

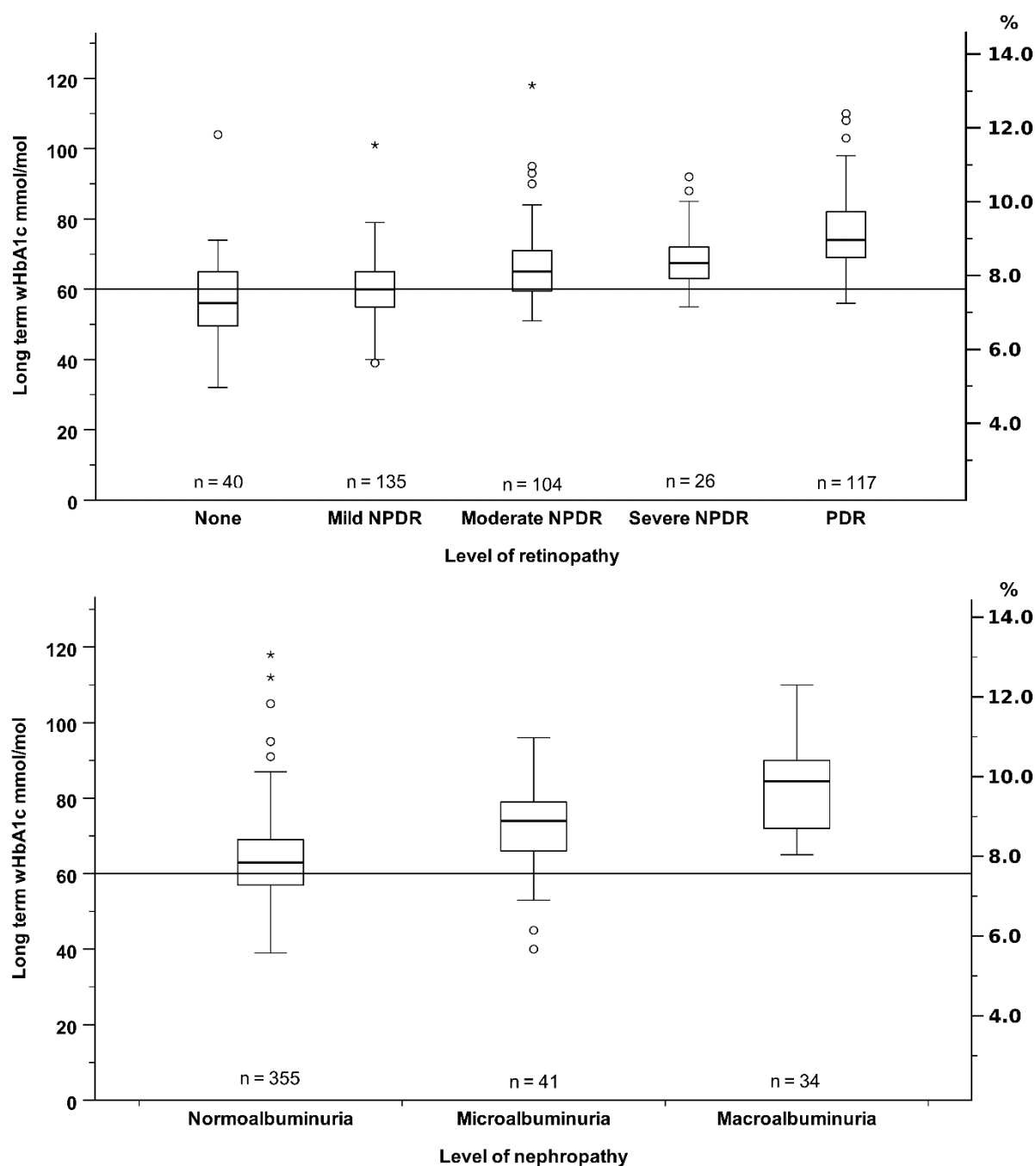


Figure S1 HbA1c range in the VISS cohort of patients with type 1 diabetes. Boundaries of box plots show quartiles, whiskers show nonoutlier range, unfilled circles show outlier and asterisk shows extremes. **A.** Different levels of retinopathy, diabetes duration 32(24;34) (median, IQR) years, range 6-36 years. The three patients with no to moderate retinopathy and

very high wHbA1c, >11.3% (>100 mmol/mol) had diabetes durations <16 years. **B.** Different levels of albuminuria, diabetes duration 33(31; 35) (median; IQR) years, range 8-36 years.

