

Supplemental materials

Table S1. Baseline Clinical and Medication Characteristics (After IPW Adjustment).

	Total (n = 5888)	Normal uric acid (n = 4326)	Original Cohort			absolute SMD	After IPW-Adjusted			
			High uric acid (n = 1562)	p-value	Normal uric acid		High uric acid	p-value	absolute SMD	
Clinical characteristics										
Age, year	64.0 ± 12.7	63.6 ± 12.4	65.4 ± 13.3	<0.001	0.141	64.0 ± 12.4	63.8 ± 13.5	0.589	0.017	
Age ≥65 year	3010 (51.1)	2119 (49.0)	891 (57.0)	<0.001	0.162	3010.7 (50.8)	3045.2 (52.1)	0.419	0.025	
Male	4141 (70.3)	3085 (71.3)	1056 (67.6)	0.007	0.081	4183.7 (70.6)	4159.4 (71.2)	0.703	0.012	
BMI, kg/m2	24.1 ± 3.2	24.0 ± 3.2	24.3 ± 3.4	0.022	0.069	24.1 ± 3.2	24.1 ± 3.3	0.921	0.003	
BMI >25 kg/m2	2069 (35.1)	1485 (34.3)	584 (37.4)	0.032	0.064	2060.1 (34.8)	2064.6 (35.3)	0.713	0.011	
DM	2232 (37.9)	1584 (36.6)	648 (41.5)	0.001	0.1	2265.3 (38.2)	2215.9 (37.9)	0.827	0.007	
Hypertension	4182 (71.0)	3008 (69.5)	1174 (75.2)	<0.001	0.126	4212.8 (71.1)	4146.9 (70.9)	0.906	0.004	
History of dyslipidemia	1371 (23.3)	1013 (23.4)	358 (22.9)	0.716	0.012	1365.3 (23.0)	1348.7 (23.1)	0.985	0.001	
History of Stroke	472 (8.0)	326 (7.5)	146 (9.3)	0.027	0.065	480.2 (8.1)	485.5 (8.3)	0.811	0.007	
Current smoker	2280 (38.7)	1724 (39.9)	556 (35.6)	0.003	0.088	2284.4 (38.6)	2276.9 (39.0)	0.8	0.008	
Previous MI	259 (4.4)	187 (4.3)	72 (4.6)	0.688	0.014	278.8 (4.7)	241.7 (4.1)	0.401	0.028	
Previous PCI	456 (7.7)	327 (7.6)	129 (8.3)	0.406	0.026	479.4 (8.1)	464.0 (7.9)	0.862	0.006	
Previous CABG	32 (0.5)	22 (0.5)	10 (0.6)	0.685	0.017	34.0 (0.6)	29.1 (0.5)	0.723	0.01	
Atrial fibrillation on baseline ECG	224 (3.8)	144 (3.3)	80 (5.1)	0.002	0.089	223.7 (3.8)	218.5 (3.7)	0.942	0.002	
eGFR <30 mL/min/1.73 m2	412 (7.0)	183 (4.2)	229 (14.7)	<0.001	0.362	461.4 (7.8)	433.2 (7.4)	0.631	0.014	
Chronic liver disease	59 (1.0)	43 (1.0)	16 (1.0)	1	0.003	58.2 (1.0)	62.9 (1.1)	0.765	0.009	
Chronic lung disease	153 (2.6)	101 (2.3)	52 (3.3)	0.043	0.06	152.7 (2.6)	162.1 (2.8)	0.692	0.012	
Cancer	198 (3.4)	142 (3.3)	56 (3.6)	0.626	0.017	197.7 (3.3)	212.8 (3.6)	0.595	0.016	
LVEF	52.7 ± 11.6	53.4 ± 11.1	50.5 ± 12.6	<0.001	0.248	52.5 ± 11.7	52.7 ± 11.8	0.63	0.015	
LVEF ≤35%	505 (8.6)	288 (6.7)	217 (13.9)	<0.001	0.24	533.5 (9.0)	511.3 (8.7)	0.757	0.009	
ST-segment elevation MI	3095 (52.6)	2313 (53.5)	782 (50.1)	0.023	0.068	3098.9 (52.3)	3090.8 (52.9)	0.72	0.011	
ACEF score	1.4 ± 0.6	1.3 ± 0.6	1.5 ± 0.7	<0.001	0.371	1.4 ± 0.6	1.4 ± 0.6	0.529	0.02	
Medication at discharge										
Aspirin	5793 (98.4)	4258 (98.4)	1535 (98.3)	0.761	0.012	5825.1 (98.3)	5758.2 (98.5)	0.638	0.014	
Clopidogrel	5151 (87.5)	3761 (86.9)	1390 (89.0)	0.04	0.063	5189.8 (87.6)	5126.2 (87.7)	0.935	0.003	
Ticagrelor	331 (5.6)	240 (5.5)	91 (5.8)	0.73	0.012	327.6 (5.5)	321.7 (5.5)	0.97	0.001	
Prasugrel	371 (6.3)	301 (7.0)	70 (4.5)	0.001	0.107	370.4 (6.3)	361.8 (6.2)	0.94	0.003	
Potent P2Y12 inhibitor	702 (11.9)	541 (12.5)	161 (10.3)	0.024	0.069	698.0 (11.8)	683.6 (11.7)	0.932	0.003	
Beta-blocker	5131 (87.1)	3824 (88.4)	1307 (83.7)	<0.001	0.137	5160.3 (87.1)	5086.4 (87.0)	0.922	0.003	
ACEi or ARB	4443 (75.5)	3333 (77.0)	1110 (71.1)	<0.001	0.137	4473.1 (75.5)	4462.9 (76.3)	0.514	0.02	
Oral anticoagulant	154 (2.6)	97 (2.2)	57 (3.6)	0.004	0.083	152.0 (2.6)	155.0 (2.7)	0.85	0.005	
Statin at discharge	5638 (95.8)	4154 (96.0)	1484 (95.0)	0.102	0.049	5672.0 (95.7)	5594.9 (95.7)	0.955	0.002	

