



## VIDAS® NEPHROCHECK® Identifies Kidney Stress Before Damage Occurs

In a multicenter study, clinical trials demonstrated that patients with an AKIRISK™ Score > 0.30 are at greater risk for developing moderate to severe AKI.<sup>8</sup>

The combination of urinary biomarkers TIMP-2 and IGFBP-7 demonstrated:

- A single cutoff of AKIRISK Score > 0.30 achieves high sensitivity up to **89.9%** with a specificity of **45.2%**.

$$\text{AKIRISK Score} = \frac{[\text{TIMP-2} \cdot \text{IGFBP-7}]}{1000}$$

(units=(ng/mL)<sup>2</sup>/1000)

VIDAS NEPHROCHECK identifies the majority of AKI positive cases:  
**UP TO 89.9%**

**Intended Use:** The VIDAS NEPHROCHECK assay is intended to be used in conjunction with clinical evaluation in patients who currently have or have had within the past 24 hours acute cardiovascular and/or respiratory compromise and are ICU patients as an aid in the risk assessment for moderate or severe acute kidney injury (AKI) within 12 hours of patient assessment. The VIDAS NEPHROCHECK test is intended to be used in patients 21 years of age or older. The VIDAS NEPHROCHECK test is an automated test for use on the VIDAS 3 instrument.

## NOW AVAILABLE ON VIDAS® 3

## VIDAS® NEPHROCHECK® FDA-Cleared To Aid in the Risk Assessment of AKI



- Specific to AKI ( $p < 0.05$ )<sup>8</sup>
- Easy, fast and simple, 45-minute urine test
- Bidirectional LIS connection with VIDAS® 3
- Controls can be run day of use with patient tests

## VIDAS® NEPHROCHECK® [TIMP-2 • IGFBP-7]

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## VIDAS® NEPHROCHECK® Identify Patients at Risk for Moderate to Severe AKI

- There is a critical need to identify patients at risk for AKI and to better manage those patients toward preventing AKI and to treat it once it occurs.

VIDAS NEPHROCHECK Test Results	What It Means*
Negative AKIRISK™ Score $\leq 0.30$	Patient is at lower risk of developing moderate to severe AKI within 12 hours of assessment
Positive AKIRISK™ Score $> 0.30$	Patient is at increased risk of developing moderate to severe AKI within 12 hours of assessment

\*Should not be used as a standalone test. Test results must be evaluated with other clinical laboratory test information. Refer to the VIDAS NEPHROCHECK Instructions for Use for full interpretation information.

## USE OF KDIGO CARE BUNDLE CAN SIGNIFICANTLY REDUCE AKI SEVERITY<sup>9</sup>

### KDIGO Bundle<sup>13</sup>

KDIGO consensus recommends early intervention to decrease the risk of Stage 2 and 3 (moderate/severe) AKI

### KDIGO recommends the following for patients identified as high risk:

- Discontinue nephrotoxic agents when possible
- Ensure volume status and perfusion pressure
- Consider hemodynamic monitoring
- Closely monitor serum creatinine and UOP
- Avoid hyperglycemia
- Consider alternatives to IV contrast