Supplemental Table S1 Data for BMI, blood pressure and lipids at the last follow up in relation to diabetic retinopathy and nephropathy in the VISS cohort 32-36 years after diabetes diagnosis.

Retinopathy					Nephropathy					
Variable	n	None/ NPDR*	PDR†	P value‡	Variable	n	Normo- albuminuria	Micro- albuminuria	Macro- albuminuria	P value‡
BMI (kg/ m ²)	430	26.6 ± 4.5	28.3 ± 5.7	0.001	BMI (kg/ m ²)	429	27.0 ± 4.8	28.3 ± 6.2	26.2 ± 5.1	0.136
Systolic blood pressure (mm Hg)	431	126 ± 13	130 ± 14	0.019	Systolic blood pressure (mm Hg)	430	126 ± 12	132 ± 16	135 ± 16	< 0.001
Diastolic blood pressure (mm Hg)	431	73 ± 8	75 ± 10	0.117	Diastolic blood pressure (mm Hg)	430	74 ± 9	73 ± 10	75 ± 10	0.680
Cholesterol (mg/dl)	424	174± 35	178 ± 43	0.422	Cholesterol (mg/dl)	422	174± 35	174 ± 39	182 ± 50	0.589
Triglycerides (mg/dl)	409	89 ± 44	133 ± 89	< 0.001	Triglycerides (mg/dl)	407	89 ± 53	115 ± 62	168 ± 89	< 0.001
HDL Cholesterol (mg/dl)	424	66 ± 19	58 ± 19	<0.001	HDL Cholesterol (mg/dl)	422	62 ± 19	58 ± 19	54 ± 19	0.009
LDL Cholesterol (mg/dl)	414	97 ± 27	104 ± 39	0.16	LDL cholesterol (mg/dl)	412	97 ± 31	93 ± 31	108 ± 43	0.074

*NPDR = non proliferative diabetic retinopathy; †PDR = proliferative diabetic retinopathy; ‡P values are based on two sample *t* test or one- way ANOVA with Bonferroni post hoc test. To covert from mg/dl to mmol/l for cholesterol multiply with 0.02586, for triglycerides with 0.01129.

Supplemental Table S2. Prevalence of eGFR < 60 ml/min/1.73m² and eGFR ≥ 60 ml/min/1.73m² in different wHbA1c*categories and for different levels of albuminuria.

	wHbA1c* categories NGSP % (IFCC mmol/mol)						
eGFR	≤ 6.7 (≤50)	6.8-7.6 (51-60)	7.7-8.6 (61-70)	8.7-9.5 (71-80)	> 9.5 (>80)	All	P value†
	n(%)	n(%)	n(%)	n(%)	n(%)	n	
<60 ml/min/1.73m²						39	
Normoalbuminuria	1(13)	3(38)	0	2(25)	2(25)	8	
Microalbuminuria	0	0	1(14)	3(43)	3(43)	7	
Macroalbuminuria	0	0	4(17)	9(38)	11(46)	24	
All	1(3)	3(8)	5(13)	14(36)	16(41)	39	< 0.001
≥60 ml/min/1.73m²							
Normoalbuminuria	26(8)	116(34)	144(42)	49(14)	8(2)	377	
Microalbuminuria	2(6)	4(12)	11(32)	12(35)	5(15)		
Macroalbuminuria	0	0	3(33)	3(33)	3(33)	9	
All	28(7)	120(31)	158(41)	64(17)	16(4)	386	< 0.001
Total	29(7)	123(29)	163(38)	78(18)	32(8)	425	

* wHbA1c long term weighted mean HbA1c.† Crosstabulation between the last reported eGFR values and wHbA1c categories at the end of the follow up. Statistic test chi square.