**Effects of SGLT2 inhibition on metabolic, cardiac and renal outcomes in heart transplant recipients (EMPA-HTx study): interim baseline characteristics**  
  
Background: Sodium glucose co-transporter 2 inhibitors (SGLT2i) may have positive effects on heart transplant (HTx) complications of hyperglycaemia and renal impairment. SGLT2i have been observed to improve metabolic parameters in patients with diabetes following HTx, but have not been evaluated prospectively. The EMPA-HTx study is the first randomised placebo controlled trial (RCT) of SGLT2i in HTx recipients with primary outcome of glycaemia and secondary outcomes of renal function and cardiac fibrosis. Trial registration: ACTRN12622000978763. Funding received from the Australian Diabetes Society and St Vincent’s Clinic Foundation. The trial is ongoing and started recruitment in 2022.

Aims: Interim analysis of baseline characteristics and study progress.

Methods: RCT assessing empagliflozin 10 mg daily versus placebo (1:1 randomisation) in recent HTx recipients. Study medication commencement at approximately 6-8 weeks post-HTx, with follow up until 12 months after HTx.

Results: Of 140 HTx recipients screened, 42 commenced the trial; 65 did not meet inclusion criteria and 33 declined. Mean age was 54 ± 12 years and mean body mass index was 28 ± 5 kg/m2; 34 (80%) were male and 11 (26%) had pre-HTx diabetes. Mean time to commencement of trial medication was 62 ± 29 days, at which time 22 (52%) were on insulin for hyperglycaemia. Baseline mean fasting glucose was 6.6 ± 3.3 mmol/L, with HbA1c of 6.2 ± 1.3 %, eGFR of 64 ± 19 mL/min/1.73m2, total cholesterol of 5.0 ± 1.0 mmol/L and triglycerides of 1.8 ± 0.8 mmol/L. To date, 28 participants have completed the study and 5 are ongoing. There have been 8 discontinuations for the following reasons: 2 deaths, 1 adverse related event (Fornier’s gangrene), 4 chronic kidney disease progression, and 2 withdrawals.

Conclusions: This study will determine the efficacy and safety of SGLT2i in HTx recipients, for the first time.