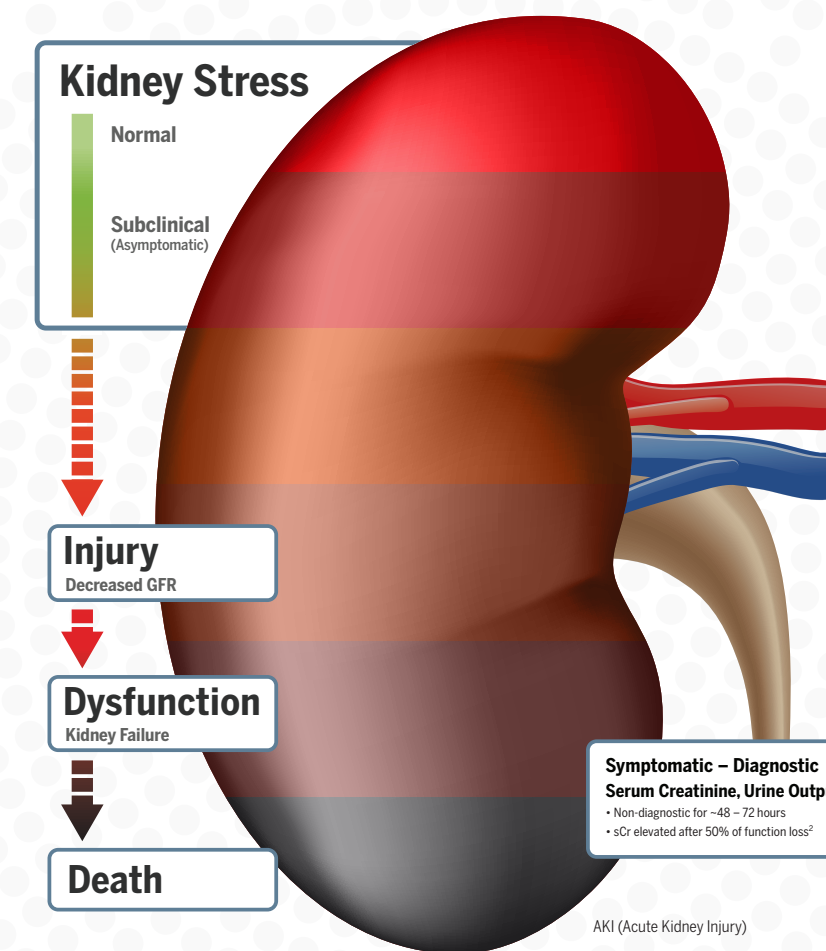
Dynamic measurement of the risk for acute kidney injury (AKI) provides the opportunity to initiate timely and appropriate preventive therapies and monitoring in the ICU, for those patients who are judged to be at high risk of AKI.<sup>14</sup>

### References:

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4. Uchino S, Kellum JA, Bellomo R et al. Acute renal failure in critically ill patients: A multinational, multicenter study. *JAMA*. 2005; 294:813-818.
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13. KDIGO. *Kidney Inter, Suppl*. 2012;2:1-138.
14. Bihorac A. *Nephron*. 2015; 131(2): 118-122. doi:10.1159/000439387 9.

## VIDAS® NEPHROCHECK® [TIMP-2 • IGFBP-7]

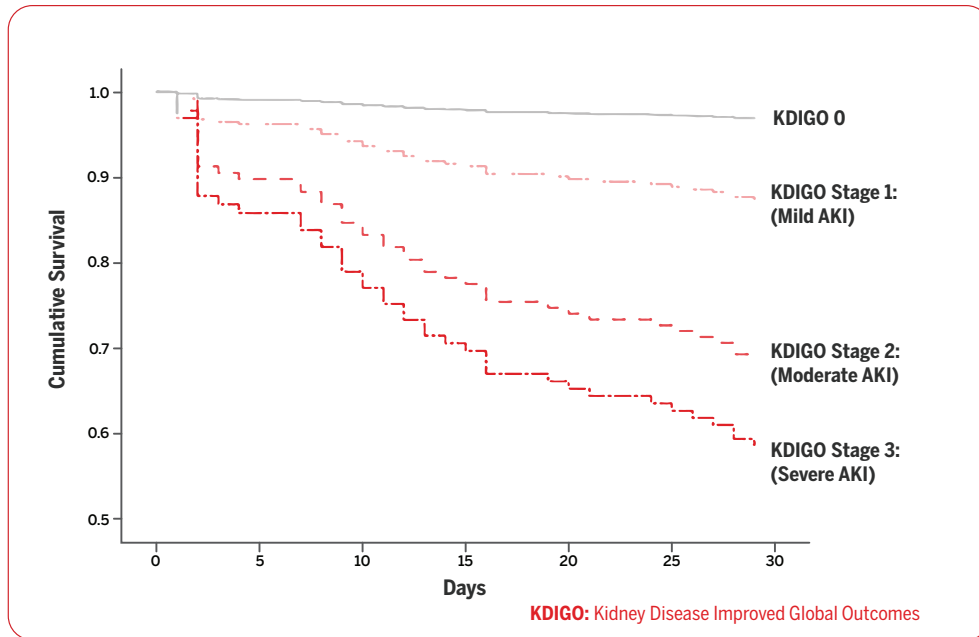
## Hospital Costs and Mortality Strongly Correlate with Severity of AKI.



