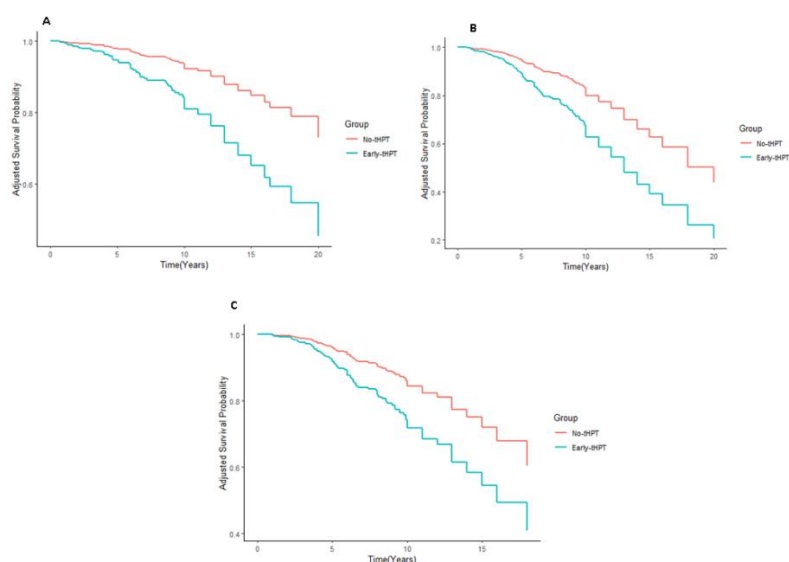


Supplementary Figure 1 The unadjusted Kaplan-Meier survival curve of death censored graft survival and recipient survival in recipients with post-transplant tertiary hyperparathyroidism in comparison to recipients without post-transplant tertiary hyperparathyroidism. A: Death censored graft survival; B: Recipient survival. Death censored graft survival and recipient survival in recipients with post-transplant tertiary hyperparathyroidism (PT-tHPT) compared to those without PT-tHPT. The figure shows a significantly lower graft and recipient survival in recipients who experience PT-tHPT. The median death-censored survival in both groups was above 20 years whereas the median recipient survival in patients who experienced PT-tHPT was 16 years compared to more than 20 years for those without tertiary hyperparathyroidism. tHPT: Tertiary hyperparathyroidism.



Supplementary Figure 2 Sensitivity analysis. A: Death censored graft survival (DCGS); B: All-cause graft survival; C: Recipient survival. There is a significant survival advantage in the death censored graft survival, all-cause graft survival and

recipient survival in patients with no post-transplant tertiary hyperparathyroidism (PT-tHPT) compared to recipients who experienced PT-tHPT within the first 3 years of transplantation. Cox proportional hazard survival curves of the effect of PT-tHPT on DCGS, all-cause graft survival and recipient survival in patients who developed tertiary hyperparathyroidism within the first 3 years of transplantation compared to those who did not experience PT-tHPT within the first 3 years. tHPT: Tertiary hyperparathyroidism.

Supplementary Table 1 Variance inflation factor for predictor variables

Variable	GVIF	Variance inflation factor (degree of freedom)	Adjusted-GVIF
Age (per decade)	1.1	1	1.1
Ethnicity	1.0	3	1.0
Total ischemia time	1.0	1	1.0
Dialysis vintage	1.0	1	1.0
History of acute rejection	1.1	1	1.0
Estimated glomerular filtration rate slope	1.1	1	1.1
Median pretransplant calcium (per decile increase)	1.0	1	1.0
Median pretransplant parathyroid hormone (per decile increase)	1.1	1	1.1
Smoker	1.0	1	1.0

Generalized variance inflation factors (GVIF) values assess multicollinearity among predictor variables in the multivariable logistic regression model. Adjusted-GVIF ($GVIF^{1/(2 \times \text{degree of freedom})}$) value below 2.0 suggests low multicollinearity and acceptable variable independence. No concerning collinearity was observed in this model.

GVIF is an extension of the standard variance inflation factor. Adjusted-GVIF is used for models that include categorical variables with more than 2 levels. It adjusts GVIF to be comparable across variables with different numbers of categories. Adjusted-GVIF below 2 is usually considered acceptable. GVIF: Generalized variance inflation factors.