

## Misleading HbA1c Measurement in Diabetic Patients with Hemoglobin Variants

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**Table S1.** Demographic data of patients

Characteristics	Values
Sex (N)	
Male	385 (45.4%)
Female	461 (54.6%)
Age (mean± SD), years	58.6 ± 14.6
Fasting blood sugar (mean± SD), mg/dl	153.0 ± 85.8
HbA1c (mean± SD), %	
CE	8.3± 2.8
TINIA	8.6± 2.6
Hematology parameter (mean± SD)	
Red blood cell count, ×10 <sup>6</sup> cells/ul	4.4±0.9
Hemoglobin (Hb), g/dl	11.8±2.8
Hematocrit (Hct), %	35.3±6.8
Mean corpuscular volume (MCV), fl	80.6±8.6
Mean corpuscular hemoglobin (MCH), pg	27.9±3.2
Mean corpuscular hemoglobin concentration (MCHC), g/dl	33.5±1.7

**Table 2.** Pearson correlation blood parameters in patients with diabetes.

	A1C (TINIA)	A1C (CE)	%HbA	%HbA2	%HbE	%HbF	RBC count	Hb	Hct	MCV	MCH	MCHC
FPG	r = 0.517 p < 0.001	r = 0.493 p < 0.001	r = 0.001 p = 0.994	r = 0.017 p = 0.627	r = -0.037 p = 0.488	r = 0.172 p = 0.056	r = 0.040 p = 0.250	r = 0.007 p = 0.841	r = -0.011 p = 0.756	r = -0.062 p = 0.076	r = -0.002 p = 0.960	r = 0.119 p < 0.001
A1C-Roche	-	r = 0.905 p < 0.001	r = 0.023 p = 0.497	r = -0.007 p = 0.844	r = -0.050 p = 0.350	r = 0.176 p = 0.051	r = 0.193 p < 0.001	r = 0.112 p = 0.001	r = 0.121 p < 0.001	r = -0.117 p < 0.001	r = -0.093 p < 0.001	r = 0.028 p = 0.414
A1C-CE	-	-	r = 0.273 p < 0.001	r = -0.146 p < 0.001	r = -0.426 p < 0.001	r = 0.108 p = 0.236	r = 0.146 p < 0.001	r = 0.139 p < 0.001	r = 0.152 p < 0.001	r = 0.012 p = 0.738	r = 0.026 p = 0.459	r = 0.036 p = 0.305
%HbA	-	-	-	r = -0.359 p < 0.001	r = -0.993 p < 0.001	r = -0.072 p = 0.429	r = -0.172 p < 0.001	r = 0.101 p = 0.004	r = 0.117 p < 0.001	r = 0.508 p < 0.001	r = 0.454 p < 0.001	r = -0.021 p = 0.550
%HbA2	-	-	-	-	r = 0.766 p < 0.001	r = 0.115 p = 0.203	r = 0.065 p = 0.059	r = -0.050 p = 0.151	r = -0.067 p = 0.055	r = -0.225 p < 0.001	r = -0.197 p < 0.001	r = 0.024 p = 0.496
%HbE	-	-	-	-	-	r = 0.235 p < 0.001	r = 0.217 p < 0.001	r = -0.101 p = 0.064	r = -0.095 p = 0.080	r = -0.586 p < 0.001	r = -0.541 p < 0.001	r = 0.001 p = 0.999
%HbF	-	-	-	-	-	-	r = 0.005 p = 0.961	r = -0.138 p = 0.137	r = -0.124 p = 0.137	r = -0.212 p < 0.001	r = -0.226 p < 0.001	r = -0.047 p = 0.613
RBC count	-	-	-	-	-	-	-	r = 0.674 p < 0.001	r = 0.839 p < 0.001	r = -0.300 p < 0.001	r = -0.343 p < 0.001	r = -0.166 p < 0.001
Hb	-	-	-	-	-	-	-	-	r = 0.806 p < 0.001	r = 0.201 p < 0.001	r = 0.215 p < 0.001	r = 0.088 p = 0.011
Hct	-	-	-	-	-	-	-	-	-	r = 0.245 p < 0.001	r = 0.134 p < 0.001	r = -0.168 p < 0.001
MCV	-	-	-	-	-	-	-	-	-	-	r = 0.889 p < 0.001	r = 0.026 p = 0.454
MCH	-	-	-	-	-	-	-	-	-	-	-	r = 0.472 p < 0.001