Data are presented as the n (%) for categorical variables and as the mean ± standard deviation for continuous variables. PS indicates propensity-score; IPW, inverse probability weighted; SMD, standardized mean differences; BMI, body mass index; DM, diabetes mellitus; MI, myocardial infarction; CABG, coronary artery bypass graft; ECG, electrocardiography; eGFR, estimated

glomerular filtration rate; LVEF, left ventricle ejection fraction; ACEi, angiotensin converting enzyme inhibitors; ARB, angiotensin II receptor blockers.

Table S2. Baseline Laboratory and Angiographic Characteristics (After IPW Adjustment).

	Total (n = 5888)	Original Cohort				After IPW-Adjusted				
		Normal uric acid (n = 4326)	High uric acid (n = 1562)	p- value	absolute SMD	Normal uric acid	High uric acid	p- value	absolute SMD	
Laboratory findings										
Uric acid, mg/dL	5.6 ± 4.0	4.3 ± 1.4	9.1 ± 6.1	<0.001	1.071	4.3 ± 1.4	9.2 ± 6.9	<0.001	0.991	
Uric acid, μmol/L	(333.1 ± 237.9)	(255.8 ± 83.3)	(541.3 ± 362.8)			(255.8 ± 83.3)	(547.2 ± 410.4)			
CK-MB, peak, ng/mL	130.0 ± 753.8	124.4 ± 267.3	145.2 ± 1394.5	0.558	0.021	124.3 ± 276.3	140.0 ± 1175.9	0.539	0.018	
Hemoglobin, mg/dL	13.4 ± 2.2	13.5 ± 2.1	13.1 ± 2.5	<0.001	0.154	13.4 ± 2.1	13.4 ± 2.3	0.562	0.018	
Creatinine, mg/dL	1.2 ± 1.2	1.1 ± 1.0	1.5 ± 1.5	<0.001	0.344	1.3 ± 1.7	1.3 ± 1.0	0.862	0.007	
high-sensitivity CRP, mg/dL	5.3 ± 18.5	5.1 ± 18.1	5.7 ± 19.6	0.286	0.032	5.4 ± 19.1	4.8 ± 17.3	0.205	0.038	
Total cholesterol, mg/dL	176.8 ± 43.2	176.7 ± 42.6	177.1 ± 45.0	0.772	0.009	175.7 ± 43.0	178.4 ± 43.7	0.043	0.063	
Triglyceride, mg/dL	122.2 ± 89.4	119.2 ± 84.4	130.3 ± 101.7	<0.001	0.119	122.7 ± 90.7	122.5 ± 87.5	0.923	0.003	
High-density lipoprotein, mg/dL	40.6 ± 10.8	41.0 ± 10.9	39.4 ± 10.7	<0.001	0.149	40.5 ± 10.8	40.5 ± 11.3	0.894	0.005	
Low-density lipoprotein, mg/dL	112.3 ± 37.1	112.5 ± 37.0	111.8 ± 37.6	0.52	0.019	111.7 ± 37.1	113.0 ± 37.5	0.247	0.036	
Angiographic characteristics										
Multivessel disease	3198 (54.3)	2259 (52.2)	939 (60.1)	<0.001	0.16	3218.0 (54.3)	3139.7 (53.7)	0.698	0.012	
