



Appendix

**This appendix was part of the submitted manuscript and has been peer reviewed.
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Appendix to: White M, Sabin MA, Magnussen CG, et al. Long term risk of severe retinopathy in childhood-onset type 1 diabetes: a data linkage study. *Med J Aust* 2017; 206: 398-401. doi: 10.5694/mja16.00712.

Appendix. Associations of mean HbA_{1c}, and HbA_{1c} variability (standard deviation) in pediatric and adult settings with odds of retinopathy in adulthood

	Severe retinopathy								
	Model 1			Model 2			Model 3		
	OR	95%CI	P value	OR	95%CI	P value	OR	95%CI	P value
Mean HbA_{1c} in childhood, 10.9 mmol/mol	2.4	1.5-4.0	0.001	-	-	-	3.2	1.5-7.5	0.004
Mean HbA_{1c} in adulthood, 10.9 mmol/mol	-	-	-	1.6	0.9-2.6	0.09	2.6	1.2-5.8	0.02
Paediatric HbA_{1c} standard deviation CoV	0.5	0.1-1.9	0.3	-	-	-	0.2	0.03-1.2	0.08
Adult HbA_{1c} standard deviation CoV	-	-	-	3.3	1.0-1.8	0.04	1.8	0.5-6.3	0.4
Duration of type 1 diabetes, years	1.2	1.0-1.4	0.01	1.4	1.1-1.8	0.003	1.4	1.1-1.9	0.01
Female sex	1.1	0.2-5.3	0.9	0.9	0.2-4.9	1.0	0.4	0.05-2.8	0.3
Age at diagnosis, years	1.2	0.9-1.5	0.1	1.3	0.9-1.8	0.06	1.3	0.9-1.7	0.2
Age at transition, years	0.9	0.5-1.8	0.8	0.9	0.4-2.0	0.04	0.1	0.4-2.7	0.97

Abbreviations: OR, odds ratio; CI, confidence interval

In each logistic regression model, associations with the independent variable were mutually adjusted for the other variables. Model 1: examines the associations for childhood mean HbA_{1c} and HbA_{1c} standard deviation co-efficient of variation (CoV) without the equivalent adult variables included in the model; Model 2: examines the associations for adult mean HbA_{1c} and HbA_{1c} standard deviation CoV without the equivalent childhood variables included in the model; Model 3: examines the independent associations for each of childhood mean HbA_{1c} , childhood HbA_{1c} standard deviation CoV,, adult mean HbA_{1c} and adult HbA_{1c} standard deviation CoV.