

# UC Irvine

## UC Irvine Previously Published Works

### Title

ASSOCIATION OF SERUM SODIUM LEVELS WITH MORTALITY IN NON-DIALYSIS DEPENDENT CHRONIC KIDNEY DISEASE

### Permalink

<https://escholarship.org/uc/item/2gc5k8tj>

### Journal

AMERICAN JOURNAL OF KIDNEY DISEASES, 59(4)

### ISSN

0272-6386

### Authors

Faridani, Vince

Lu, Jun L

Kalantar-Zadeh, Kamyar

et al.

### Publication Date

2012

### Copyright Information

This work is made available under the terms of a Creative Commons Attribution License, available at <https://creativecommons.org/licenses/by/4.0/>

Peer reviewed

A34

Am J Kidney Dis. 2012;59(4):A1-A92

78

ASSOCIATION OF SERUM SODIUM LEVELS WITH MORTALITY IN NON-DIALYSIS DEPENDENT CHRONIC KIDNEY DISEASE Vince Faridani<sup>1,4</sup>, Jun L Lu<sup>2</sup>, Kamyar Kalantar-Zadeh<sup>3</sup>, Csaba P Kovesdy<sup>1,4</sup>, <sup>1</sup>Virginia Tech Carilion School of Medicine, Roanoke, VA. <sup>2</sup>Salem Research Institute, Salem VA. <sup>3</sup>Harbor-UCLA, Torrance, CA. <sup>4</sup>Salem VA Medical Center, Salem VA. The outcomes associated with hyponatremia in patients with non-dialysis dependent CKD (NDD-CKD) are unclear. We examined the association between serum sodium and all-cause mortality in 1,236 males (age  $68 \pm 11$ ) with CKD stage 1-5 (eGFR  $37 \pm 17$ ). Associations of time-varying outpatient serum sodium with mortality were examined in Cox models with adjustment for socio-demographics, comorbidities, labs and medication use. Nonlinear associations were explored by using cubic splines. Lower serum sodium was linearly associated with increased mortality (figure 1). A 10 mEq/L lower serum sodium was associated with a multivariable adjusted hazard ratio of all cause mortality (95% CI) of 1.60 (1.11-2.29),  $p=0.01$ . Hyponatremia is associated with increased mortality in patients with moderate and advanced NDD-CKD. Interventional trials are needed to determine if correction of hyponatremia can result in improved outcomes in this population.

