

## Supplementary Data

SUPPLEMENTARY TABLE S1. PATIENT DISPOSITION (N=46)

	Total	Group I	Group II	Group III
Enrolled	46	20	20	6
Completed	38	14	20	4
Withdrawn	8	6	0	2
Protocol violation	2	1 <sup>a</sup>		1 <sup>b</sup>
Consent withdrawn	6	5		1

<sup>a</sup>One patient was unable to be consistent in carbohydrate counting techniques.

<sup>b</sup>One patient was withdrawn due to not meeting glycosylated hemoglobin inclusion criteria.

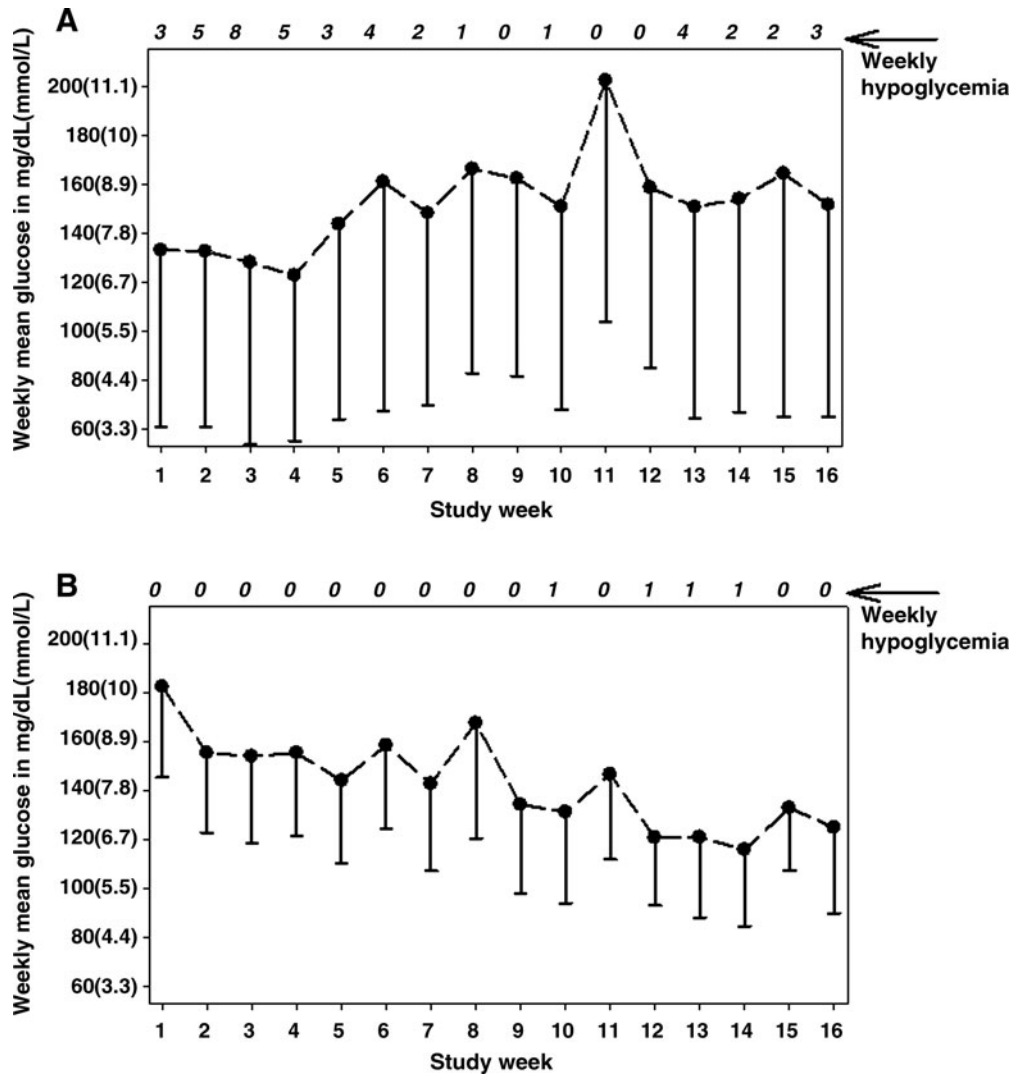
SUPPLEMENTARY TABLE S2. INSULIN DOSE AND CHANGE IN EFFICACY VARIABLES

	Total (n=46)	Group I (n=20)	Group II (n=20)	Group III (n=6)
Weekly mean blood glucose (mg/dL) [mmol/L]				
Week 4	172.4 (35.0) [9.6 (1.9)]	176.9 (28.3) [9.8 (1.6)]	164.9 (37.6) [9.2 (2)]	190.8 (47.0) [10.6 (2.6)]
Week 16	163.3 (35.1) [9 (1.9)] <sup>†</sup>	173.2 (26.9) [9.6 (1.5)]	156.8 (40.5) [8.7 (2.2)]	161.3(30.0) [8.9(1.7)] <sup>†</sup>
HbA1c (%)				
Baseline	8.9 (1.1)	8.9 (0.9)	8.8 (0.8)	9.0 (2.1)
Week 4	8.4 (0.8)*	8.4 (0.6)*	8.3 (0.8)*	9.1 (1.5)
Week 16	7.9 (0.9)* <sup>†</sup>	8.3 (0.8)	7.7 (0.9)* <sup>†</sup>	7.8 (1.4)
Fructosamine (μM)				
Baseline	330 (65)	377 (59)	295 (44)	289 (41)
Week 4	303 (53)*	349 (46)*	273 (30)*	270 (33)
Week 16	293 (64)*	355 (46)*	263 (45)*	233 (25) <sup>†</sup>
Daily insulin dose (units)				
Baseline	80.8 (42.2) [0.7 (0.4) units/kg]	54.4 (23.3) [0.6 (0.2) units/kg]	106.7 (40.7) [0.9 (0.3) units/kg]	97.1 (44.9) [0.8 (0.4) units/kg]
Week 4	81.9 (42.5) [0.7 (0.6) units/kg]	52.9 (21.7) [0.6 (0.2) units/kg]	108.7 (40.0) [0.9 (0.3) units/kg]	80.8 (29.0) [0.7 (0.2) units/kg]
Week 16	112.4 (69.4) [1.0 (0.4) units/kg] <sup>*†</sup>	51.7 (21.7) [0.5 (0.2) units/kg]	150.7 (65.8) [1.2 (0.5) units/kg] <sup>*†</sup>	133.0 (48.6) [1.1 (0.4) units/kg]
Basal/bolus insulin ratio (Groups I and II)				
Baseline	0.49 (0.1)	0.51 (0.1)	0.48 (0.1)	
Week 4	0.5 (0.1)	0.51 (0.1)	0.5 (0.1)	
Week 16	0.45 (0.1) <sup>†</sup>	0.46 (0.1)	0.44 (0.1) <sup>†</sup>	

Data are mean (SD) values.

\*P<0.05 compared with baseline; <sup>†</sup>P<0.05 compared with Week 4.

HbA1c, glycosylated hemoglobin.



**SUPPLEMENTARY FIG. S1.** Examples of two patients with different glycemic profiles. The numbers at the top of each panel represent the number of minor hypoglycemic episodes per week. The regression line was not plotted because of the limited data points. (A) A 49-year-old man with type 1 diabetes in Group I. The frequency of hypoglycemia was high, and thus weekly mean glucose could not have improved. (B) A 57-year-old woman with type 2 diabetes in Group II. Initial weekly mean glucose exceeded the therapy goal, and infrequent hypoglycemia enabled improvement in weekly mean glucose.