

Hellena Hailu Habte-Asres

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Hellena Hailu Habte-Asres is a Doctoral Research Fellow in the Faculty of Nursing, Midwifery, at King's College London and a Clinical nurse specialist in diabetes at Royal Free London NHS Foundation Trust. In 2008, Hellena received her first degree in Adult Nursing from City University in London. She graduated with Master Degree in Advanced Practice Diabetes Care from King's College London University in 2013. Hellena is a Non-medical prescriber. She has extensive experience providing specialist diabetes nursing care in inpatient and outpatient settings. Over the years she has set up a nurse-led renal diabetes clinic, led and successfully secured NHS England bid for Diabetes inpatient nursing project for Northcentral London. In 2018, she was awarded a FEND Doctoral Fellowship to undertake a Ph.D. research and training at King's College London. She has been awarded the Montague station research scholarship three years in a row to support her Ph.D. research project. Her clinical and research interest include diabetes kidney disease.

ABSTRACT

Renal Disease Progression and Glycaemic Variability

Diabetes is the leading cause of chronic kidney disease (CKD). Diabetes patients with co-morbid CKD are a high-risk population, with an accelerated rate of progression to end-stage kidney disease (ESKD) and higher mortality compared to people without diabetes. Treating advanced kidney disease in people with diabetes is very costly and is consuming a growing proportion of NHS resources. Hence being able to identify modifiable risk factors for deterioration in kidney function in people with diabetes may help identify more targeted approaches to preventing CKD progression, reducing the number of people with diabetes who develop ESKD and require renal dialysis.

Therefore, we undertook a study to explore the association between CKD progression and patient-level factors including glycaemic level, and glycaemic variability. Our study is a 10-year nationwide retrospective cohort study using Clinical Practice Research Datalink (CPRD) linked to Hospital Episodes Statistics (HES) and Index of Multiple Deprivation data (IMD). CPRD is one of the largest anonymised databases of routinely collected primary care health records in the world. It represents around $\approx 7\%$ of the UK general population the CPRD population is representative of the general UK population in terms of age, gender, ethnicity. Preliminary findings suggest that that glycaemic variability is significantly associated with progression to ESKD in people with diabetes and comorbid kidney disease. Our findings provide evidence that long-term glycaemic variations are good indicators for estimating progression risk in people with diabetes and comorbid established kidney disease.