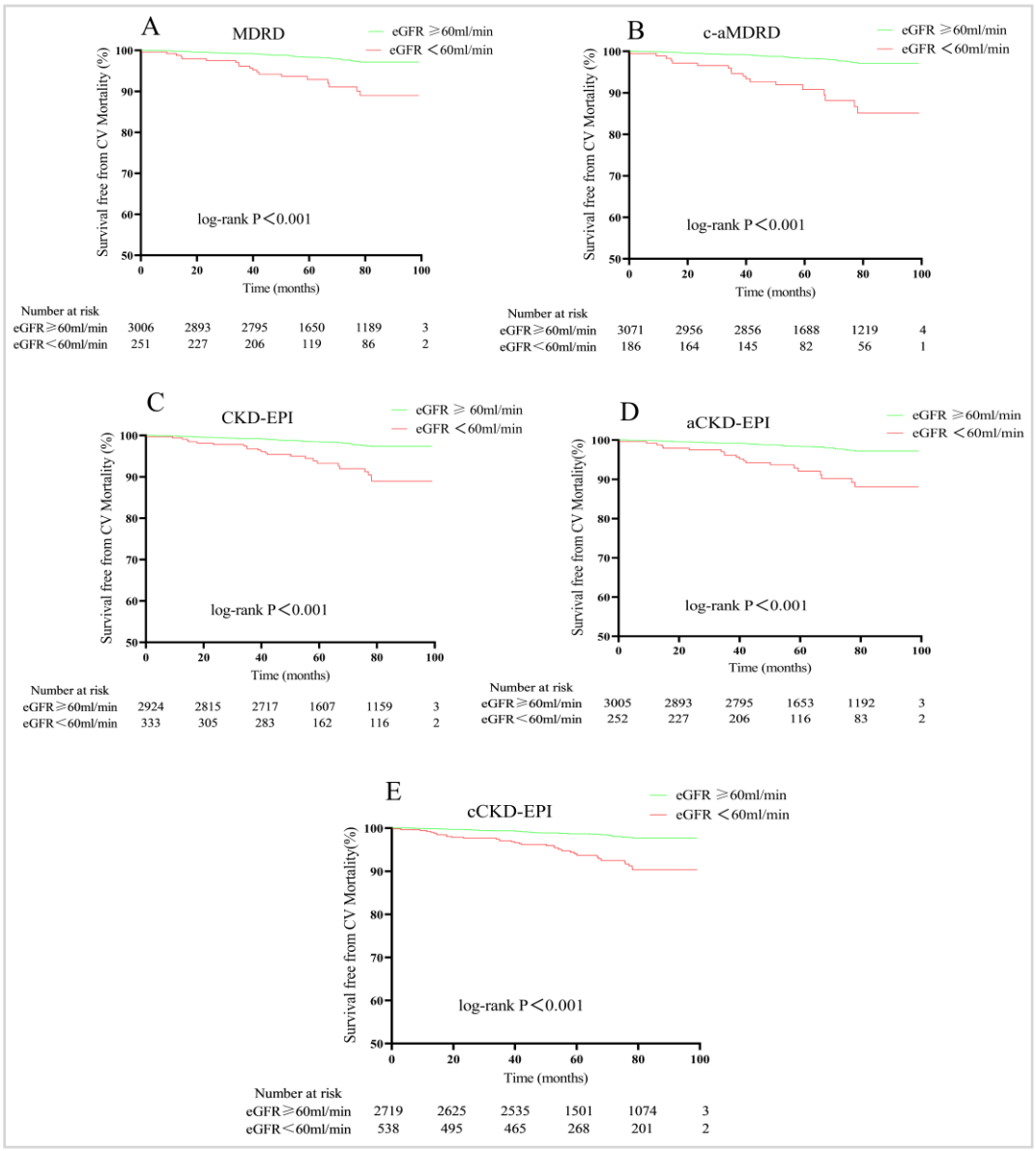
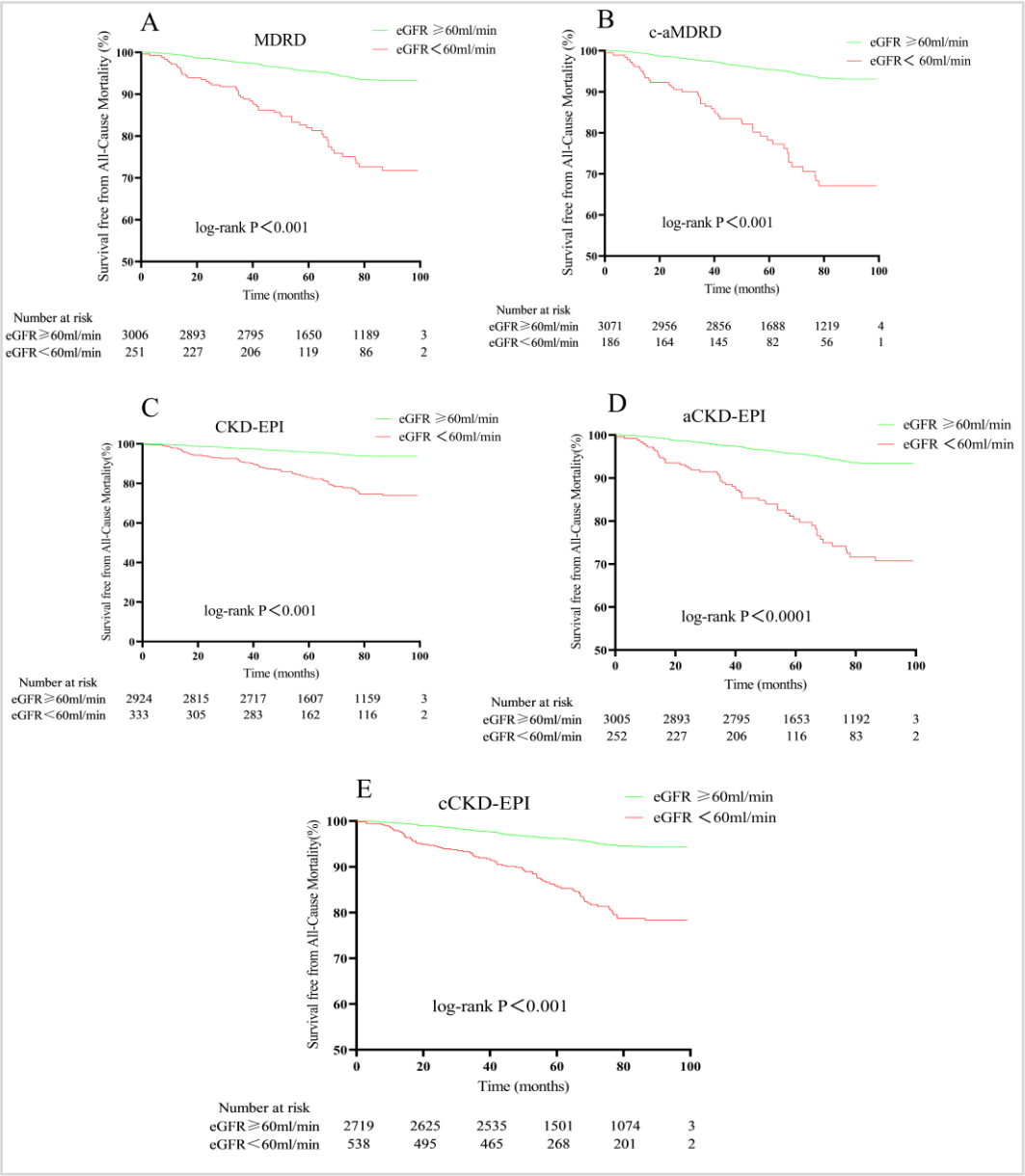
