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PRE-TRANSITION SERUM SODIUM IS ASSOCIATED WITH MORTALITY POST-TRANSITION TO DIALYSIS

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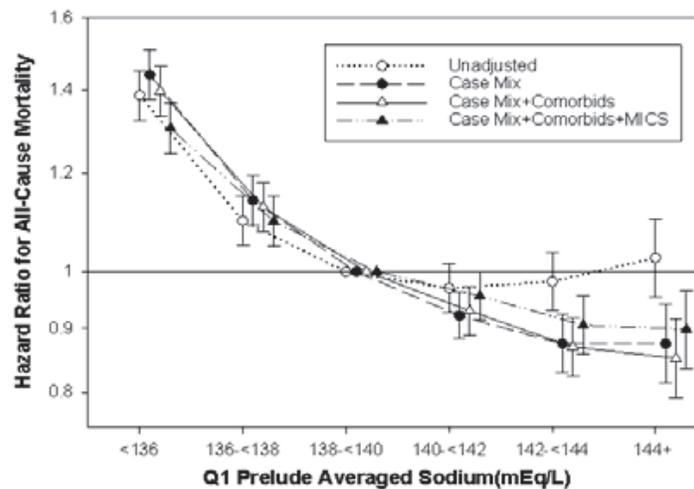
**PRE-TRANSITION SERUM SODIUM IS ASSOCIATED WITH MORTALITY POST-TRANSITION TO DIALYSIS:**

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In patients on maintenance hemodialysis (HD) lower serum sodium has been linked with higher mortality. However the association of lower serum sodium in the time prior to transition to dialysis with post-dialysis outcomes is unknown. We thereby investigated the association of pre-transition serum sodium with post-transition mortality in patients transitioning to dialysis.

This retrospective analysis included 32,257 veterans transitioning to dialysis during 2007-2015. Odds ratios were used to calculate predictors of low (<140 mEq/L) vs high (≥140 mEq/L) sodium levels and adjusted for demographics and comorbidities. Associations of pre-transition sodium levels with all-cause mortality (over 7 years follow up) were examined using Cox model and adjusted for demographics (Case Mix), comorbidities (Cormobids) and inflammation-malnutrition biomarkers (MICS).

Figure: Association of pre-transition sodium with post-transition all-cause mortality



The odds of having low sodium decreased by (odds-ratio [OR]) 0.8 (95% Confidence Interval (95%CI) 0.78, 0.82) for every 10 year increase in age and by (OR) 0.63 (95% 0.61, 0.66) for every 1g/dL increase in serum albumin. In contrast, Hispanic ethnicity and depression increased the odds of having low sodium levels by (OR 1.39 (95%CI 1.22, 1.6) respectively (OR) 1.09 (95%CI 1.03, 1.14). In a fully adjusted Cox model, lower sodium levels were associated with higher all-cause mortality compared to the reference group (sodium 138-140 mEq/L), while higher sodium levels were related to improved survival.

Pre-transition serum sodium levels were inversely associated with post-transition mortality in veteran patients. Future studies should investigate appropriate management of serum sodium levels in the pre-transition period for patients transitioning to dialysis, and whether associated are mediated by patient volume overload.