

SUPPLEMENTARY DATA

Supplementary Table 1. The clinical characteristics of the 5 glucose groups based on admission serum glucose levels in AMI patients with type 2 diabetes.

Groups	Group 1 (n= 255)	Group 2 (n= 7432)	Group 3 (n= 6276)	Group 4 (n= 3396)	Group 5 (n= 3737)	P value
Age (years)	67.6±0.7	63.1±0.2	64.4±0.2	64.4±0.2	65.2±0.2	<0.001
Female (%)	37.25%	27.20%	30.87%	32.69%	38.15%	<0.001
BMI (Kg/m ²)	23.6±0.21	23.8±0.04	24.0±0.04	24.0±0.05	23.7±0.05	<0.001
sBP (mmHg)	128.5±1.88	129.2±0.2 9	128.4±0.3 4	128.7±0.4 9	126.4±0.50	<0.001
dBP (mmHg)	77.0±1.04	78.7±0.18	78.2±0.19	77.8±0.28	77.1±0.28	<0.001
Killip class I	59.91%	78.50%	72.13%	67.89%	55.45%	<0.001
II	16.59%	11.91%	14.95%	14.88%	15.97%	
III	14.28%	6.96%	8.27%	10.83%	16.54%	
IV	9.22%	2.63%	4.65%	6.40%	12.06%	
Glucose (mmol/l)	2.97±0.05	6.36±0.01	9.19±0.01	12.58±0.0 2	19.39±0.08	<0.001
HbA1c (%)	8.08±0.13	6.74±0.04	7.10±0.03	7.64±0.03	8.76±0.05	<0.001
HbA1c (mmol/mol)	64.9±1.4	50.2±0.4	54.1±0.3	60.0±0.4	72.2±0.5	<0.001
TG (mmol/l)	1.27±0.05	1.35±0.01	1.40±0.01	1.48±0.02	1.51±0.02	<0.001
Creatinine (µmol/L)	136.7±8.9	104.9±1.9	109.3±1.9	120.8±2.9	133.7±3.0	<0.001
HDL cholesterol (mmol/l)	1.06±0.02	1.12±0.01	1.11±0.01	1.10±0.01	1.08±0.01	<0.001
LDL cholesterol (mmol/l)	2.82±0.07	2.98±0.01	2.95±0.01	2.91±0.02	2.92±0.03	0.001
hsCRP (mg/L)	14.1±2.40	8.2±0.37	8.7±0.44	10.3±0.67	11.3±0.67	<0.001
Hypertension	60.94%	48.09%	54.42%	59.40%	58.49%	<0.001
Diabetes treatment	71.24%	58.95%	67.31	62.68	74.15	<0.001
Previous MI	7.06%	7.12%	7.68%	7.09%	8.53%	0.077
Heart failure	3.92%	1.92%	2.19%	2.74%	3.73%	<0.001
PAD	0.00%	1.04%	0.91%	0.88%	1.20%	0.260
CVA	9.41%	6.67%	7.60%	7.86%	7.92%	0.038
Smoking	30.70%	43.98%	40.00%	38.10%	35.90%	<0.001
Statin use	14.11%	7.24%	8.46%	8.75%	9.15%	<0.001
Aspirin use	18.82%	13.49%	15.69%	15.99%	16.40%	<0.001
Hypertension treatment	95.00%	87.52%	88.76%	91.76%	90.61%	<0.001
ACE inhibitor	4.31%	4.71%	4.54%	4.86%	4.65%	0.962
ARB	13.73%	6.16%	7.66%	7.77%	8.75%	<0.001
CCB	12.16%	9.73%	10.45%	12.01%	10.70%	0.008
Beta blocker	10.19%	8.54%	9.05%	8.86%	8.85%	0.785
Diuretics	7.45%	4.96%	5.49%	5.68%	6.90%	0.001

* The patients were divided into 5 groups according to the serum glucose levels at admission: Group 1, <3.9 mmol/L (<70 mg/dL); Group 2, 3.9-7.72 mmol/L (70-139 mg/dL); Group 3, 7.78-11.06 mmol/L (140-199 mg/dL); Group 4, 11.11-14.39 mmol/L (200-259 mg/dL); and Group 5, ≥14.44 mmol/L (≥260 mg/dL).