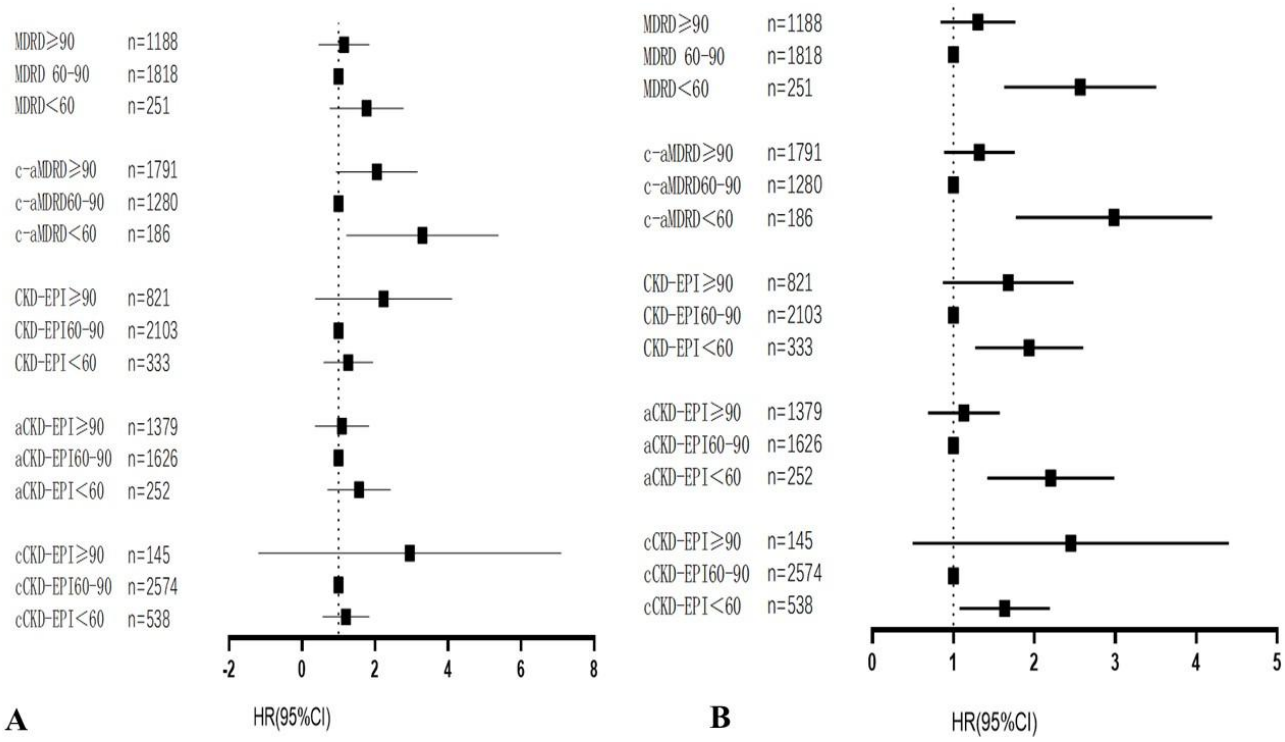


