

Supplementary Table SI. Patient demographics and baseline characteristics among CVD patients with DM and pre-DM

Characteristic	CVD with Pre-DM	CVD with DM	p value ²
	Weighted N = 5,693,526 Unweighted n = 1492 ¹	Weighted N = 5,621,399 Unweighted n = 1732 ¹	
Age, years	67 ± 12	67 ± 10	0.423
Gender, n (%)			0.973
Male	861 (55.34)	987 (55.26)	
Female	631 (44.66)	745 (44.74)	
Race, n (%)			<0.001
White	880 (77.03)	814 (69.97)	
Black	309 (10.45)	432 (14.06)	
Mexican	113 (3.29)	224 (5.67)	
Other	190 (9.23)	262 (10.31)	
Education, n (%)			0.001
Less than high school	205 (8.79)	333 (12.28)	
High school grad or equivalent	630 (41.20)	745 (43.93)	
Some college or above	657 (50.01)	654 (43.79)	
Smoking status, n (%)			<0.001
Never	562 (36.86)	701 (40.31)	
Former	590 (39.13)	758 (44.09)	
Now	340 (24.01)	273 (15.61)	
Alcohol, n (%)			0.002
Never	177 (11.35)	266 (15.46)	
Former	390 (26.66)	529 (32.60)	
Mild	498 (41.50)	466 (35.25)	
Moderate	97 (8.97)	115 (7.31)	
Heavy	147 (11.51)	125 (9.38)	
Family poverty income ratio, n (%)			0.169
<1	294 (15.61)	390 (17.55)	
1-3	697 (46.34)	806 (49.55)	
>3	381 (38.05)	397 (32.90)	
Hypertension, n (%)			<0.001
No	408 (29.80)	347 (20.74)	
Yes	1084 (70.20)	1385 (79.26)	
BMI, kg/m²	30 ± 7	33 ± 7	<0.001
Leukocyte, 10⁹/L	7.58 ± 4.53	7.64 ± 2.28	0.660
Lymphocyte, 10⁹/L	2.25 ± 3.96	2.04 ± 0.93	0.033
Monocyte, 10⁹/L	0.62 ± 0.24	0.61 ± 0.22	0.185
Neutrophil, 10⁹/L	4.43 ± 1.70	4.69 ± 1.80	<0.001
RBC, 10¹²/L	4.60 ± 0.54	4.52 ± 0.56	<0.001
Hemoglobin, g/dL	13.97 ± 1.58	13.57 ± 1.63	<0.001
Red cell distribution width, %	13.75 ± 1.49	13.98 ± 1.51	<0.001
Platelets, 10⁹/L	233.24 ± 69.59	229.05 ± 72.21	0.095
ALT, IU/L	22.42 ± 14.30	24.56 ± 40.18	0.051
AST, IU/L	25.20 ± 13.15	26.02 ± 28.14	0.307
Albumin, g/L	41.22 ± 3.29	40.40 ± 3.58	<0.001
TBil, mg/dL	0.68 ± 0.31	0.66 ± 0.31	0.092
GGT, IU/L	31.49 ± 44.18	38.58 ± 52.26	<0.001

Characteristic	CVD with Pre-DM	CVD with DM	p value ²
	Weighted N = 5,693,526 Unweighted n = 1492 ¹	Weighted N = 5,621,399 Unweighted n = 1732 ¹	
TC, mg/dL	185.31 ± 43.59	174.31 ± 45.41	<0.001
TG, mg/dL	140.48 ± 90.81	144.29 ± 96.79	0.409
LDL-cholesterol, mg/dL	99.29 ± 36.67	102.24 ± 39.77	0.123
HDL-cholesterol, mg/dL	51.04 ± 15.24	46.79 ± 14.07	<0.001
LDH, IU/L	146.15 ± 35.88	144.98 ± 39.04	0.382
eGFR, mL/min/1.73m ²	72.71 ± 22.38	68.71 ± 25.19	<0.001
Scr, umol/L	95.82 ± 52.29	107.71 ± 76.12	<0.001
Uric acid, mg/dL	6.04 ± 1.55	6.14 ± 1.75	0.089
BUN, mg/dL	17.15 ± 8.05	19.80 ± 11.14	<0.001
FPG, mg/dL	129.65 ± 48.11	129.75 ± 51.31	0.964
FINS, µIU/mL	19.79 ± 26.40	19.59 ± 30.23	0.884
HbA1c, %	5.77 ± 0.33	7.18 ± 1.56	<0.001
NLR	2.51 ± 1.55	2.65 ± 1.53	0.010
SII	586.86 ± 420.99	604.36 ± 414.97	0.236
RAR	0.34 ± 0.05	0.35 ± 0.06	<0.001
Follow-up time (months)	81.89 ± 50.64	75.51 ± 50.70	<0.001
All-cause mortality			<0.001
No	972 (70.30)	1029 (62.76)	
Yes	520 (29.70)	703 (37.24)	
Cardiovascular mortality			0.011
No	1288 (88.93)	1453 (85.68)	
Yes	204 (11.07)	279 (14.32)	