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Abbreviations: sBP, systolic blood pressure; dBP, diastolic blood pressure; HbA1c, hemoglobin A1c; hsCRP, high-sensitivity C-reactive protein; TG, triglycerides; MI; myocardial infarction; PAD, peripheral artery disease; CVA, cerebrovascular accident; ACE; angiotensin-converting enzyme, ARB, angiotensin receptor blocker; CCB; calcium channel blocker, PCI; percutaneous coronary intervention.

Supplementary Table 2. The clinical characteristics of the 5 glucose groups based on admission serum glucose levels in AMI patients without diabetes.

Groups	Group 1 (n = 154)	Group 2 (n = 7,783)	Group 3 (n = 4,040)	Group 4 (n = 777)	Group 5 (n = 402)	P value
Age (years)	63.8±1.1	62.4±0.2	63.9±0.2	66.7±0.5	67.6±0.6	<0.001
Female (%)	26.45%	24.46%	27.25%	35.31%	40.04%	<0.001
BMI (Kg/m ²)	23.99±0.25	23.79±0.03	23.71±0.05	23.51±0.12	22.85±0.16	<0.001
sBP (mmHg)	123.2±2.26	130.2±0.29	127.5±0.42	123.8±1.07	114.6±1.65	<0.001
dBP (mmHg)	76.6±1.30	79.5±0.17	78.4±0.25	76.8±0.61	71.9±0.98	<0.001
Killip class I	70.68%	78.99%	71.63%	55.79%	33.70%	<0.001
II	11.28%	13.17%	15.50%	17.81%	13.66%	
III	9.02%	4.99%	7.05%	10.59%	17.62%	
IV	9.02%	2.84%	5.81%	15.82%	35.02%	
Glucose (mmol/l)	3.33±0.06	6.39±0.01	8.96±0.01	12.37±0.03	18.84±0.22	<0.001
HbA1c (%)	6.19±0.15	5.69±0.01	5.78±0.01	5.88±0.02	5.77±0.03	<0.001
HbA1c (mmol/mol)	64.9±1.4	50.2±0.4	54.1±0.3	60.0±0.4	72.2±0.5	<0.001
TG (mmo/l)	1.39±0.07	1.38±0.01	1.37±0.01	1.35±0.03	1.03±0.04	0.461
HDL cholesterol (mmol/l)	1.07±0.02	1.11±0.01	1.13±0.01	1.12±0.01	1.08±0.01	<0.001
Creatinine (µmol/L)	142.7±31.9	95.6±1.5	99.8±2.3	118.2±7.9	121.9±4.7	<0.001
LDL cholesterol (mmol/l)	2.92±0.08	3.00±0.01	3.04±0.01	2.93±0.03	2.81±0.05	<0.001
hsCRP (mg/L)	7.52±1.43	5.85±0.29	5.64±0.36	7.08±0.93	8.36±1.47	0.120
Hypertension	40.9%	43.96%	45.96%	49.36%	46.82%	<0.001
Previous MI	9.68%	6.15%	5.35%	5.11%	5.53%	0.105
Heart failure	2.58%	1.19%	1.28%	2.89%	2.10%	<0.001
PAD	1.29%	0.45%	0.63	0.56%	0.38%	0.419
CVA	2.58%	5.96%	5.90%	5.67%	5.92%	0.521
Smoking	46.10%	46.24%	43.60%	36.94%	36.15%	<0.001
Statin use	6.45%	6.72%	5.65%	5.67%	5.34%	0.135
Aspirin use	13.32%	11.99%	10.91%	12.45%	9.35%	0.152
Hypertension treatment	90.16%	88.90%	88.67%	91.93%	92.86%	0.125
ACE inhibitor	3.22%	2.83%	2.83%	3.21%	3.24%	0.962
ARB	7.10%	5.87%	5.67%	5.23%	3.82%	0.306
CCB	10.97%	7.95%	7.75%	6.34%	6.30%	0.149
Beta blocker	3.87%	7.00%	5.86%	6.56%	6.69%	0.092
Diuretics	3.87%	3.51%	2.92%	4.53%	3.63%	0.195

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* The patients were divided into 5 groups according to the serum glucose levels at admission: Group 1, <3.9 mmol/L (<70 mg/dL); Group 2, 3.9-7.72 mmol/L (70-139 mg/dL); Group 3, 7.78-11.06 mmol/L (140-199 mg/dL); Group 4, 11.11-14.39 mmol/L (200-259 mg/dL); and Group 5, ≥14.44 mmol/L (≥260 mg/dL). The abbreviations are the same as those used in Supplementary Table 1.

