

Supplemental Table 1: Associations between plasma glucose levels at hospital admission and adverse clinical outcomes stratified by diabetic status.

Group	Outcome	Plasma glucose (mg/dL)	Events/patients	Rate per 100 patient-years (95% CI)	Unadjusted HR or OR (95% CI)	Adjusted HR or OR (95% CI)
Diabetic patients	1-year all-cause death	≤125	232/823	28.2 (25.1-31.4)	Referent	Referent
		>125-180	317/1200	26.4 (23.9-29.0)	0.97 (0.82-1.15)	0.97 (0.79-1.20)
		>180	272/946	28.8 (25.9-31.8)	1.05 (0.88-1.25)	1.16 (0.94-1.44)
	1-year CVD death	≤125	137/823	16.6 (14.2-19.4)	Referent	Referent
		>125-180	177/1200	14.8 (12.8-16.9)	0.92 (0.74-1.15)	0.89 (0.67-1.19)
		>180	171/946	18.1 (15.7-20.7)	1.12 (0.89-1.40)	1.19 (0.90-1.57)
	In-hospital death	≤125	38/823	4.6 (3.3-6.3)	Referent	Referent
		>125-180	98/1200	8.2 (6.7-9.9)	1.84 (1.25-2.70)	1.79 (1.08-2.98)
		>180	73/946	7.7 (6.1-9.6)	1.73 (1.15-2.59)	1.81 (1.07-3.08)
1-year HF re-hospitalization	≤125	211/785	26.9 (23.8-30.1)	Referent	Referent	
	>125-180	263/1102	23.9 (21.4-26.5)	0.91 (0.76-1.10)	0.96 (0.80-1.16)	
	>180	199/873	22.8 (20.1-25.7)	0.84 (0.68-1.02)	0.94 (0.77-1.14)	
Non-diabetic patients	1-year all-cause death	≤98	348/1593	21.8 (19.8-24.0)	Referent	Referent
		>98-132	284/1165	24.4 (21.9-26.9)	1.14 (0.97-1.33)	1.12 (0.93-1.35)
		>132	0/0	NC	NC	NC
	1-year CVD death	≤98	199/1593	12.5 (10.9-14.2)	Referent	Referent
		>98-132	147/1165	12.6 (10.8-14.7)	1.03 (0.83-1.27)	0.97 (0.75-1.24)
		>132	0/0	NC	NC	NC
	In-hospital death	≤98	50/1593	3.1 (2.3-4.1)	Referent	Referent
		>98-132	52/1165	4.5 (3.4-5.8)	1.44 (0.97-2.14)	1.39 (0.92-2.09)
		>132	0/0	NC	NC	NC
	1-year HF re-hospitalization	≤98	332/1543	21.5 (19.5-23.7)	Referent	Referent
		>98-132	208/1113	18.7 (16.4-21.1)	0.87 (0.73-1.04)	0.83 (0.67-1.04)
		>132	0/0	NC	NC	NC

CI=confidence interval, HR=hazard ratio, OR=odds ratio, NA=Not applicable, NC=Not calculated.

Covariates for adjustment: age, sex, systolic blood pressure, eGFR_{MDRD}, LVEF, HF etiology and HF worsening/de novo presentation.

Cox regression analysis for 1-year death and 1-year re-hospitalization, logistic regression for in-hospital death are performed.

Note: In this table diabetic patients were stratified by clinically chosen cut-offs of plasma glucose levels (i.e., ≤125, 126-180 and >180 mg/dL), whereas non-diabetic patients were stratified by tertiles of plasma glucose levels of the whole cohort of patients (i.e., ≤98, 98-132 and >132 mg/dL) at hospital admission. It is important to underline that, as expected, for non-diabetic patients the maximum of plasma glucose levels was 125 mg/dL.

Supplemental Table 2: Associations between diabetes treatment (insulin vs. diet/oral drugs) at hospital admission and adverse clinical outcomes in the subgroup of patients with diabetes.

Group	Outcome	Diabetes Treatment	Events/patients	Rate per 100 patient-years (95% CI)	Age-adjusted HR or OR (95% CI)	Sex-adjusted HR or OR (95% CI)	Age- and Sex-adjusted HR or OR (95% CI)
Diabetic patients	1-year all-cause death	Treated with insulin	317/1064	29.8 (27.1-32.6)	Referent	Referent	Referent
		Treated with diet/oral drugs	221/962	23.0 (20.3-25.8)	0.69 (0.58-0.82)	0.71 (0.60-0.85)	0.69 (0.58-0.82)
	In-hospital death	Treated with insulin	69/1064	6.5 (5.1-8.1)	Referent	Referent	Referent
		Treated with diet/oral drugs	40/962	4.2 (3.0-5.6)	0.61 (0.41-0.90)	0.63 (0.42-0.93)	0.60 (0.40-0.90)
	1-year HF re-hospitalization	Treated with insulin	276/995	27.7 (25.0-30.6)	Referent	Referent	Referent
		Treated with diet/oral drugs	211/922	22.9 (20.2-25.7)	0.77 (0.64-0.93)	0.79 (0.65-0.95)	0.77 (0.64-0.93)

CI=confidence interval, HR=hazard ratio, OR=odds ratio, NA=Not applicable, NC=Not calculated.

Cox regression analysis for 1-year death and 1-year re-hospitalization, logistic regression for in-hospital death are performed.

