**COMPARING GLYCAEMIC BENEFITS OF ACTIVE VERSUS PASSIVE LIFESTYLE INTERVENTION IN KIDNEY ALLOGRAFT RECIPIENTS (CAVIAR): AN OVERVIEW AND UPDATE OF STUDY RECRUITMENT**

**Background:** Transplant-associated hyperglycaemic occurs in over 85% of kidney transplant recipients in the immediate post-operative period and up to 39% of kidney allograft recipients will develop post-transplantation diabetes mellitus (PTDM) within their first year after transplantation. Preventing PTDM is important to attenuate risk for diabetes-related morbidity, mortality and cost. While lifestyle modification is widely recommended to kidney allograft recipients post-transplantation, there is no evidence that it can attenuate abnormal glucose metabolism. The aim of our study is to compare whether a pro-active versus passive interventional approach to modify lifestyle is associated with superior outcomes post kidney transplantation.

**Method/design:** CAVIAR is prospective, single-centre, open-label, randomised controlled trial to compare the efficiency of active versus passive lifestyle intervention among kidney transplant recipients (clinicaltrials.org: NCT02233491). Our recruitment target was 130 stable, non-diabetic kidney transplant recipients between 3 and 24-months post kidney transplantation. Active intervention is delivered by two dietitians trained in cognitive behaviour intervention by a Consultant Psychiatrist. Passive intervention comprised standard care alone (i.e. leaflet advice and clinical consultations). Participants are followed-up face-to-face for 6 months for the primary outcome (change in disposition index – a surrogate for glucose metabolism derived from insulin sensitivity x insulin secretion) and remotely for five years for secondary outcomes (including cardio-metabolic parameters, assays and clinical outcomes). Recruitment started in July 2015 and was completed in December 2017; from 139 patients recruited we randomised 130 using random block permutations into active (n=66) versus passive (n=64) lifestyle intervention. Patients of Black, Asian, Minority Ethnic (BAME) ethnicity comprised 41 (32%) of our study cohort. Of the 130 patients randomised who commenced the study we have had 26 (20%) withdraw. The main reason cited was the inability to attend all study visits (although travel expenses are reimbursed and, where possible, study visits combined with routine clinical visits to encourage adherence to study protocol). However, the original power calculation had factored for a 20% dropout and therefore we retain 95% power to detect a 16% change in our primary outcome. The final study recruit will commence the main study in February 2018 and will complete six-month follow up by August 2018. At time of abstract presentation, 78 recipients have completed their six-month follow. We anticipate primary outcome data to be reported before the end of 2018.

**Discussion:** CAVIAR is the first study to explore a lifestyle intervention study post kidney transplantation to improve glucose metabolism, utilising a pragmatically designed cognitive behaviour intervention approach to encourage active lifestyle intervention. This study will report its primary outcome data late in 2018, with its underlying methodology shared with healthcare professionals to encourage post-transplantation lifestyle modifications if deemed beneficial. However, the underlying cognitive behaviour theory has the potential for translation across many settings in nephrology where behaviour change is desired.