

# PREDICTORS OF DISEASE PROGRESSION IN SUBJECTS WITH STAGE 3 OR 4 CKD

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Evidence suggests that approximately 20% of patients with stage 3 and stage 4 CKD experience decreases in renal function resulting in progression to advanced CKD stages within 1 year. The objective of this study was to identify predictors of CKD progression. Patients from a large nephrology practice in the United States with at least one year of data between July 1, 2004 and June 30, 2006, with either stage 3 or 4 CKD were included in the analyses. CKD stage and disease progression were determined using the MDRD equation. Patient's baseline PTH, calcium, and phosphorus levels, baseline GFR, age, diagnosis of cardiovascular disease (CVD), and diagnosis of diabetes were included as independent variables in a multiple regression model with change in patient's GFR from baseline as a dependent variable. A total of 879 subjects were included in the analysis. The participant population was 53.8% male, 84.9% Caucasian, with a mean age of 69.3 years. Progression to a more advanced stage of CKD was significantly associated with patient's baseline PTH level ( $P=0.002$ ), patient's age ( $P=0.018$ ), CVD diagnosis ( $P=0.027$ ), and baseline GFR ( $P=0.006$ ) (Table). These data suggest a relationship between intact PTH (iPTH) and progression of CKD independent of a variety of other variables. Further examination of the association between iPTH levels and serum mineral levels with CKD progression is warranted.

Independent Variables	Beta estimate	P-value
Baseline iPTH	-0.0007	0.002*
Baseline Calcium	0.0031	0.928
Baseline Phosphorus	-0.0153	0.630
Age	0.0035	0.018*
Any CV Disease	0.0867	0.027*
Diabetes	-0.0631	0.104
Baseline GFR	-0.0054	0.006*

\* $P < 0.05$