Supplementary

Table S1 Baseline characteristics of hypertensive participants included versus excluded from the final analytic sample

Variables	Total (N=3,972)	Excluded (N=1,518)	Included (N=2,454)	P overall	SMD
Gender				0.223	0.041
Female	2,185 (55.0)	816 (53.8)	1,369 (55.8)		
Male	1,787 (45.0)	702 (46.2)	1,085 (44.2)		
Age, year	61.95 (10.07)	62.92 (10.93)	61.35 (9.46)	<0.001	0.154
Age group				0.202	0.043
<60	1,688 (42.8)	618 (41.5)	1,070 (43.6)		
≥60	2,256 (57.2)	872 (58.5)	1,384 (56.4)		
Education level				0.014	0.094
Below primary school	2,047 (51.6)	769 (50.7)	1,278 (52.1)		
High school and above	401 (10.1)	180 (11.9)	221 (9.0)		
Primary and middle school	1,522 (38.3)	567 (37.4)	955 (38.9)		
Marriage				0.006	0.09
Married/cohabitation	3,344 (84.2)	1,247 (82.1)	2,097 (85.5)		
Divorced/separated	628 (15.8)	271 (17.9)	357 (14.5)		
Cardiovascular disease				0.106	0.054
No	3,023 (76.5)	1,124 (75.1)	1,899 (77.4)		
Yes	928 (23.5)	373 (24.9)	555 (22.6)		
Diabetes				<0.001	0.12
No	3,449 (87.6)	1,262 (85.1)	2,187 (89.1)		
Yes	488 (12.4)	221 (14.9)	267 (10.9)		
Dyslipidemia				0.119	0.053
No	3,092 (79.5)	1,121 (78.2)	1,971 (80.3)		
Yes	796 (20.5)	313 (21.8)	483 (19.7)		
Drinking status				0.844	0.008
No	28,70 (72.4)	1,096 (72.6)	1,774 (72.3)		
Yes	1,093 (27.6)	413 (27.4)	680 (27.7)		
Smoking status				0.652	0.016
No	2,889 (75.2)	1,050 (75.6)	1,839 (74.9)		
Yes	953 (24.8)	338 (24.4)	615 (25.1)		

Values are mean (SD) or n (%). Standardized mean differences (SMDs) were calculated to assess covariate balance between groups; larger absolute values indicate greater imbalance. P values were computed using appropriate tests for descriptive purposes only. Excluded participants comprised individuals with insufficient data for CTI derivation and/or incomplete baseline covariates.

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Table S2 Biomarker availability and missingness rates in excluded hypertensive participants

Biomarker/index	Total N	Available n (%)	Missing/not calculable n (%)
CRP, mg/L	1,518	384 (25.3)	1,134 (74.7)
Triglycerides, mg/dL	1,518	380 (25.0)	1,138 (75.0)
Glucose, mg/dL	1,518	377 (24.8)	1,141 (75.2)
CTI	1,518	131 (8.6)	1,387 (91.4)

Table S3 Cox regression analysis for the covariates

Variable	HR (95% CI)	P value
Model 1		
Gender male	1.50 (1.19–1.87)	<0.001
Age group ≥60	3.53 (2.66–4.67)	<0.001
Model 2		
Gender male	1.85 (1.46–2.33)	<0.001
Age group ≥60	2.90 (2.17–3.87)	<0.001
Education level high school and above	0.58 (0.34–0.97)	0.040
Education level primary and middle school	0.71 (0.55–0.91)	0.008
Marriage divorced/separated	2.02 (1.55–2.61)	<0.001
Diabetes yes	1.24 (0.88–1.73)	0.216
Dyslipidemia yes	0.93 (0.68–1.27)	0.667
Cardiovascular disease yes	1.07 (0.82–1.39)	0.597
Model 3		
Gender male	1.82 (1.37–2.40)	<0.001
Age group ≥60	2.91 (2.17–3.88)	<0.001
Education level high school and above	0.58 (0.34–0.97)	0.041
Education level primary and middle school	0.71 (0.55–0.91)	0.009
Marriage divorced/separated	2.01 (1.55–2.60)	<0.001
Diabetes yes	1.24 (0.88–1.74)	0.215
Dyslipidemia yes	0.94 (0.68–1.27)	0.671
Cardiovascular disease yes	1.07 (0.82–1.39)	0.595
Drinking status yes	0.99 (0.75–1.30)	0.948
Smoking status yes	1.05 (0.79–1.38)	0.736

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Table S4 IPW-weighted Cox regression between the CTI and all-cause mortality risk

Variables	Crude model		Model 1		Model 2		Model 3	
	HR (95% CI)	P value	HR (95% CI)	P value	HR (95% CI)	P value	HR (95% CI)	P value
CTI	1.04 (1.00–1.07)	0.023	1.04 (1.01–1.08)	0.011	1.04 (1.01–1.08)	0.01	1.04 (1.01–1.08)	0.008
CTI tertile								
1	Ref		Ref		Ref		Ref	
2	1.38 (1.04–1.83)	0.025	1.42 (1.07–1.89)	0.015	1.45 (1.09–1.93)	0.01	1.49 (1.11–1.99)	0.008
3	1.47 (1.11–1.95)	0.007	1.52 (1.15–2.02)	0.004	1.53 (1.15–2.05)	0.004	1.57 (1.17–2.10)	0.003
P for trend		0.007		0.004		0.01		0.003

Crude model: unadjusted for covariates. Model 1: adjusted for age, gender. Model 2: adjusted for age, gender, marital status, educational level, dyslipidemia, diabetes. Model 3: adjusted for age, gender, marital status, educational level, dyslipidemia, diabetes, drinking and smoking status. CTI, C-reactive protein-triglyceride-glucose index; HR, hazard ratio; CI, confidence interval. Stabilized inverse probability weights were derived from a logistic regression model for inclusion in the analytic sample and truncated at the 1st and 99th percentiles. The weights were well-distributed (mean 0.93; range 0.82–1.25), with no evidence of extreme values or positivity violations.

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