

Sustained Benefit of Continuous Glucose Monitoring on HbA1c, Glucose Profiles, and Hypoglycemia in Adults with Type 1 Diabetes

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Appendix Table 1 (Website).**Baseline Factors Predictive of Sensor Use \geq 6 days Per Week During Month Six of the Trial According to Age Group**

	8-<15 years		15-<25 years		\geq25 years	
	N	% \geq 6 days	N	% \geq 6 days	N	% \geq 6 days
Total	74	46%	72	29%	86	79%
Gender						
Female	37	57%	38	29%	48	77%
Male	37	35%	34	29%	38	82%
Race/Ethnicity						
Non-White	7	43%	12	17%	0	
White, Non-Hispanic	67	46%	60	32%	86	79%
Duration of Diabetes (years)						
< 5	30	43%	15	33%	3	67%
5-<10	35	49%	27	30%	8	100%
10-<20	9	44%	30	27%	22	68%
\geq 20	0		0		53	81%
Baseline Insulin Modality						
MDI	10	30%	22	23%	10	60%
Pump	64	48%	50	32%	76	82%
Baseline HbA1c						
\geq 8.0%	27	44%	26	23%	10	60%
7.0%- <8.0%	29	45%	31	23%	42	81%
<7.0%	18	50%	15	53%	34	82%
Severe Hypoglycemia in Last 6 Months						
None	71	48%	65	28%	75	77%
\geq 1 episode	3	0%	7	43%	11	91%
Self-reported Home Blood Glucose Meter Measurements Per Day*						
3-5	16	13%	31	16%	21	57%
6-8	34	53%	26	27%	44	86%
\geq 9	12	50%	4	50%	15	87%
Education Level of Primary Caregiver[†]						
\leq 12	2	50%	22	14%	2	50%
Associate	8	38%	6	50%	9	78%
Bachelor	32	53%	21	38%	37	81%
Master	21	38%	14	36%	30	77%
Professional	11	45%	9	22%	8	88%
Household Income[‡]						
\$25,000 or less	2	50%	12	17%	2	50%
\$25,001 to \$50,000	3	67%	13	46%	11	45%
\$50,001 to \$100,000	24	58%	14	43%	36	78%
Over \$100,000	37	35%	24	25%	34	91%

*Collected on randomization form, as assessed by clinic personnel over the last 7 days. Question was added to CRF after study initialization and data were missing for 29 subjects in RT-CGM group.

[†] Education level is for parent/guardian for subjects <15 years old and for the subject for age \geq 25 years. For subjects in the 15 to 24 age group, education level is that of the subject for 28, for the subject's spouse for 1, and the parent for 43.

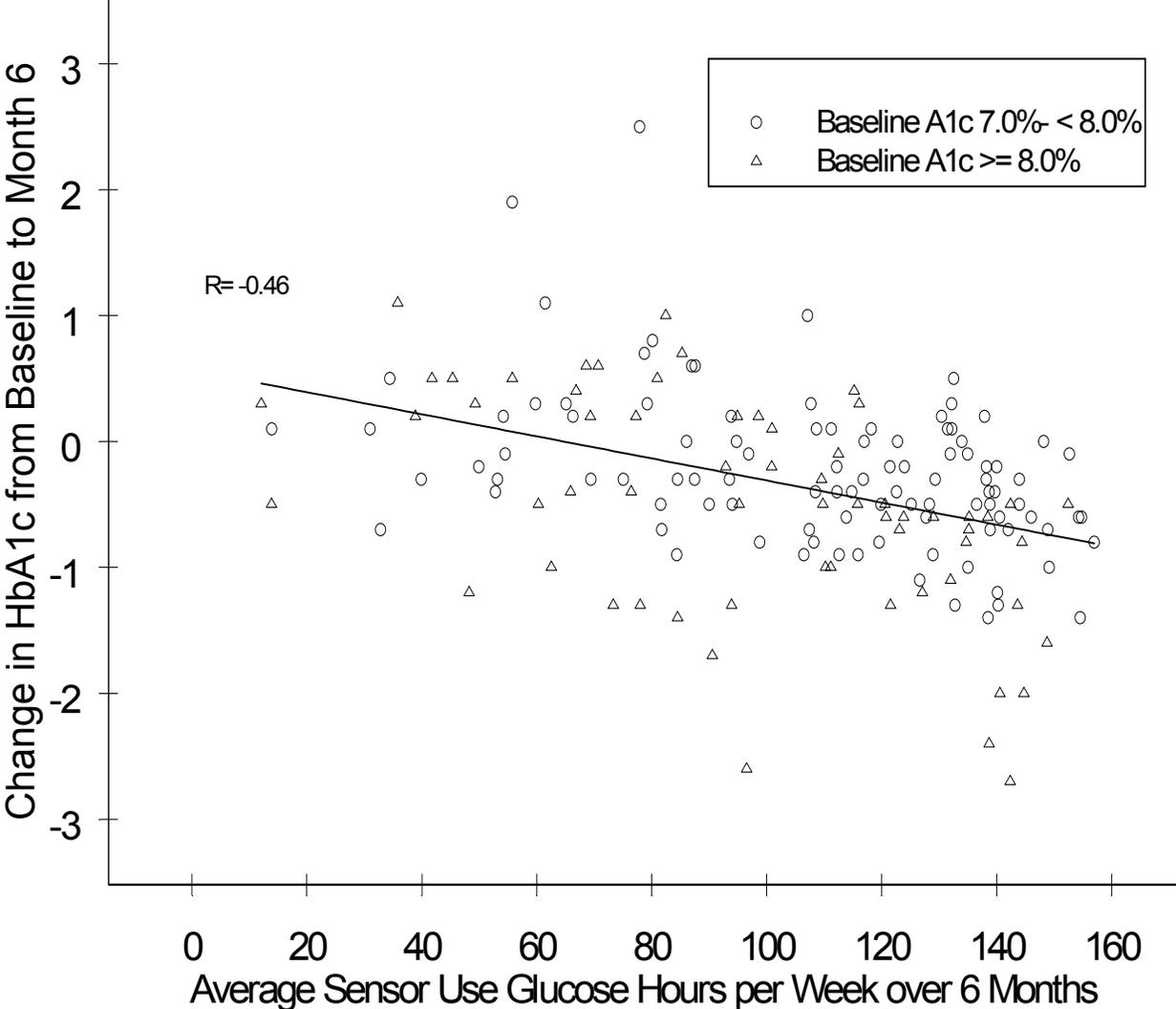
[‡]20 subjects did not provide household income data. In the 15 to 24 year age group, household income reflects the subject in 35 and parent in 37.

