

**Title: The Use of the Renal Angina Index in Predicting Acute Kidney Injury**

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In recent years, the use of the renal angina index (RAI) to calculate and accurately predict risk for the development of acute kidney injury (AKI) has been heavily explored. AKI is traditionally diagnosed by an increase in serum creatinine (sCr) concentration or oliguria, both of which are neither specific or sensitive, especially among children. An RAI score may be calculated by combining objective signs of kidney dysfunction (such as sCr), and patient context, (such as risk factors for AKI), thus potentially serving as a more accurate biomarker for AKI. Due to the propitious and novel nature of RAI, this systematic review aims to analyze how well RAI serves as a predictor of AKI outcomes. A comprehensive literature search was conducted in PubMed/Medline and Google Scholar.

The literature that studied the prognostic aspect of early prediction of AKI in the pediatric and adult population via renal angina index versus Cr was included.

The initial literature search included 149 studies and a total of 10 studies reporting the outcomes of interest were included. The overall sample size across these studies was 11,026. The predictive ability of RAI included a pooled (95% CI) sensitivity of 79.21%, specificity of 73.22%, and negative predictive value of 94.83%.

Currently, without RAI, clinicians lack a way to risk stratify patients capable of developing AKI. RAI shows benefit in the prediction of AKI among adult and pediatric populations.