Supplementary Table 3. The factors associated with 30-day mortality by according to Cox proportional hazard regression analysis.

Factors	HR (95% confidence intervals)	P value
Patients without diabetes		
Age (yrs)	1.046 (1.030 - 1.062)	<0.001
sBP (mmHg)	0.986 (0.979 - 0.993)	<0.001
Killip class (≥ 3)	3.237 (2.198 - 4.768)	<0.001
Heart failure	2.683 (1.339 - 5.374)	0.005
PAD	7.918 (2.477 - 25.315)	<0.001
CVA	1.818 (1.133 - 2.917)	0.013
hsCRP (mg/L)	1.007 (1.003 - 1.011)	<0.001
Hypoglycemia (< 3.9 mmol/l)	4.777 (2.090 -10.918)	<0.001
Hyperglycemia (≥ 14.44 mmol/l)	2.548 (1.624 - 4.000)	<0.001
Patients with type 2 diabetes		
Age (yrs)	1.052 (1.040 - 1.067)	<0.001
Sex (M)	1.050 (1.036 - 1.064)	0.024
sBP (mmHg)	0.737 (0.565 - 0.960)	<0.001
Killip classification (≥ 3)	3.255 (2.487 - 4.260)	<0.001
CVA	1.791 (1.273 - 2.520)	<0.001
Creatinine (μmol/L)	1.011 (1.010 - 1.012)	<0.001
Previous MI	2.139 (1.336 - 3.426)	0.002
Aspirin use	0.754 (0.575 - 0.989)	0.041
hsCRP (mg/L)	1.034 (1.023 - 1.046)	<0.001
Hypoglycemia (< 3.9 mmol/l)	2.866 (1.564 - 5.250)	<0.001
Hyperglycemia (≥ 14.44 mmol/l)	1.617 (1.222 - 2.141)	<0.001

*Adjusted for age, sex, BMI, hypertension, hypertensive medication, dyslipidemia, systolic and diastolic blood pressures, Killip class, aspirin use, statin use, hsCRP, smoking, total cholesterol, triglycerides, HDL cholesterol, LDL cholesterol, serum creatinine, PAD, CVA, previous myocardial infarction, and heart failure.

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Supplementary Table 4. Clinical characteristics of the four selected groups based on admission serum glucose and HbA1c levels in AMI patients with type 2 diabetes.