Appendix Table 2. Association of First Month CGM Use and CGM Glucose Indices with CGM Use During Month 6 According to Age Group

	8-<15 years		15-<25 years		≥25 years	
	N*	% ≥6 days in Month 6	N	% ≥6 days in Month 6	N	% ≥6 days in Month 6
Total	73	47%	72	29%	86	79%
Sensor Use during First 7 Days						
0-7	10	40%	11	18%	6	50%
7	63	48%	61	31%	80	81%
Sensor Use during First 14 Days						
4-13	16	50%	24	21%	13	46%
14	57	46%	48	33%	73	85%
Sensor Use during First 21 Days						
7-17	9	44%	11	27%	7	29%
18-20	15	47%	26	15%	12	58%
21	49	47%	35	40%	67	88%
Sensor Use during First 28 Days						
7-23	14	29%	16	19%	9	44%
24-26	9	44%	18	11%	7	57%
27-28	50	52%	38	42%	70	86%
Sensor Use during 15-28 Days						
0-10	8	13%	13	23%	7	43%
11-13	18	50%	23	9%	16	50%
14	47	51%	36	44%	63	90%
% of day 71-180 mg/dL during First Month						
20-<55%	27	30%	30	13%	7	14%
55-<70%	33	58%	28	36%	33	82%
70-95%	13	54%	14	50%	46	87%
% of day ≤70 mg/dL during First Month						
5-31%	14	21%	30	27%	33	82%
2-<5%	24	54%	25	32%	28	79%
0-<2%	35	51%	17	29%	25	76%
% of day >180 mg/dL during First Month						
40-79%	29	38%	32	13%	7	43%
25-<40%	33	52%	23	39%	30	80%
1-<25%	11	55%	17	47%	49	84%

* One subject was missing sensor data for the first month due to a defective device that could not be downloaded

Appendix Figure 1. Association between Change in HbA1c from Baseline to Six Months and the Average Amount of CGM Use Per Week During the Six Months of the Study



Disclosure

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Below is a listing of relationships of the investigators with companies that make products relevant to the manuscript between July 1, 2006 and June 30, 2008. Research funds where listed below were provided to the legal entity that employs the individual and not directly to the individual.

Jennifer M. Block, RN, CDE reports having received honoraria from Abbott Diabetes Care, Inc. and Medtronic MiniMed, Inc., and serving on a medical advisory board for Tandem Ince. And Arkal Medical; Dr. Bode reports having received consulting fees, honoraria, travel reimbursement, and research funds from Abbott Diabetes Care, Inc., and Medtronic MiniMed, Inc., and grant support from DexCom, Inc.; Dr. Buckingham reports having received a speaker honorarium and research funding from Abbott Diabetes Care, Inc., a fee for serving on a medical advisory board for Lifescan, Inc., a speaker honorarium, consulting fees, and research funding from Medtronic MiniMed, Inc., and a consulting fee from Novo Nordisk, Inc.; Dr. Chase reports having received a speaker honorarium from Abbott Diabetes Care, Inc. and Sanofi-Aventis, and grant support from Symlin; Dr. Fiallo-Scharerer reports having received supplies for research from Abbott Diabetes Care, Inc. and Medtronic MiniMed, Inc.; Dr. Fox reports having received supplies for research from Abbott Diabetes Care, Inc. and Smiths Medical; Dr. Hirsch reports having received consulting fees and travel reimbursement from Abbott Diabetes Care, Inc., and grant support from Medtronic MiniMed, Inc.; Kerry Milaszewski, RN, CDE reports having received consulting fees from Medtronic MiniMed, Inc.; Dr. Laffel reports having received consulting fees from Lifescan, Inc., consulting fees and a speaker honorarium from Abbott Diabetes Care, Inc., consulting fees and research funding from Medtronic MiniMed, Inc., and consulting and speaker fees from Roche; Dr. Mauras reports having received grant support from Medtronic MiniMed, Inc.; Dr. Tamborlane reports having received consulting fees from Abbott Diabetes Care, Inc. and Lifescan, Inc. and consulting fees, a speaker honorarium, and research funding from Medtronic MiniMed, Inc.; Dr. Weinzimer reports having received research support, a speaker honorarium and travel reimbursement from Medtronic MiniMed, Inc., and a speaker honorarium from Animas Corp / Lifescan, Inc.; Dr. Wolpert reports having received consulting fees from Abbott Diabetes Care, Inc. and research funding from Medtronic MiniMed, Inc.; Dr. Wilson reports having received equipment and software from Abbott Diabetes Care, Inc. and Medtronic MiniMed, Inc. and research support from Medtronic MiniMed, Inc. and The Elizabeth Glaser Pediatric AIDS Foundation.

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