Left main PCI	230 (3.9)	156 (3.6)	74 (4.7)	0.057	0.057	228.1 (3.9)	220.0 (3.8)	0.876	0.005	
Left anterior descending PCI	3515 (59.7)	2595 (60.0)	920 (58.9)	0.471	0.022	3580.0 (60.4)	3399.9 (58.2)	0.14	0.046	
Left circumflex PCI	1589 (27.0)	1188 (27.5)	401 (25.7)	0.183	0.041	1634.6 (27.6)	1482.3 (25.4)	0.106	0.051	
Right coronary artery PCI	2364 (40.1)	1718 (39.7)	646 (41.4)	0.269	0.033	2368.0 (40.0)	2392.3 (40.9)	0.535	0.019	
Total stent number	1.6 ± 0.9	1.6 ± 0.9	1.6 ± 0.9	0.103	0.048	1.6 ± 0.9	1.6 ± 0.9	0.968	0.001	
Total stent length	37.6 ± 25.0	37.2 ± 24.8	38.6 ± 25.5	0.05	0.058	37.5 ± 25.2	37.7 ± 24.8	0.796	0.008	
Bifurcation PCI with two stents	91 (1.5)	57 (1.3)	34 (2.2)	0.025	0.066	90.3 (1.5)	86.2 (1.5)	0.884	0.004	
Long stenting >60mm	283 (4.8)	209 (4.8)	74 (4.7)	0.937	0.004	298.0 (5.0)	254.3 (4.3)	0.295	0.032	
Restenosis lesion	91 (1.5)	67 (1.5)	24 (1.5)	1	0.001	90.8 (1.5)	76.7 (1.3)	0.542	0.019	
Ostial lesion	232 (3.9)	158 (3.7)	74 (4.7)	0.07	0.054	227.6 (3.8)	265.9 (4.5)	0.25	0.035	
Second generation DES	3499 (59.4)	2616 (60.5)	883 (56.5)	0.007	0.08	3511.4 (59.3)	3477.0 (59.5)	0.893	0.004	

Data are presented as the n (%) for categorical variables and as the mean ± standard deviation for continuous variables. PS indicates propensity-score; IPW, inverse probability weighted; SMD, standardized mean differences; CK-MB, creatine kinase muscle brain; CRP, C-reactive protein; PCI, percutaneous coronary intervention; DES, drug-eluting stent.

Table S3. Predictive Factors for Mortality According to multivariable Cox Regression Analysis.

	Unadjusted		Multivariable-adjusted	
	HR (95% CI)	p-value†	HR (95% CI)	p-value†
High uric acid	1.69 (1.52,1.88)	< 0.001	1.18 (1.05,1.32)	0.005
Age ≥65 years	5.01 (4.4,5.7)	< 0.001	3.47 (3.01,4)	< 0.001
LVEF ≤35%	3.19 (2.79,3.65)	< 0.001	2 (1.74,2.29)	< 0.001
Atrial fibrillation	1.88 (1.53,2.32)	< 0.001	1.6 (1.28,1.99)	< 0.001
eGFR <30 mL/min/1.73 m ²	5.25 (4.6,5.99)	< 0.001	1.52 (1.25,1.86)	< 0.001

