

Supplementary table 1 Sensitivity analysis: Risk of renal function decline by visit-to-visit variability in TC used as a time-dependent covariate in the model.

HR for per 1 Standard Deviation Increase of Variability in TC			
Visit-to-Visit TC Variability	Model	HR (95% CI)	p-value
SD TC	Crude model	1.159(1.089~1.233)	<0.001
	Model 1	1.120(1.044~1.202)	0.002
	Model 2	1.110(1.032~1.193)	0.005
	Model 3	1.111(1.033~1.195)	0.005
ASV TC	Crude model	1.150(1.076~1.229)	<0.001
	Model 1	1.100 (1.019~1.188)	0.014
	Model 2	1.088(1.005~1.178)	0.038
	Model 3	1.087(1.003~1.177)	0.041
CV TC	Crude model	1.138(1.066~1.215)	<0.001
	Model 1	1.107 (1.027~1.194)	0.008
	Model 2	1.111(1.031~1.196)	0.006
	Model 3	1.112(1.032~1.198)	0.005
VIM TC	Crude model	1.141 (1.069~1.218)	<0.001
	Model 1	1.120(1.030~1.195)	0.006
	Model 2	1.111 (1.032~1.196)	0.005
	Model 3	1.112(1.033~1.197)	0.005

The model 1 was adjusted for age, sex, body mass index, smoking, regular exercise, diabetes mellitus; model 2 was further adjusted for systolic blood pressure, fasting blood-glucose, use of antihypertensive agent and mean follow-up TC; model 3 was further adjusted for use of lipid-lowering agents and estimated glomerular filtration rate (eGFR).

Abbreviations: TC, total cholesterol; CI, confidence interval; SD, standard deviation; ASV, the average successive variability; CV, the coefficient of variation; VIM, variability independent of the mean.