SUPPLEMENTARY DATA

SUPPLEMENTARY TABLE 1.- Distribution of treatment modalities according to healthcare-based country groups

	TOTAL	INJECTIONS- NO SENSOR	INJECTIONS+ SENSOR	PUMP- NO SENSOR	PUMP + SENSOR
	N=25654	N=9606	N=3843	N=4418	N=7787
	24877	9329	3785	4174	7589
Northern Europe/Slovenia	6842	1463	940	2126	2313
		(21,38)	(13,74)	(31,07)	(33,81)
Southern/Eastern Europe	5221	1988	1269	707	1257
		(38,08)	(24,31)	(13,54)	(24,07)
Australia/Canada/New Zealand	3363	857	754	409	1343
		(25,48)	(22,42)	(12,16)	(39,94)
Asia/Middle East/Africa	3890	3442	200	182	66
		(88,48)	(5,14)	(4,68)	(1,70)
United States	4873	950	607	736	2580
		(19,50)	(12,46)	(15,10)	(52,94)
South America	688	629	15	14	30
		(91,42)	(2,18)	(2,03)	(4,37)

Results are expressed as number of subjects and percentage of total subjects within the respective country-group who used each modality. “Northern Europe/Slovenia” includes centers from: Austria, Belgium, Denmark, England, Germany, Ireland, Luxembourg, Netherlands, Norway, Slovenia, Sweden. “Southern/Eastern Europe” includes centers from: Bulgaria, Croatia, Czech Republic, France, Greece, Hungary, Italy, Lithuania, Poland, Portugal, Romania, Serbia and Spain.

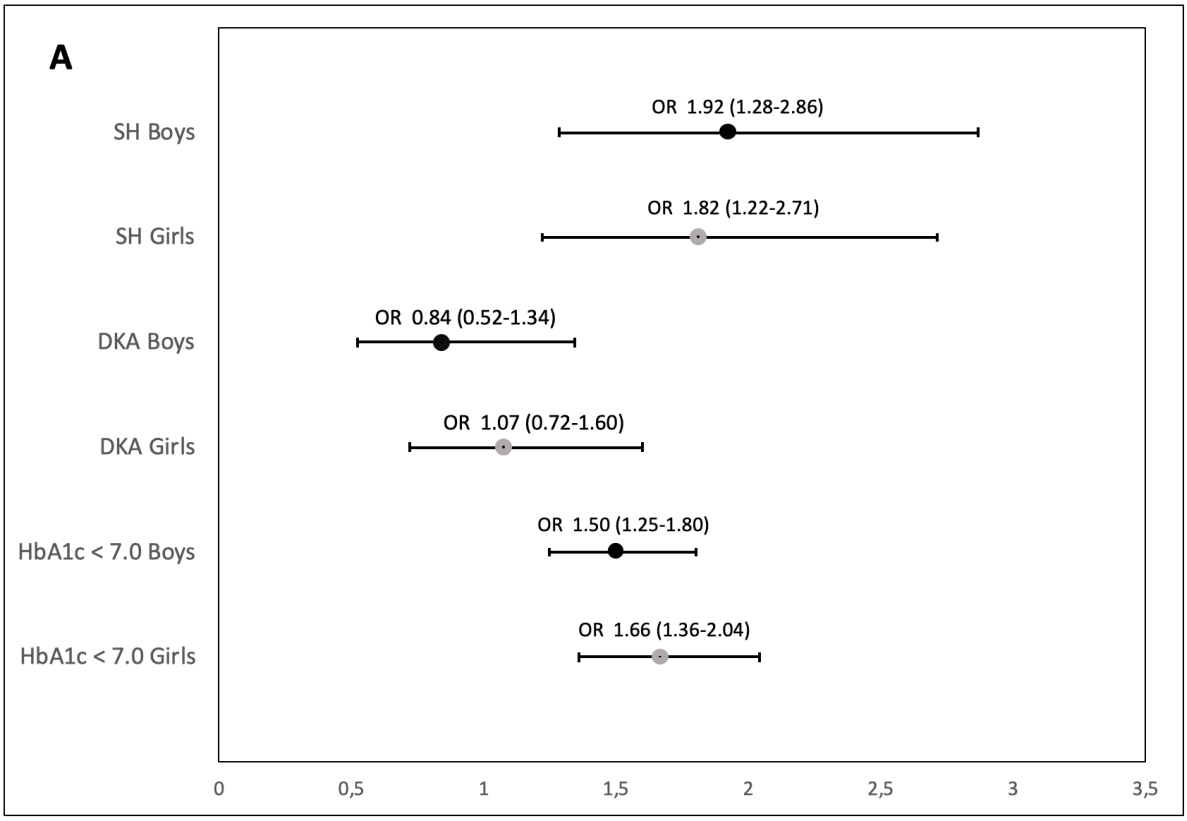
SUPPLEMENTARY TABLE 2.- Glycemic outcomes according to treatment modality and age group