Supplementary Figure 1 Kaplan–Meier curves show the relationship between estimated glomerular filtration rate (eGFR) and survival free from cardiovascular (CV) mortality.



Supplementary Figure 2 Kaplan–Meier curves show the relationship between estimated glomerular filtration rate (eGFR) and survival free from all-cause mortality.



Supplementary Figure 3 The predication of estimated glomerular filtration rate (eGFR) for cardiovascular (CV) mortality (A) and all-cause mortality (B).

Supplementary Table 1 Baseline characteristics based on eGFR values estimated by different equations

Variable	MDRD ≥90ml/min (n=1188,36.5%)	c-aMDRD ≥90ml/min (n=1791,55.0%)	CKD-EPI ≥90ml/min (n=821,25.2%)	aCKD-EPI ≥90ml/min (n=1379,42.3%)	cCKD-EPI ≥90ml/min (n=145,4.5%)
Mean Age	68 (66-72)	69 (67-72)	67 (66-69)	68 (66-71)	68 (6670)
Male	524 (44.1)	652 (36.4)	305 (37.1)	575 (41.7)	2 (1.4)
Hypertension	593 (49.9)	892 (49.8)	391 (47.6)	666 (48.3)	66(45.5)
Diabetes	265 (22.3)	356 (19.9)	185 (22.5)	288(20.9%)	40(27.6%)
CHD	347 (29.2)	539 (30.1)	212 (25.8)	385 (27.9)	42 (29)
stroke	218 (18.4)	327 (18.3)	154 (18.8)	257 (18.6%)	24 (16.6%)
Smoking	289 (24.3)	377 (21.0)	201 (24.5)	332 (24.1%)	2 (1.4%)
BMI	24.2 (21.9-26.2)	24.2 (22.0-26.3)	24.1 (21.9-26.2)	24.1 (21.9-26.3)	24.1 (22.1-26.8)
Alcohol	222 (18.7)	320 (17.9)	147 (17.9)	253 (18.3)	19 (13.1)
TC	5.02 (4.33-5.69)	5.07 (4.41-5.74)	5.04 (4.38-5.70)	5.04 (4.38-5.72)	5.16 (4.58-7.79)
LDL	3.06 (2.45-3.67)	3.10 (2.52-3.71)	3.08 (2.49-3.68)	3.07 (2.48-3.69)	3.23 (2.65-3.82)
TG	1.42 (1.05-1.94)	1.39 (1.04-1.91)	1.42 (1.05-1.94)	1.40 (1.05,1.92)	1.38 (0.96-1.90)
HDL	1.36 (1.14-1.61)	1.36 (1.14-1.61)	1.35 (1.14-1.61)	1.36 (1.15-1.60)	1.39 (1.14-1.66)
WBC	5.54 (4.70-6.54)	5.54 (4.70-6.51)	5.52 (4.71-6.48)	5.55 (4.70-6.52)	5.61 (4.73-6.55)
Albumin	47 (45-49)	47 (45-49)	47 (45-49)	47 (45-49)	47 (45-49)
Uric acid	301 (253-346)	304 (259-350)	295 (250-341)	303 (258-349)	260 (231-315)

