

Supplementary Materials

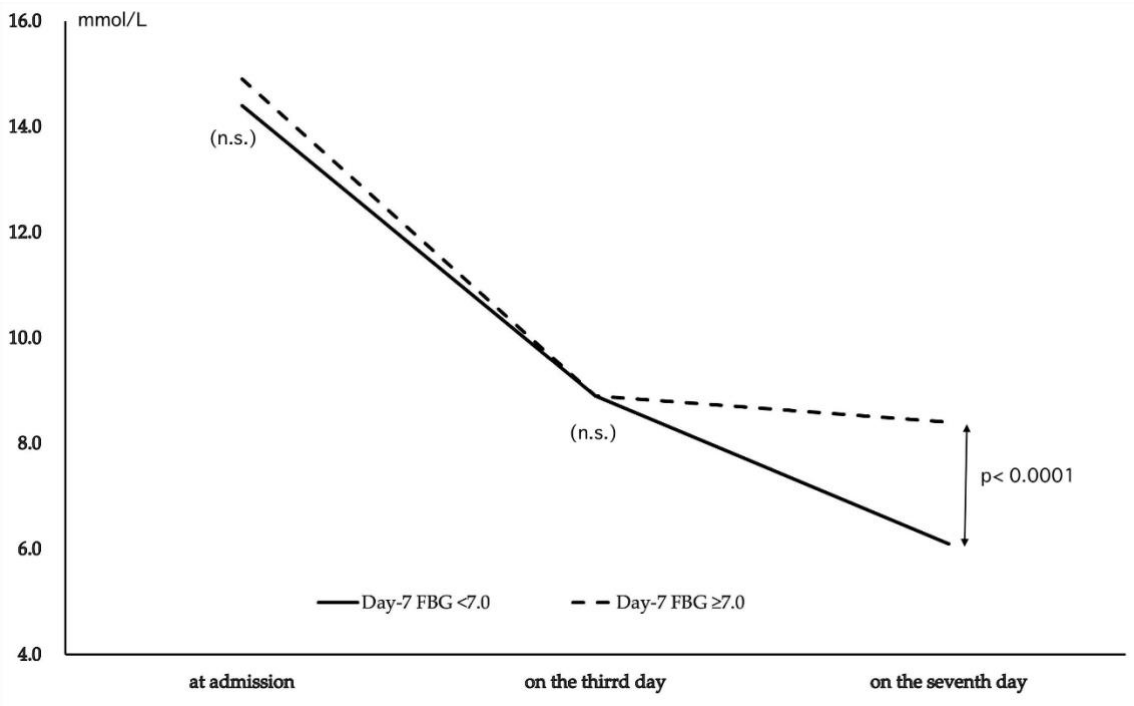


Figure S1. Serial changes of blood glucose levels in the Day-7 FBG <7.0 and Day-7 FBG ≥7.0 groups. FBG, fasting blood glucose; n.s., not significant; p, probability

Table S1. Stroke subtypes.

Classification	N
Transient ischemic attack	1
Small-vessel occlusion (lacune)	19
Large-artery atherosclerosis	17
Cardiogenic stroke	3
Stroke of undetermined etiology	8
Hypertensive intracerebral hemorrhage	3

N, number

Table S2. Diabetes medications used prior to admission.

N	51 (100%)
None	28 (54.9%)
DPP4	2 (3.9%)
SU	4 (7.8%)
Big	1 (2.0%)
Big+SU	3 (5.9%)
DPP4+Big	6 (11.8%)
DPP4+SU	2 (3.9%)
DPP4+Big+SU	3 (5.9%)
DPP4+SU+SGLT2i	1 (2.0%)
DPP4+Big+SU+ α GI	1 (2.0%)

α GI, alpha-glucosidase inhibitor; Big, biguanide; DPP4, dipeptidyl peptidase-4 inhibitors; N, number; SGLT2i, sodium-glucose cotransporter 2 inhibitors; SU, sulfonylurea

Table S3. Total energy-restriction diet for hospitalization.

Target total energy	A total energy-restricted diet
1,000 kcal ≤ target total energy < 1,200 kcal	1,000 kcal/day
1,200 kcal ≤ target total energy < 1,400 kcal	1,200 kcal/day
1,400 kcal ≤ target total energy < 1,600 kcal	1,400 kcal/day
1,600 kcal ≤ target total energy < 1,800 kcal	1,600 kcal/day
1,800 kcal ≤ target total energy < 2,000 kcal	1,800 kcal/day

Table S4. SGLT2i use during hospitalization.

SGLT2i	N
Luseogliflozin hydrate 2.5 mg per day	26
Dapagliflozin propylene glycolate hydrate 5 mg per day	17
Canagliflozin hydrate 100 mg per day	8
Total	51

N, number; SGLT2i, sodium-glucose cotransporter 2 inhibitors

Table S5. Diabetes medications except for SGLT2i used during hospitalization.

N	51 (100%)
None	9 (17.7%)
DPP4	16 (31.4%)
Big	1 (2.0%)
LIA	1 (2.0%)
DPP4+Big	11 (21.6%)
DPP4+ α GI	3 (5.9%)
DPP4+LIA	4 (7.8%)
DPP4+Big+ α GI	3 (5.9%)
DPP4+Big+LIA	3 (5.9%)

α GI, alpha-glucosidase inhibitor; Big, biguanide; DPP4, dipeptidyl peptidase-4 inhibitors; LIA, long-acting insulin analog; N, number; SGLT2i, sodium-glucose cotransporter 2 inhibitors

Table S6. Evaluation of groupwise changes in blood glucose levels by the Wilcoxon rank-sum test.