¹Mean ± SD; n (unweighted) (%)

²Kruskal-Wallis rank-sum test for complex survey samples; chi-squared test with Rao & Scott's second-order correction

RAR Red Cell Distribution Width to Albumin Ratio, PIR poverty-to-income ratio, DM diabetes mellites, CVD Cardiovascular Disease, BMI body mass index, RBC red blood cell, ALT Alanine aminotransferase, AST aspartate transaminase, TBil total bilirubin, GGT γ-glutamyl transferase, TC total cholesterol, TG triglyceride, LDL-C low-density lipoprotein cholesterol, HDL-C high-density lipoprotein, LDH lactate dehydrogenase, eGFR estimated glomerular filtration rate, Scr serum creatinine, BUN blood urea nitrogen, FBG fasting blood glucose, FINS Fasting insulin, HbA1c Glycosylated hemoglobin A1c, NLR neutrophil to lymphocyte ratio, SII systemic immune-inflammation index

Supplementary Table SII. HRs (95% CIs) for Mortality in CVD Patients With Pre-DM

	HR (95% CI)		
	Model 1	Model 2	Model 3
All-cause mortality			
RAR per-SD change	1.56 (1.40, 1.73)	1.57 (1.37, 1.80)	1.52 (1.28, 1.82)
Cardiovascular mortality			
RAR per-SD change	1.59 (1.39, 1.81)	1.58 (1.35, 1.86)	1.53 (1.28, 1.82)

Model 1 is adjusted for none.

Model 2 adjusted for age, sex, and race

Model 3 was adjusted for age, sex, race, BMI, tobacco use, alcohol use, education, FPIR, hypertension, monocytes, red blood cells, platelets, GGT, uric acid, TC, HDL, eGFR, TBil, LDH, and BUN.

RAR red cell distribution width to albumin ratio, *Pre-DM* prediabetes, *DM* diabetes, *CVD* Cardiovascular Disease, *BMI* body mass index, *FPIR* family poverty income ratio, *GGT* γ -glutamyl transferase, *TC* total cholesterol, *HDL-C* high-density lipoprotein, *eGFR* estimated glomerular filtration rate, *TBil* total bilirubin, *LDH* lactate dehydrogenase, *BUN* blood urea nitrogen, *HR* hazard ratio, *CI* confidence interval, *SD* standard deviation.

Supplementary Table SIII. HRs (95% CIs) for Mortality in CVD Patients With DM

	HR (95% CI)		
	Model 1	Model 2	Model 3
All-cause mortality			
RAR per-SD change	1.46 (1.33, 1.60)	1.55 (1.40, 1.72)	1.40 (1.27, 1.55)
Cardiovascular mortality			
RAR per-SD change	1.46 (1.29, 1.64)	1.56 (1.36, 1.79)	1.43 (1.24, 1.65)

Model 1 is adjusted for none.

Model 2 adjusted for age, sex, and race

Model 3 was adjusted for age, sex, race, BMI, tobacco use, alcohol use, education, FPIR, hypertension, monocytes, red blood cells, platelets, GGT, uric acid, TC, HDL, eGFR, TBil, LDH, and BUN.

RAR red cell distribution width to albumin ratio, *Pre-DM* prediabetes, *DM* diabetes, *CVD* Cardiovascular Disease, *BMI* body mass index, *FPIR* family poverty income ratio, *GGT* γ -glutamyl transferase, *TC* total cholesterol, *HDL-C* high-density lipoprotein, *eGFR* estimated glomerular filtration rate, *TBil* total bilirubin, *LDH* lactate dehydrogenase, *BUN* blood urea nitrogen, *HR* hazard ratio, *CI* confidence interval, *SD* standard deviation.