**Ethnic Differences in 25-Year Risk of Incident Chronic Kidney Disease among People with Type 2 Diabetes in New Zealand**

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**Background**

Ethnic differences exist in the risk of end stage kidney disease in type 2 diabetes (T2DM) . We compared the risk of developing CKD stages II-V between Māori, Pasifika, and NZ Europeans (NZE) with T2DM in NZ over a 25-year period.

**Methods**

We linked a large primary care audit program to national registration databases. Those with CKD II-V were excluded. A tapered matching method was used to balance potential confounders. Comparative cohorts were formed separately between NZE and Māori, and between NZE and Pasifika. Cox regression tested for ethnic group differences in future risk of any and each CKD stage between 1994 and 2018.

**Results**

Compared with NZE (n=2028), the hazard ratios (HR) for developing any CKD, CKD stages II thru V for Māori (n=2215) were 1.18 (95% CI: 0.99-1.41) , 1. (0.91-1.32) , 1.70 (1.19-2.43) , 3.93 (2.16-7.14) and 3.74 (1.74-8.05) respectively. The HR for Pasifika (n=3101) compared with NZE (n=2474) for developing any CKD, CKD stages II thru V were 1.31 (1.09-1.57) , 1.26 (1.05-1.52) , 1.71 (1.14-2.57) , 3.75 (1.40-10.05) and 4.96 (1.56-15.75) respectively. Figures A-D show the risks of CKD II and CKD IV/V among NZE (blue) and Māori/Pasifika over time.

**Conclusion**

Significant ethnic differences exist in the risk of progressing to each stage of CKD (especially stage V) among people with T2DM in NZ. Research into the mechanisms underlying these differences are warranted.

**Figure-1**. Cumulative risk of stage II and IV/V of chronic kidney disease over 25 years in European, Māori, and Pasifika patients with type 2 diabetes