Data is presented as median (IQR) or number (%). HDL: high-density lipoprotein; LDL: low-density lipoprotein; TC: total cholesterol; TG:

triglyceride; BMI: body mass index; CHD: coronary heart disease.

eGFR estimated glomerular filtration rate

MDRD Modification of Diet in Renal Disease

CKD-EPI Chronic Kidney Disease Epidemiology Collaboration

MACE: major cardiovascular events

CKD: Chronic kidney disease

NYHA: New York Heart Association

ROC: Receiver operating characteristic

AIC: Akaike information criterion

Supplementary Table 2 The prediction of Estimated Glomerular Filtration Rate for Cardiovascular Mortality

		eGFR(ml/min)		
Equation	Cox	**≥90**	**60-90**	**< 60**
MDRD	Event	16/1188	42/1818	19/251
	HR	1.01	1	1.58
	95% CI	0.54-1.90		0.87-2.86
	P	0.97		0.13
c-aMDRD	Event	32/1791	27/1280	16/186
	HR	1.85	1	2.86
	95% CI	1.05-3.25		1.47-5.56
	P	0.035		0.002
CKD-EPI	Event	7/821	46/2103	24/333
	HR	1.71	1	1.15
	95% CI	0.68-4.31		0.66-1.99
	P	0.26		0.62
aCKD-EPI	Event	12/1379	45/1626	20/252
	HR	0.93	1	1.40
	95% CI	0.45-1.90		0.79-2.49
	P	0.84		0.25
cCKD-EPI	Event	1/145	41/2574	35/538
	HR	1.01	1	1.09
	95% CI	0.13-7.71		0.63-1.89
	P	0.99		0.76

HR: hazard risk; CI: confident interval. Models were adjusted to gender, smoking, hypertension, diabetes, BMI, age, coronary heart disease, white blood cell, serum albumin, uric acid, and stroke

Supplementary Table 3 The prediction of Estimated Glomerular Filtration Rate for all-cause mortality

		eGFR(ml/min)		
Equation	**Cox**	**≥90**	**60-90**	**< 60**
MDRD	Event	54/1188	95/1818	53/251
	HR	1.25	1	2.45
	95% CI	0.87-1.79		1.69-3.56
	P	0.23		＜0.001
c-aMDRD	Event	82/1791	75/1280	45/186
	HR	1.27	1	2.82
	95% CI	0.91-1.78		1.86-4.27
	P	0.17		< 0.001
CKD-EPI	Event	26/821	111/2103	65/333
	HR	1.55	1	1.86
	95% CI	0.94-2.54		1.31-2.64
	P	0.085		0.001
aCKD-EPI	Event	45/1379	102/1626	55/252
	HR	1.07	1	2.11
	95% CI	0.72-1.60		1.47-3.03
	P	0.73		＜0.001
cCKD-EPI	Event	6/145	109/2574	87/538
	HR	1.93	1	1.57
	95% CI	0.81-4.61		1.11-2.22
	P	0.14		0.011

HR: hazard risk; CI: confident interval. Models were adjusted to gender, smoking, hypertension, diabetes, BMI, age, coronary heart disease, white blood cell, serum albumin, uric acid, and stroke

Supplementary Table 4 Goodness-of-fit among different eGFR equations

Outcome	Equation	AIC	BIC	AUC
MACE	MDRD	2191	2204	0.533
	caMDRD	2189	2202	0.539
	CKDEPI	2180	2192	0.558
	aCKDEPI	2180	2192	0.557
	cCKDEPI	2178	2190	0.567
Cardiovascular Mortality	MDRD	704	716	0.644
	caMDRD	704	716	0.642
	CKDEPI	685	697	0.703
	aCKDEPI	685	697	0.703
	cCKDEPI	685	697	0.701
All-Cause Mortality	MDRD	1461	1474	0.627
	caMDRD	1459	1471	0.630
	CKDEPI	1415	1427	0.677
	aCKDEPI	1416	1428	0.675
	cCKDEPI	1428	1441	0.677
Event-free	MDRD	2662	2674	0.559
	caMDRD	2658	2670	0.565
	CKDEPI	2626	2638	0.591
	aCKDEPI	2627	2639	0.589
	cCKDEPI	2632	2645	0.600

AIC: Akaike information criterion; AUC: area under the curve; BIC: Bayesian Information Criteria. MDRD: the Modification of Diet in Renal Disease; CKD-EPI: chronic kidney disease epidemiology collaboration.