**Know Earlier. Intervene Sooner. Avoid AKI.**

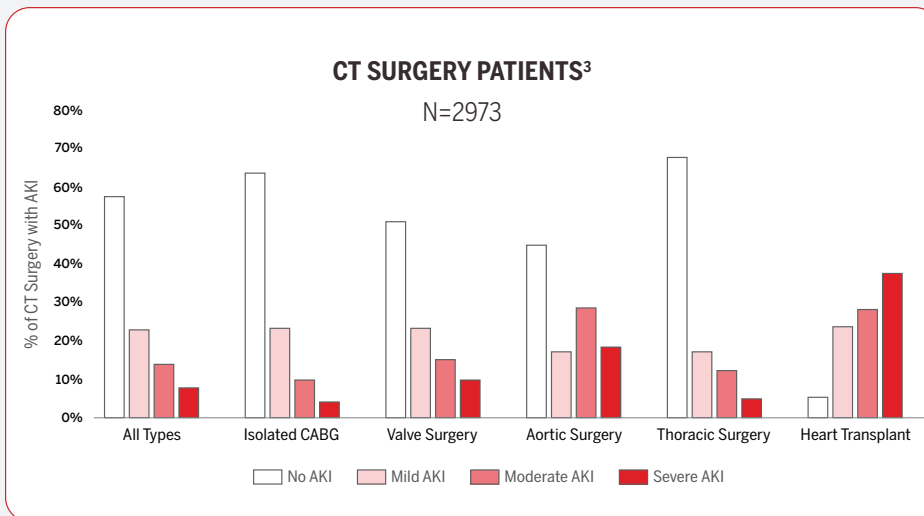
### Post-Operative Acute Kidney Injury (AKI) Increases 30-Day Mortality Following Cardiac Surgery ( $p=0.001$ )<sup>5</sup>

- Of the 918 patients studied, 391 (43%) had post-operative AKI
- Patients in every stage of AKI showed progressive increase in 30-day mortality rates, cardiopulmonary bypass duration and ICU length of stay<sup>5,6,7</sup>



