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Publication Date

2019

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Peer reviewed

Abstract 13155: Risk of ASCVD and Non-ASCVD Hospitalizations for Triglycerides Across CKD Stages Among 2 Million US Veterans

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Abstract

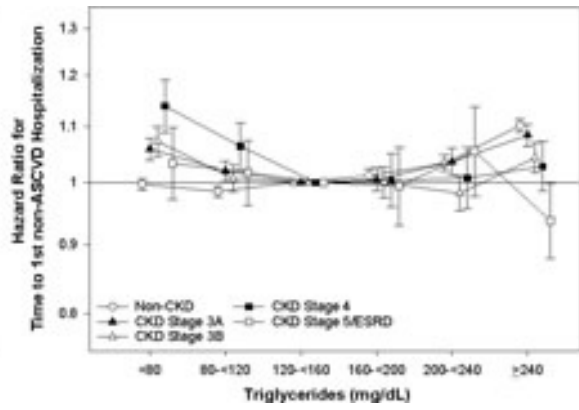
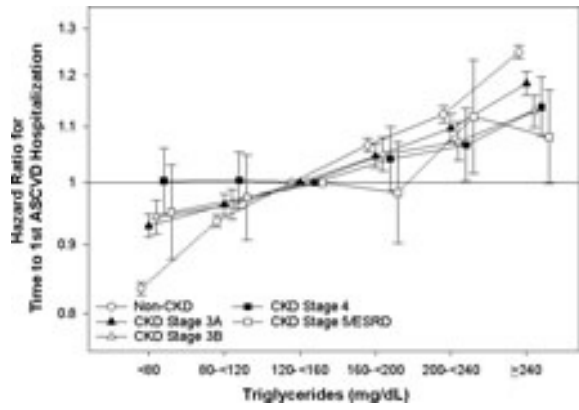
Introduction: High triglycerides (TG) are a risk factor for atherosclerotic cardiovascular disease (ASCVD).

Studies in Chronic kidney disease (CKD) patients have shown TG-mortality associations were attenuated. Yet, the association of TG with ASCVD or non-ASCVD events is unclear among CKD patients.

Methods: We examined 2,086,879 US veterans with a TG measurement in 2004-2006. ASCVD or non-ASCVD hospitalizations were identified with primary admission codes. The associations of TG with time to first ASCVD or non-ASCVD hospitalization were separately evaluated across CKD stages using Cox proportional hazard models with censoring at death or lost-to-follow-up. Adjustments included demographics, comorbidities, and laboratory levels.

Results: Patients were 64+/-14 (mean+/-SD) years old with a median [IQR] TG of 129[88,193] mg/dL and estimated glomerular filtration rate of 76[61,91] mL/min/1.73m². There was a linear association for TG and ASCVD hospitalization risk in non-CKD, and CKD stage 3A-3B patients. Yet, low TG<120, compared to TG 120-<160 mg/dL were not associated with a lower risk of ASCVD hospitalization in CKD stage 4. High TG>=200 were associated with a faster time to ASCVD hospitalization for all stages, yet the strength of the relationship incrementally declined across higher CKD stages. A decline in estimates was observed for high TG and non-ASCVD hospitalizations, where estimates were below the null for stage 5/end-stage renal disease. While low TG was not associated with risk of a non-ASCVD hospitalizations in the non-CKD group, risk of non-ASCVD hospitalizations were higher in CKD stages 3A-4.

Conclusions: The relationship of high TG with time to an ASCVD and non-ASCVD hospitalization incrementally declined with progressing CKD. Further studies are needed to investigate the mechanisms in which TG acts on ASCVD vs non-ASCVD events among CKD patients as to better understand and direct patient treatment..



Triglycerides; Kidney; Epidemiologic methods