Supplemental Table 3: Associations between patients with either reduced LVEF $\leq 45\%$ or with LVEF $> 45\%$ at hospital admission and adverse clinical outcomes stratified by diabetic status.

Group	Outcome	LVEF	Events/patients	Rate per 100 patient-years (95% CI)	Age-adjusted HR or OR (95% CI)	Sex-adjusted HR or OR (95% CI)	Age- and Sex-adjusted HR or OR (95% CI)
Diabetic patients	1-year all-cause death	LVEF $\leq 45\%$	481/1792	26.8 (24.8-29.0)	Referent	Referent	Referent
		LVEF $> 45\%$	145/709	20.5 (17.5-23.6)	0.61 (0.51-0.74)	0.71 (0.59-0.86)	0.62 (0.51-0.76)
	In-hospital death	LVEF $\leq 45\%$	109/1792	6.1 (5.0-7.3)	Referent	Referent	Referent
		LVEF $> 45\%$	25/709	3.5 (2.3-5.2)	0.48 (0.31-0.76)	0.52 (0.33-0.82)	0.46 (0.29-0.73)
	1-year HF re-hospitalization	LVEF $\leq 45\%$	384/1683	22.8 (20.8-24.9)	Referent	Referent	Referent
		LVEF $> 45\%$	126/684	18.4 (15.6-21.5)	0.80 (0.65-0.98)	0.84 (0.68-1.03)	0.81 (0.66-1.01)
Non-diabetic patients	1-year all-cause death	LVEF $\leq 45\%$	442/1899	23.3 (21.4-25.2)	Referent	Referent	Referent
		LVEF $> 45\%$	178/860	20.7 (18.0-23.6)	0.71 (0.60-0.85)	0.80 (0.67-0.96)	0.72 (0.60-0.86)
	In-hospital death	LVEF $\leq 45\%$	70/1899	3.7 (2.9-4.6)	Referent	Referent	Referent
		LVEF $> 45\%$	28/860	3.3 (2.2-4.7)	0.83 (0.53-1.30)	0.81 (0.51-1.29)	0.78 (0.49-1.24)
	1-year HF re-hospitalization	LVEF $\leq 45\%$	345/1829	18.9 (17.1-20.7)	Referent	Referent	Referent
		LVEF $> 45\%$	113/832	13.6 (11.3-16.1)	0.70 (0.56-0.88)	0.69 (0.55-0.88)	0.70 (0.55-0.88)

CI=confidence interval, HR=hazard ratio, LVEF=left ventricular ejection fraction; OR=odds ratio, NA=Not applicable, NC=Not calculated. Cox regression analysis for 1-year death and 1-year re-hospitalization, logistic regression for in-hospital death are performed.

Supplemental Table 4: Associations between patients with ischaemic HF etiology or with non-ischaemic HF aetiology at hospital admission and adverse clinical outcomes stratified by diabetic status.

Group	Outcome	HF etiology	Events/patients	Rate per 100 patient-years (95% CI)	Age-adjusted HR or OR (95% CI)	Sex-adjusted HR or OR (95% CI)	Age- and Sex-adjusted HR or OR (95% CI)
Diabetic patients	1-year all-cause death	Ischaemic heart disease	592/2173	27.2 (25.4-29.2)	Referent	Referent	Referent
		Non-ischaemic heart disease	343/1240	27.7 (25.2-30.2)	0.95 (0.83-1.08)	1.03 (0.90-1.17)	0.97 (0.85-1.11)
	In-hospital death	Ischaemic heart disease	147/2173	6.8 (5.7-7.9)	Referent	Referent	Referent
		Non-ischaemic heart disease	83/1240	6.7 (5.4-8.2)	0.92 (0.70-1.22)	0.97 (0.73-1.28)	0.92 (0.69-1.23)
	1-year HF re-hospitalization	Ischaemic heart disease	446/2026	22.0 (20.2-23.9)	Referent	Referent	Referent
		Non-ischaemic heart disease	295/1157	25.5 (23.0-28.1)	1.23 (1.06-1.43)	1.28 (1.10-1.49)	1.26 (1.08-1.46)
Non-diabetic patients	1-year all-causes death	Ischaemic heart disease	380/1699	22.4 (20.4-24.4)	Referent	Referent	Referent
		Non-ischaemic heart disease	445/1770	25.1 (23.1-27.2)	1.20 (1.05-1.38)	1.17 (1.02-1.34)	1.24 (1.08-1.42)
	In-hospital death	Ischaemic heart disease	66/1699	3.9 (3.0-4.9)	Referent	Referent	Referent
		Non-ischaemic heart disease	86/1769	4.9 (3.9-6.0)	1.30 (0.93-1.80)	1.20 (0.86-1.68)	1.25 (0.90-1.75)
	1-year HF re-hospitalization	Ischaemic heart disease	305/1633	18.7 (16.8-20.7)	Referent	Referent	Referent
		Non-ischaemic heart disease	315/1684	18.7 (16.9-20.7)	1.04 (0.88-1.23)	1.06 (0.89-1.25)	1.07 (0.90-1.27)

CI=confidence interval, HR=hazard ratio, OR=odds ratio, NA=Not applicable, NC=Not calculated

Cox regression analysis for 1-year death and 1-year re-hospitalization, logistic regression for in-hospital death are performed