### AKI IS PREVALENT AND DEADLY

#### Acute Kidney Injury (AKI) is Prevalent in CT Surgery

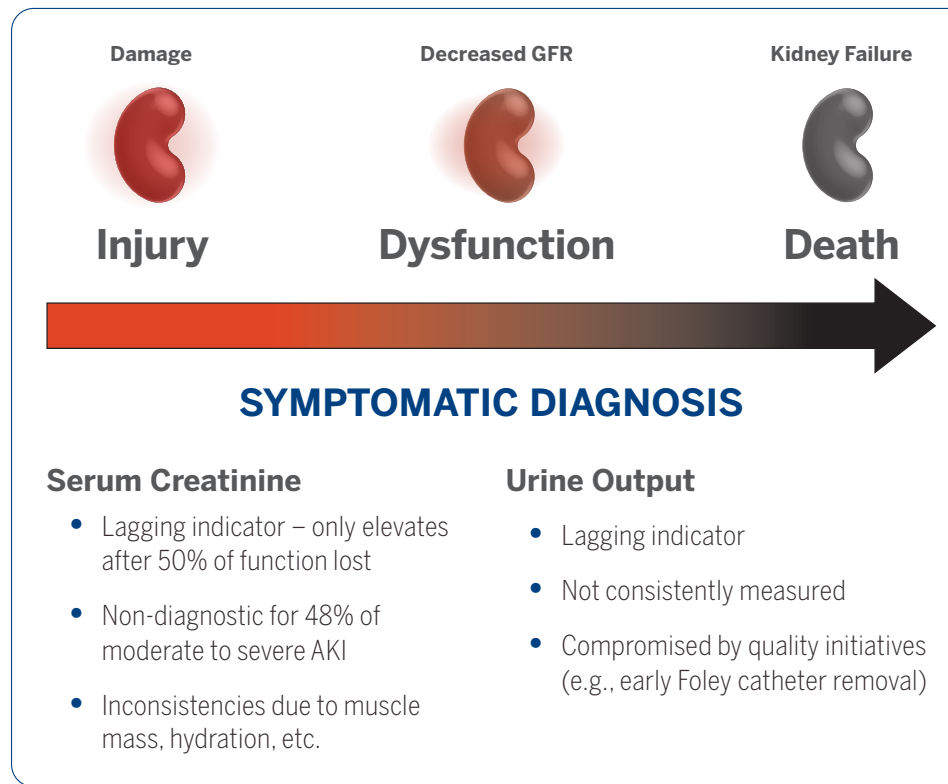


#### AKI Following Cardiac Surgery is Common

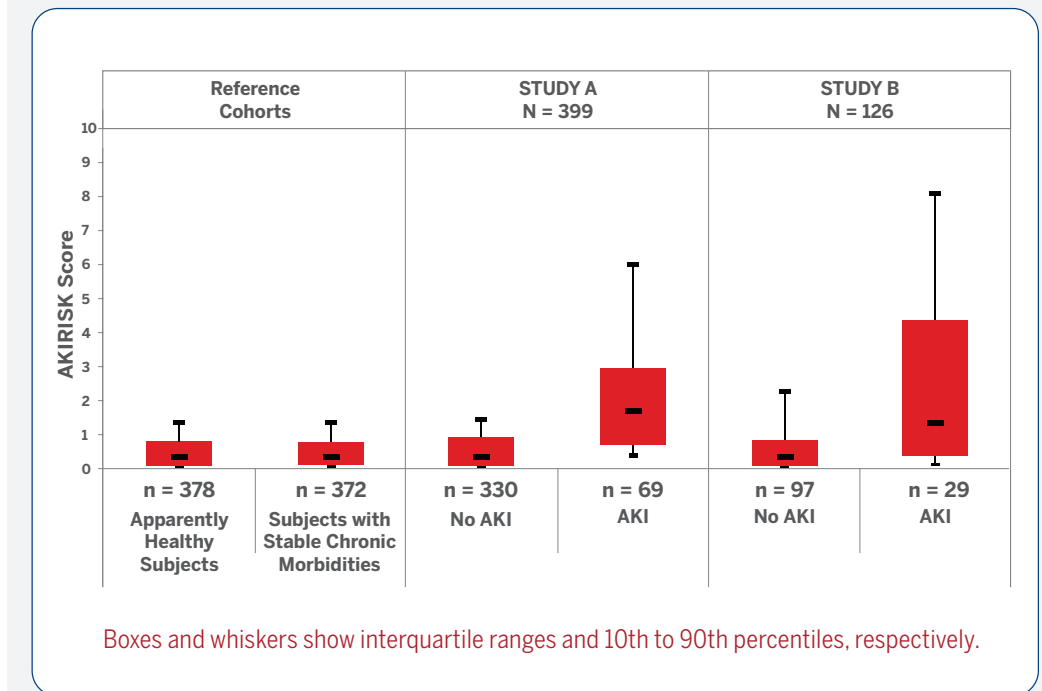
- Cardiovascular surgery is the second most common cause for development of acute kidney injury (AKI) in critically ill patients.<sup>4</sup>

