Supplementary Table S4. Sensitivity analysis of association of patient and tumor characteristics with RCC subtype, using different comorbidity definitions

		Comorbidity diagnosis at least 2 years prior to RCC diagnosis		Minimum of 2 comorbidity diagnosis codes prior to RCC diagnosis	
		Papillary vs Clear cell	Chromophobe vs Clear cell	Papillary vs Clear cell	Chromophobe vs Clear cell
		OR (95% CI)	OR (95% CI)	OR (95% CI)	OR (95% CI)
Race and ethnicity	Asian American /Pacific Islander	**0.58 (0.49-0.68)**	**0.77 (0.64-0.94)**	**0.55 (0.47-0.63)**	**0.77 (0.65-0.91)**
	Latino	**0.40 (0.35-0.45)**	**0.69 (0.61-0.79)**	**0.37 (0.34-0.42)**	**0.71 (0.64-0.79)**
	NL Black	**4.00 (3.57-4.48)**	**1.73 (1.43-2.09)**	**3.96 (3.58-4.38)**	**1.80 (1.53-2.12)**
	NL White	Reference	Reference	Reference	Reference
Sex	Female	**0.51 (0.46-0.55)**	**1.42 (1.28-1.56)**	**0.51 (0.47-0.55)**	**1.42 (1.30-1.53)**
	Male	Reference	Reference	Reference	Reference
Age at diagnosis, years	<50	**0.73 (0.64-0.83)**	**1.51 (1.30-1.75)**	**0.72 (0.65-0.81)**	**1.59 (1.40-1.80)**
	50-59	**0.89 (0.80-0.99)**	1.01 (0.88-1.17)	**0.87 (0.79-0.95)**	1.03 (0.91-1.16)
	60-69	Reference	Reference	Reference	Reference
	70-79	1.01 (0.91-1.12)	1.10 (0.95-1.27)	1.04 (0.95-1.14)	1.08 (0.95-1.22)
	80+	1.07 (0.94-1.23)	**1.23 (1.02-1.48)**	1.05 (0.93-1.19)	**1.21 (1.02-1.43)**
Kidney disease and hypertension	ESRD	**2.54 (2.12-3.04)**	0.91 (0.65-1.26)	**2.59 (2.19-3.05)**	0.86 (0.64-1.17)
	CKD, not end-stage	**1.58 (1.29-1.93)**	**0.66 (0.45-0.96)**	**1.49 (1.32-1.69)**	**0.78 (0.63-0.95)**
	HTN without kidney disease	**1.19 (1.10-1.30)**	**0.87 (0.77-0.98)**	**1.25 (1.16-1.36)**	1.00 (0.90-1.11)
	No kidney disease and no HTN	Reference	Reference	Reference	Reference
Diabetes	Diabetes	**0.58 (0.52-0.65)**	**0.57 (0.49-0.68)**	**0.58 (0.52-0.64)**	**0.54 (0.46-0.63)**
	No diabetes	Reference	Reference	Reference	Reference
Neighborhood SES	1 (lowest nSES)	**0.80 (0.70-0.91)**	**0.62 (0.52-0.73)**	**0.85 (0.75-0.95)**	**0.67 (0.58-0.78)**
	2 (lower-middle nSES)	**0.82 (0.73-0.92)**	**0.66 (0.57-0.77)**	**0.87 (0.78-0.96)**	**0.70 (0.62-0.80)**
	3 (middle nSES)	**0.83 (0.74-0.93)**	**0.60 (0.51-0.69)**	**0.83 (0.75-0.92)**	**0.66 (0.58-0.75)**
	4 (upper-middle nSES)	0.91 (0.82-1.02)	**0.72 (0.63-0.83)**	0.93 (0.85-1.03)	**0.78 (0.69-0.88)**
	5 (highest nSES)	Reference	Reference	Reference	Reference
Year of diagnosis	2005-2010	Reference	Reference	Reference	Reference
	2011-2015	1.03 (0.95-1.11)	**1.12 (1.01-1.23)**	**1.09 (1.02-1.17)**	**1.17 (1.07-1.27)**

Abbreviations: OR = odds ratio; CI = confidence interval; NL = Non-Latino; ESRD = end-stage renal disease; CKD = chronic kidney disease; HTN = hypertension; SES = socioeconomic status.