

**Supplementary Table 4.** Risk factors associated with higher HbA1c variability during follow-up (CAN was diagnosed using three parasympathetic CARTs)

Variable	OR (95% CI)		
	Model 1	Model 2	Model 3
<b>Higher HbA1c-SD</b>			
CAN (vs. normal group)	1.42 (1.04–1.9) <sup>a</sup>	1.47 (1.03–2.10) <sup>a</sup>	1.52 (1.05–2.18) <sup>a</sup>
Age (per 1 yr increment)	0.97 (0.95–0.98) <sup>b</sup>	0.98 (0.96–1.00)	0.97 (0.94–0.99) <sup>b</sup>
Sex (male vs. female)	1.20 (0.87–1.65)	1.01 (0.70–1.45)	1.08 (0.74–1.57)
BMI (per 1 kg/m <sup>2</sup> increment)	1.08 (1.03–1.14) <sup>b</sup>	1.07 (1.01–1.14) <sup>a</sup>	1.07 (1.00–1.13) <sup>a</sup>
Duration of diabetes (per 1 yr increment)		0.98 (0.95–1.01)	0.96 (0.93–0.99) <sup>a</sup>
Mean of serial HbA1c (per 1% increment)		8.49 (5.60–12.86) <sup>b</sup>	8.35 (5.42–12.87) <sup>b</sup>
Heart rate (per 1 beats/min increment)			1.02 (1.00–1.03) <sup>a</sup>
eGFR (per 1 mL/min/1.73 m <sup>2</sup> increment)			1.00 (0.99–1.01)
Diabetic retinopathy (yes vs. no)			2.11 (1.33–3.35) <sup>b</sup>
Coronary artery disease (yes vs. no)			2.00 (1.01–3.96) <sup>a</sup>
Diabetes treatment (insulin use vs. no)			1.01 (0.55–1.84)
Hypertension medication (yes vs. no)			1.34 (0.91–1.98)
<b>Higher HbA1c-CV</b>			
CAN (vs. normal group)	1.27 (0.93–1.73)	1.25 (0.90–1.75)	1.28 (0.91–1.79)
Age (per 1 yr increment)	0.97 (0.95–0.99) <sup>b</sup>	0.98 (0.96–1.00)	0.97 (0.95–0.99) <sup>a</sup>
Sex (male vs. female)	1.19 (0.86–1.64)	1.03 (0.73–1.46)	1.09 (0.76–1.56)
BMI (per 1 kg/m <sup>2</sup> increment)	1.06 (1.01–1.12) <sup>a</sup>	1.05 (0.99–1.11)	1.04 (0.99–1.10)
Duration of diabetes (per 1 yr increment)		0.99 (0.96–1.01)	0.98 (0.95–1.00)
Mean of serial HbA1c (per 1% increment)		4.41 (3.12–6.22) <sup>b</sup>	4.28 (2.99–6.11) <sup>b</sup>
Heart rate (per 1 beats/min increment)			1.02 (1.00–1.03) <sup>a</sup>
eGFR (per 1 mL/min/1.73 m <sup>2</sup> increment)			1.00 (0.99–1.01)
Diabetic retinopathy (yes vs. no)			1.79 (1.16–2.75) <sup>b</sup>
Coronary artery disease (yes vs. no)			2.24 (1.17–4.29) <sup>a</sup>
Diabetes treatment (insulin use vs. no)			0.83 (0.48–1.45)
Hypertension medication (yes vs. no)			1.18 (0.82–1.71)
<b>Higher adjusted-HbA1c-SD</b>			
CAN (vs. normal group)	1.38 (1.01–1.89) <sup>a</sup>	1.43 (1.00–2.04) <sup>a</sup>	1.47 (1.02–2.12) <sup>a</sup>
Age (per 1 yr increment)	0.97 (0.95–0.98) <sup>b</sup>	0.98 (0.96–1.00)	0.97 (0.94–0.99) <sup>b</sup>
Sex (male vs. female)	1.22 (0.89–1.69)	1.04 (0.72–1.50)	1.11 (0.76–1.63)
BMI (per 1 kg/m <sup>2</sup> increment)	1.08 (1.02–1.13) <sup>b</sup>	1.07 (1.01–1.13) <sup>a</sup>	1.06 (1.00–1.12)
Duration of diabetes (per 1 yr increment)		0.98 (0.96–1.01)	0.96 (0.94–0.99) <sup>a</sup>
Mean of serial HbA1c (per 1% increment)		8.73 (5.74–13.26) <sup>b</sup>	8.57 (5.55–13.23) <sup>b</sup>
Heart rate (per 1 beats/min increment)			1.02 (1.00–1.03) <sup>a</sup>
eGFR (per 1 mL/min/1.73 m <sup>2</sup> increment)			1.00 (0.99–1.01)
Diabetic retinopathy (yes vs. no)			1.98 (1.25–3.15) <sup>b</sup>
Coronary artery disease (yes vs. no)			2.02 (1.02–4.00) <sup>a</sup>
Diabetes treatment (insulin use vs. no)			1.01 (0.55–1.84)
Hypertension medication (yes vs. no)			1.37 (0.93–2.03)

CAN was defined as the presence of at least one abnormal results of parasympathetic tests. Model 1: adjusted for age, sex, and BMI; Model 2: adjusted for model 1+diabetes duration and mean serial HbA1c; Model 3: adjusted for model 2+heart rate, eGFR, diabetic retinopathy, coronary artery disease, diabetes treatment (insulin use), and use of hypertension medication.

HbA1c, glycosylated hemoglobin; CAN, cardiovascular autonomic neuropathy; CART, cardiovascular autonomic reflex test; OR, odds ratio; CI, confidence interval; SD, standard deviation; BMI, body mass index; eGFR, estimated glomerular filtration rate; CV, coefficient of variation.

<sup>a</sup> $P < 0.05$ , <sup>b</sup> $P < 0.01$ .