance for intervention," says lead author Kianoush B. Kashani, M.D., a [nephrologist](#) and intensivist at Mayo Clinic.

The study's findings give physicians a tool to determine early on whether a patient is at risk, Dr. Kashani says.

Researchers evaluated nearly 340 biomarkers to find the two with the highest correlation to kidney injury risk. The markers, Insulin Growth Factor [Binding Protein-7](#) (IGFBP-7) and Tissue Inhibitor of Metalloproteinases-2 (TIMP-2), were later validated by another multicenter study known as the Sapphire Trial.

Provided by Mayo Clinic

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