### TRADITIONAL DIAGNOSTIC TOOLS: LAGGING INDICATOR OF AKI<sup>9</sup>

#### The Diagnosis of AKI Relies on Functional Biomarkers – Serum Creatinine and Urine Output

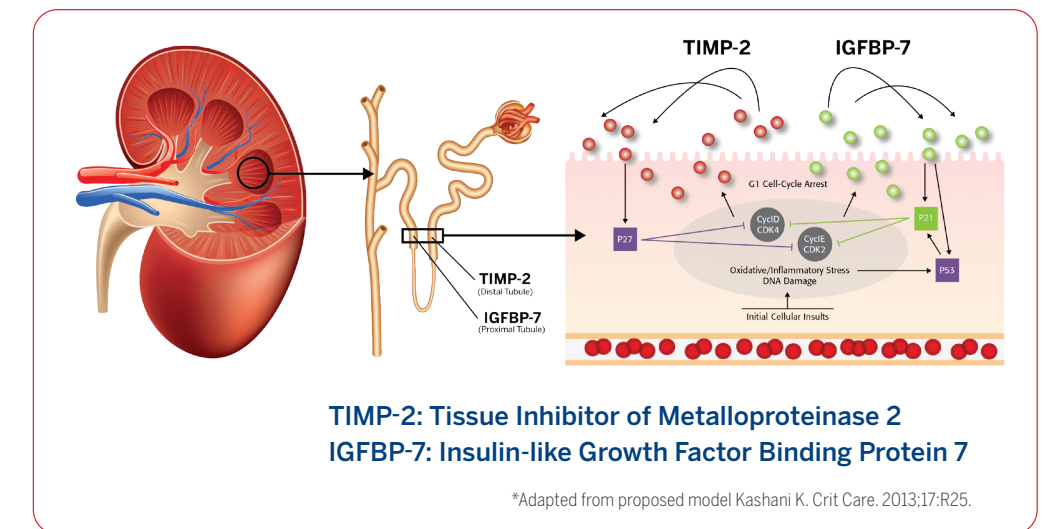


### VIDAS® NEPHROCHECK® Significantly Discriminates AKI from No-AKI ( $p < 0.05$ )<sup>8</sup>



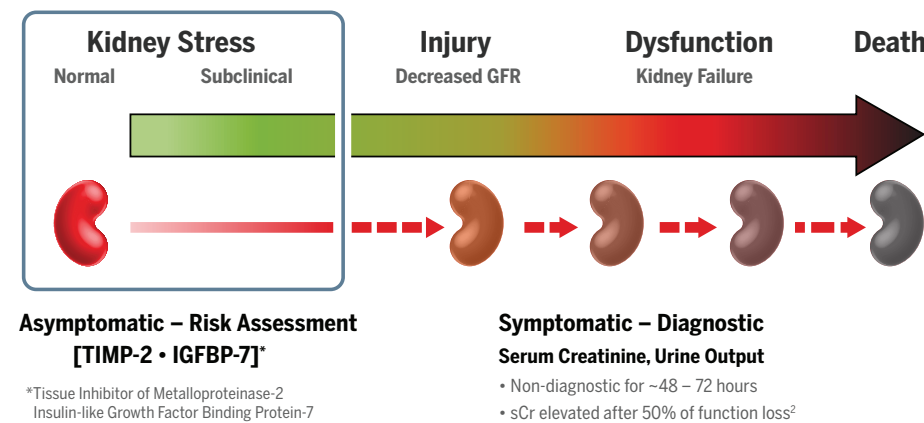
### BIOMARKERS [TIMP-2 • IGFBP-7]

#### Biomarkers Produced During Kidney Stress Before Significant Damage Occurs<sup>8,11,12</sup>



- Expressed by tubular cells in response to stress
- Results in G1 cell cycle arrest, presumably to prevent cells with possible damage from dividing
- Injured cells spread the alarm to nearby cells via TIMP-2 and IGFBP-7

### VIDAS® NEPHROCHECK® Early Risk Assessment of AKI<sup>8, 10, 11</sup>



Scan for More Information.



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