There is no safety signal for glycemic control in dialysis patients except for hemoglobin A1c ≥10%.

It is not clear if hemoglobin A1c levels between 7 and 10% are associated with poor outcomes compared to hemoglobin A1c values <7%.

Clinical trials to examine the benefit of glycemic control in CPD patients are indicated.

In this large national cohort of diabetic CPD patients, hemoglobin A1c ≥10% appears associated with 50% increased mortality compared to hemoglobin A1c 6-7%.

Hemoglobin A1c values < 10% did not appear to be associated with worse outcomes.

There is mixed data about the mortality predictability hemoglobin A1c in diabetic hemodialysis patients. In chronic peritoneal dialysis (CPD) patients, the association may be confounded by glucose loading in PD fluid.

Hemoglobin A1c was then categorized into 7 a priori selected groups of <5%, ≥10% and 1% increments in-between.

A U-shaped trend with death hazard ratios (HR) was noted. Taking A1c 6-6.9% as the reference, A1c ≥10% had a 5-year death HR (and 95% confidence interval [CI]) of 1.3 (1.1-1.6), 1.5 (1.2-1.9) and 1.5 (1.2-1.9) representing the unadjusted, case-mix (gender, age, race, ethnicity, dialysis vintage, type of insurance, 10 comorbid conditions, smoking residual renal function and Kt/V) adjusted and additional malnutrition-inflammation complex syndrome (MICS) (BMI, serum albumin, ferritin, creatinine, phosphorus, calcium, bicarbonate, TIBC, WBC, and lymphocyte percentage and blood hemoglobin), adjusted model, respectively (see Figure 1).