Online supplementary material for

Performance of Dexcom G5 and Freestyle Libre tested simultaneously in persons with type 1 or 2 diabetes and advanced chronic kidney disease.

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Power analysis

From a previous also paired study from the current research group the SD of difference between the Dexcom G4 and Enlite Sensor for the MARD was 6%. Assuming a mean difference in MARD in the current study (also a paired study) between Abbot Freestyle Libre sensor and the Dexcom G5 sensor of 4% and the same SD for difference as observed previously, 22 patients would be needed to reach the power of 80% with an alpha significance level of 0.05. Taking into account a dropout rate of 10%, 25 patients would be needed. Using a more conservative SD of 8% 36 patients would be needed to reach the same power, alpha significance level and difference in MARD, 40 patients when taking drop-out rate of 10% into account. For the corresponding example but with 90% power 51 patients would be needed. The sample size calculations are performed by using two-sided Wilcoxon Signed Rank test.

Table S1 *Bland-Altman analyses with limits of agreement, distributions of the differences test of systematic differences between the methods and Intraclass correlation coefficient*

|					Intraclass Correlation Coefficient (ICC)
			Difference New Method - HemoCue		
Variable	**HemoCue Mean (SD) Median (Min; Max) n=**	**New Method Mean (SD) Median (Min; Max) n=**	**Mean (95% CI Limits of Agreement) (SD) Median (Min; Max) n=**	**Systematic changes p-value**	**Shrout-Fleiss reliability: random set**
Freestyle libre	9.19 (2.05) 9.42 (5.63; 15.87) n=33	8.08 (1.79) 8.33 (4.38; 11.39) n=33	-1.10 (-3.54; 1.34) (1.24) -1.46 (-4.48; 1.63) n=33	<.0001	0.68
Dexcom G5	9.19 (5.17; 13.21) (2.05) 9.42 (5.63; 15.87) n=33	9.08 (5.67; 12.49) (1.74) 9.39 (5.48; 13.40) n=33	-0.11 (-1.94; 1.73) (0.94) -0.23 (-2.47; 3.01) n=33	0.0521	0.88
Wilcoxon Signed Rank test is used to test the difference. For continuous variables Mean (95% CI, Limits of Agreement) / (SD) / Median (Min; Max) / n= is presented.					

Figure S1 *Bland-Altman plot, scatterplot difference vs mean a) all mean measurements (FAS): Freestyle Libre vs HemoCue b) all mean measurements (FAS): Dexcom G5 vs HemoCue*
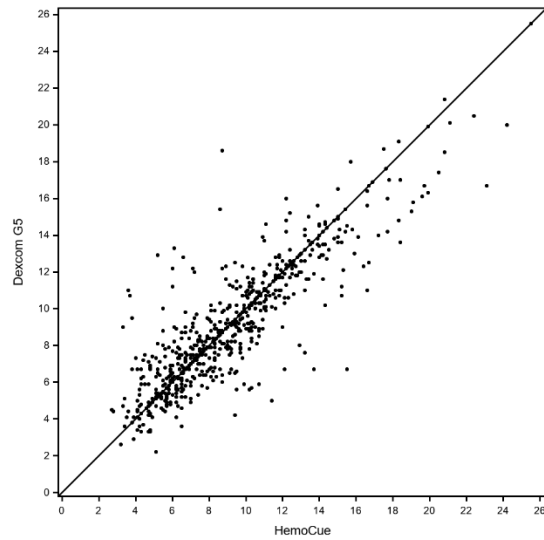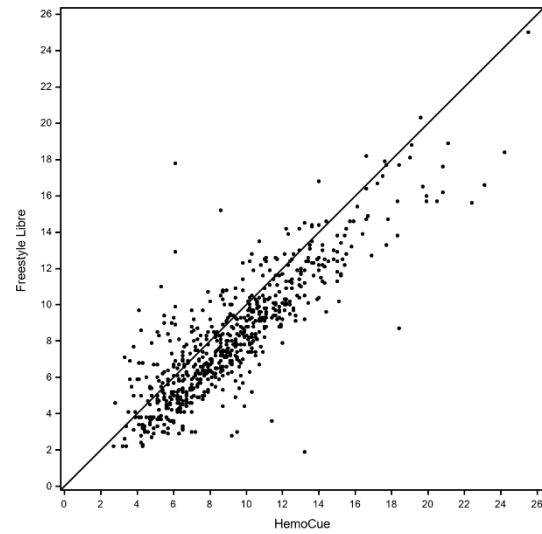
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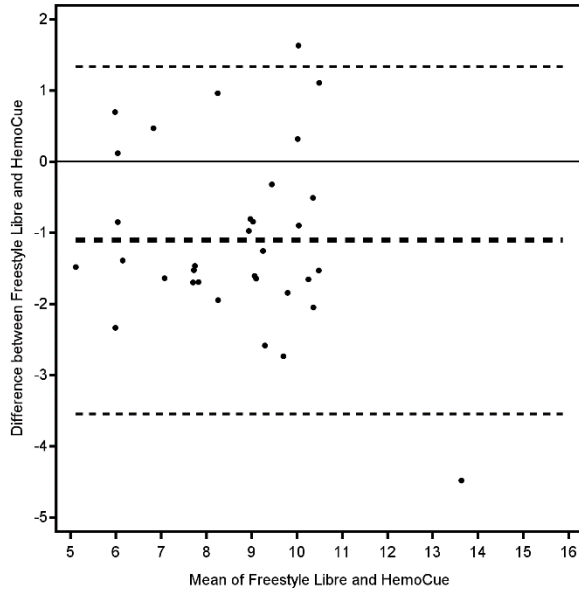
Dotted lines are Mean and Limits of agreement

b)
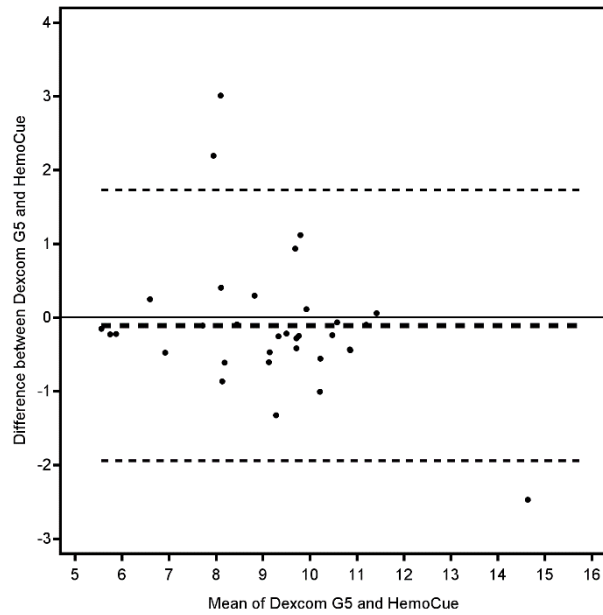
Dotted lines are Mean and Limits of agreement

Figure S2 *Correlations between devices.*
All Individual measurements a) Libre
values versus HemoCue values b) Dexcom
G5 values versus HemoCue values c) Libre
values versus Dexcom G5 values. - The
line in the figure is the identity y=x

a

b

c