Group	A (n=107) <6.5 (48) < 3.9	B (n=856) <6.5 (48) ≥11.11	C (n=132) ≥8 (64) <3.9	D (n=1468) ≥8 (64) ≥11.11	P value
HbA1c[% (mmol/l)]					
Serum glucose (mmol/l)					
Age (years)	69.7±1.2 ^a	67.8±0.4 ^{a,b}	66.3±1.0 ^b	61.7±0.3 ^c	<0.001
Sex (female)	41.12%	38.90%	36.36%	33.11%	0.023
BMI (kg/m ²)	23.5±0.34	23.7±0.11	23.4±0.29	24.0±0.08	0.273
sBP (mmHg)	130.6±2.66	128.1±0.95	127.6±2.47	124.0±0.08	0.666
dBP (mmHg)	77.0±1.45	77.9±0.55	77.1±1.46	78.3±0.42	0.719
Killip class I	62.61%	56.21%	62.48%	67.28%	<0.001
II	11.21%	16.77%	15.75%	15.40%	
III	13.08%	15.75%	11.17%	11.49%	
IV	8.41%	11.27%	10.59%	5.82%	
Glucose (mmol/l)	3.15±0.09	12.09±0.14	3.23±0.09	18.42±0.17	<0.001
HbA1c (%)	6.34±0.09	6.38±0.02	9.09±0.28	9.62±0.04	<0.001
HbA1c (mmol/mol)	46.0±0.62	46.2±0.21	76.8±1.19	82.0±0.42	<0.001
TG (mmol/l)	1.27±0.08 ^a	1.37±0.03 ^{a,b}	1.27±0.08 ^{b,c}	1.62±0.03 ^c	<0.001
Creatinine (µmol/L)	135.44±13.91 ^{a,b}	146.82±78.5 ^b	147.96±16.21 ^b	108.63±2.75 ^a	<0.001
HDL cholesterol (mmol/l)	1.06±0.03	1.06±0.01	1.09±0.03	1.07±0.01	0.686
LDL cholesterol (mmol/l)	2.82±0.12 ^a	2.72±0.03 ^a	2.64±0.10 ^a	3.02±0.03 ^b	<0.001
hsCRP (mg/L)	14.9±3.04	12.7±1.65	9.3±1.79	11.3±1.08	0.674
Hypertension	92.75%	95.29%	96.10%	89.14%	<0.001
Diabetes treatment	69.81%	74.25%	60.94%	74.35%	<0.001
Previous MI	4.67%	7.11%	8.78%	6.52%	0.037
Heart failure	6.54%	3.96%	3.79%	2.51%	0.051
PAD	0.03%	1.63%	1.52%	0.54%	0.038
CVA	12.15%	9.86%	9.09%	6.39%	0.030
Smoking	41.35%	45.74%	51.56%	57.35%	<0.001
Statin use	12.15%	9.32%	17.42%	10.12%	0.036
Aspirin use	16.82%	19.23%	22.73%	16.85%	0.230
Hypertension treatment	92.75%	95.29%	96.10%	89.14%	<0.001
ACE inhibitor	5.61%	4.89%	4.55%	3.26%	0.192
ARB	12.14%	10.37%	14.39%	8.69%	0.102

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CCB	16.82%	13.64%	12.12%	9.31%	0.003
Beta blocker	8.41%	9.56%	11.36%	7.40%	0.179
Diuretics	9.35%	7.23%	9.09%	4.35%	0.003

*Different letters in superscript following values indicate statistical significance between groups based on Tukey's post hoc analysis. The abbreviations are the same as those used in Supplementary Table 1.

Investigators in Korea Acute Myocardial Infarction Registry (KAMIR) and Korea Working Group on Myocardial Infarction (KorMI)

Myung Ho Jeong, MD; Young Keun Ahn, MD; Sung Chull Chae, MD; Jong Hyun Kim, MD; Seung Ho Hur, MD; Yong Jo Kim, MD; In Whan Seong, MD; Dong Hoon Choi, MD; Jei Keon Chae, MD; Taek Jong Hong, MD; Jae Young Rhew, MD; Doo Il Kim, MD; In Ho Chae, MD; Jung Han Yoon, MD; Bon Kwon Koo, MD; Byung Ok Kim, MD; Myung Young Lee, MD; Kee Sik Kim, MD; Jin Youg Hwang, MD; Myeong Chan Cho, MD; Seok Kyu Oh, MD; Nae Hee Lee, MD; Kyung Tae Jeong, MD; Seung Jea Tahk, MD; Jang Ho Bae, MD; Seung Woon Rha, MD; Keum Soo Park, MD; Chong Jin Kim, MD; Kyoo Rok Ha, MD; Tae Hoon Ahn, MD; Moo Hyun Kim, MD; Ki Bae Seung, MD; Wook Sung Chung, MD; Ju Young Yang, MD; Chong Yun Rhim, MD; Hyeon Cheol Gwon, MD; Seong Wook Park, MD; Young Youp Koh, MD; Seung Jae Joo, MD; Soo Joong Kim, MD; Dong Kyu Jin, MD; Jin Man Cho, MD; Byung Ok Kim, MD; Sang-Wook Kim, MD; Jeong Kyung Kim, MD; Tae Ik Kim, MD; Dung young Nah, MD; Si Hoon Park, MD; Sang Hyun Lee, MD; Seung Uk Lee, MD; Hang-Jae Chung, MD; Jang Hyun Cho, MD; Seung Won Jin, MD; Yang Soo Jang, MD; Jeong Gwan Cho, MD and Seung Jung Park, MD.