	Day-7 FBG <7.0	Day-7 FBG ≥7.0	<i>P</i> -value
BG at admission, mmol/L	14.4 (12.4, 17.1)	14.9 (12.5, 17.1)	n.s.
FBG on day 3, mmol/L	8.9 (7.3, 10.6)	8.9 (7.3, 10.4)	n.s.
FBG on day 7, mmol/L	6.1 (5.1, 6.5)	8.4 (7.5, 9.1)	< 0.0001

All values are presented as median (interquartile range). Boldface indicates significance. BG, blood glucose; Day-7 FBG, FBG level on day 7; FBG, fasting blood glucose; n.s., not significance; *P*, probability

Table S7. Evaluation of groupwise changes in blood glucose levels by the Wilcoxon signed-rank test.

Group	At admission		On day 3		On day 7
Day-7 FBG <7.0, mmol/L	14.4 (12.4, 17.1)	→	8.9 (7.3, 10.6)	→	6.1 (5.1, 6.5)
<i>P</i> -value		< 0.0001		< 0.0001	
Day-7 FBG ≥7.0, mmol/L	14.9 (12.5, 17.1)	→	8.9 (7.3, 10.4)	→	8.4 (7.5, 9.1)
<i>P</i> -value		< 0.0001		ns	

All values are presented as median (interquartile range). Boldface indicates significance.

FBG, fasting blood glucose

Table S8. Intergroup comparison of age, male sex, BMI, and biomarkers at admission.

	Day-7 FBG <7.0	Day-7 FBG ≥7.0	<i>P</i> -value
N	33	18	
Age, years	69 (62.5, 76)	74 (66.5, 79.3)	0.0473
Sex, n (%)	Male:25 (75.8%)	Male:12 (66.7%)	0.4905
	Female:8 (24.2%)	Female:6 (33.33%)	
BMI, kg/m ²	24.5 (23, 27.4)	23.4 (20.5, 27.3)	0.3696
Cre, mmol/L	72.5 (56.6, 83.5)	70.3 (60.1, 91.3)	0.5345
eGFR, mL·min ⁻¹ ·m ⁻² BSA	68.4 (63.0, 85.2)	65.2 (47.3, 81.8)	0.2489
hs-CRP, µg/L	1900 (500, 4750)	1800 (775, 3150)	0.9528

Boldface indicates significance. BMI, body mass index; BSA, body surface area; Cre, creatinine; Day-7 FBG, FBG level on day 7, mmol/L; eGFR, estimated glomerular filtration rate; FBG, fasting blood glucose; hs-CRP, high-sensitivity C-reactive protein; N, number, *P*, probability

Table S9. Intergroup comparison of DPP4, SU, Big, α GI, and SGLT2i use prior to admission.

	Day-7 FBG <7.0, mmol/L	Day-7 FBG \geq 7.0, mmol/L	P-value
N	33	18	
DPP4	7	8	0.0856
No DPP4	26	10	
SU	5	9	0.0085
No SU	28	9	
Big	8	6	0.4905
No Big	25	12	
α GI	1	0	0.3478
No α GI	32	18	
SGLT2i	0	1	0.1454
No SGLT2i	33	17	

Boldface indicates significance.

α GI, alpha-glucosidase inhibitor; Big, biguanide; Day-7 FBG, FBG level on day 7; DPP4, dipeptidyl peptidase-4 inhibitors; FBG, fasting blood glucose; N, number; SU, sulfonylurea

Table S10. Intergroup comparison of diabetes medications used during hospitalization except for SGLT2i.

	Day-7 FBG <7.0, mmol/L	Day-7 FBG ≥7.0, mmol/L	N (%)
N	33	18	51 (100%)
None	8	1	9 (17.6%)
DPP4	11	5	16 (31.4%)
Big	1	0	1 (2.0%)
DPP4+Big	7	4	11 (21.6%)
DPP4+ α GI	1	2	3 (5.9%)
DPP4+Big+ α GI	1	2	3 (5.9%)
LIA	1	0	1 (2.0%)
DPP4+LIA	2	2	4 (7.8%)
DPP4+Big+LIA	1	2	3 (5.9%)

α GI, alpha-glucosidase inhibitor; Big, biguanide; Day-7 FBG, FBG level on day 7; DPP4, dipeptidyl peptidase-4 inhibitors; FBG, fasting blood glucose; LIA, long-acting insulin analog; N, number

Table S11. Intergroup comparison of DPP4, Big, α GI, and LIA used during hospitalization.

	Day-7 FBG <7.0, mmol/L	Day-7 FBG \geq 7.0, mmol/L	P-value
N	33	18	
DPP4	23	17	0.0257
No DPP4	10	1	
Big	10	8	0.3155
No Big	23	10	
α GI	2	4	0.0951
No α GI	31	14	
LIA	4	4	0.3519
No LIA	29	14	

Boldface indicates significance.

α GI, alpha-glucosidase inhibitor; Big, biguanide; Day-7 FBG, FBG level on day 7; DPP4, dipeptidyl peptidase-4 inhibitors; FBG, fasting blood glucose; LIA, long-acting insulin analog; N, number

Table S12. Variance inflation factor of variables for multiple logistic regression analysis.

	VIF
Age	1.07
SU use	1.07

SU, sulfonylurea; VIF, variance inflation factor

Table S13. Multiple logistic regression for Day-7 FBG<7.0 using receiver operating characteristic curves (N=676).

	Odds ratio	<i>P</i> -value	AUC	BIC
		0.0084	0.736	68.5
Age	0.94 (0.86, 1.01)	0.1044		
SU use (0=no SU use, 1= SU use)	0.23 (0.05, 0.86)	0.0290		

AUC, area under the curve; BIC, Bayesian information criterion; Day-7 FBG, FBG level on day 7;

FBG, fasting blood glucose; *P*, probability; SU, sulfonylurea