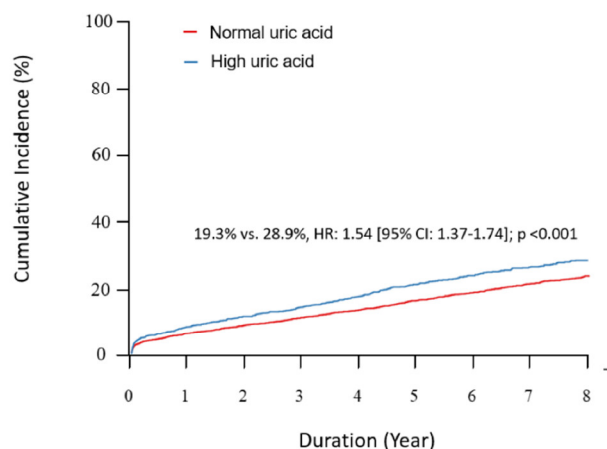
History of stroke	2.17 (1.87,2.51)	< 0.001	1.43 (1.23,1.67)	< 0.001
Diabetes mellitus	1.77 (1.6,1.97)	< 0.001	1.23 (1.1,1.37)	< 0.001
Creatinine	1.22 (1.19,1.24)	< 0.001	1.08 (1.04,1.12)	< 0.001
ACEi or ARB	0.48 (0.43,0.53)	< 0.001	0.55 (0.49,0.62)	< 0.001
Hemoglobin	0.75 (0.73,0.76)	< 0.001	0.88 (0.86,0.91)	< 0.001
Body mass index	0.54 (0.48,0.61)	< 0.001	0.75 (0.67,0.85)	< 0.001
Clopidogrel	1.63 (1.31,2.02)	< 0.001	0.6 (0.39,0.93)	0.021
Triglyceride	1 (1,1)	< 0.001	1 (1,1)	0.003
HDL cholesterol	0.99 (0.98,0.99)	< 0.001	0.99 (0.99,1)	0.003
Potent P2Y12 inhibitor	0.49 (0.38,0.63)	< 0.001	0.5 (0.3,0.85)	0.01
LDL cholesterol	0.99 (0.99,0.99)	< 0.001	1 (1,1)	0.05
ST-segment elevation MI	0.68 (0.61,0.76)	< 0.001	0.92 (0.82,1.02)	0.11
Male	0.57 (0.51,0.63)	< 0.001	1.1 (0.98,1.25)	0.113
Prasugrel	0.31 (0.2,0.46)	< 0.001	0.68 (0.41,1.13)	0.135
Chronic lung disease	1.92 (1.49,2.46)	< 0.001	1.2 (0.93,1.55)	0.155
History of dyslipidemia	0.74 (0.65,0.85)	< 0.001	1.09 (0.94,1.26)	0.27
hypertension	1.43 (1.27,1.62)	< 0.001	1.04 (0.92,1.18)	0.542
Current smoker	0.48 (0.43,0.54)	< 0.001	1.03 (0.9,1.18)	0.657
Multivessel disease	1.44 (1.3,1.61)	< 0.001	1.02 (0.91,1.14)	0.712
Oral anticoagulant	1.41 (1.06,1.88)	0.019	0.95 (0.71,1.28)	0.75

†p value from Cox regression. High uric acid is defined as >6.5mg/dL for male and >5.8mg/dL for female. HR indicates hazard ratio; CI, confidence interval; LVEF, left ventricular ejection fraction; ACEi, angiotensin converting enzyme inhibitors; ARB, angiotensin II receptor blockers; eGFR, estimated glomerular filtration rate; HDL, high density lipoprotein; LDL, low density lipoprotein; MI, myocardial infarction.

(A) eGFR ≥ 30 (mL/min/1.73 m²)

(B) eGFR <30 (mL/min/1.73 m²)

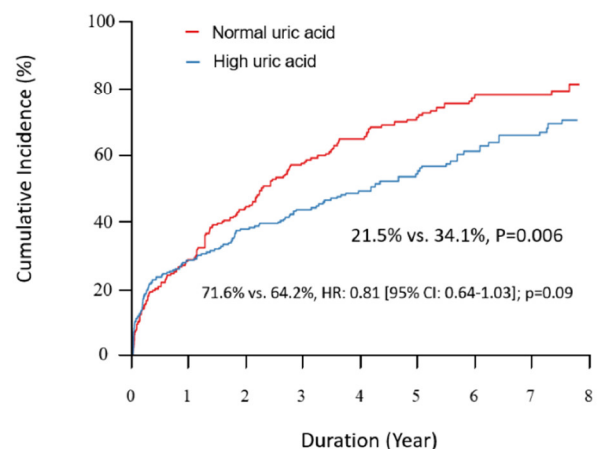
All-cause death



Number at risk

Normal uric acid	4143	3758	3578	3364	2700	2225	1655	1238	916
High uric acid	1333	1148	1077	1005	815	662	513	419	317

All-cause death



Number at risk

Normal uric acid	183	124	97	70	47	34	19	13	6
High uric acid	229	150	128	107	71	52	38	27	19

Figure S1. Kaplan-Meier Curve With Cumulative Hazards of All-cause Death Compared According to the Uric Acid Level in the Subgroups of (A) eGFR ≥ 30 mL/min/1.73 m² and (B) eGFR <30 mL/min/1.73 m².