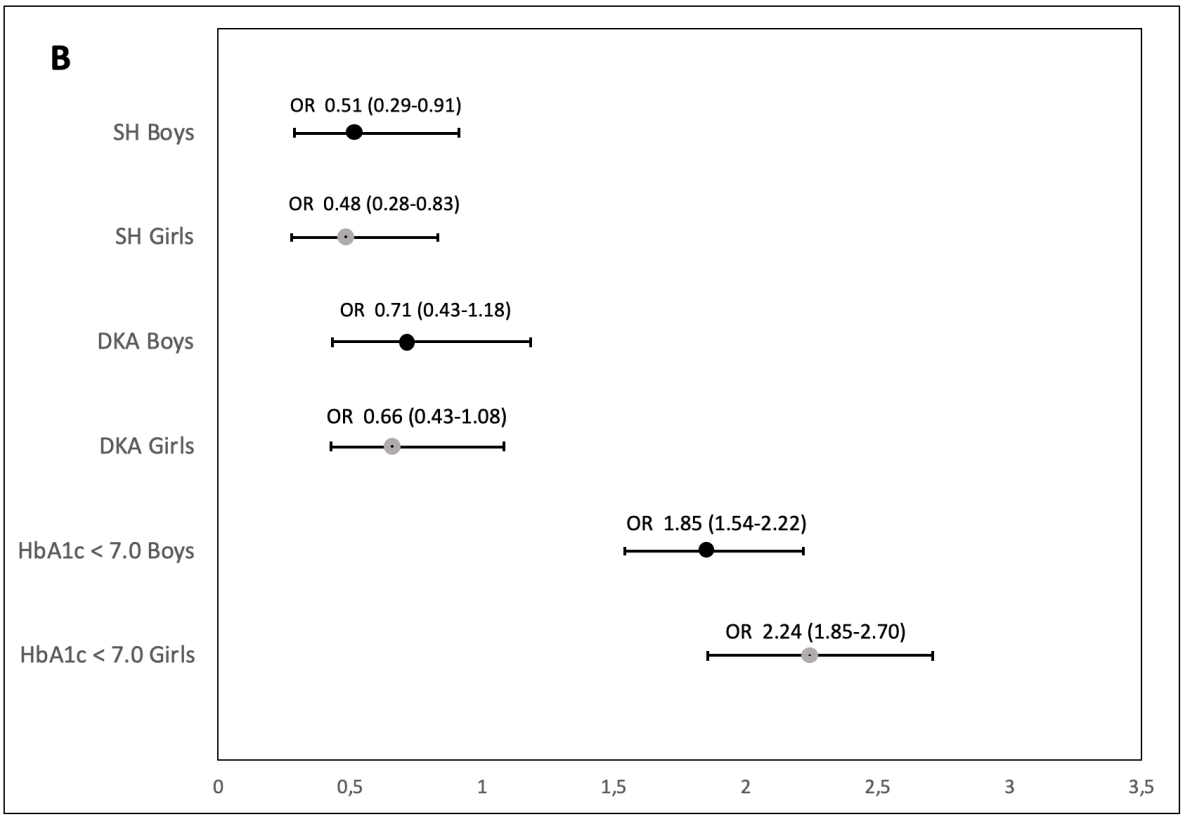
	Injections-no sensor	Injections +sensor	Pump-no sensor	Pump-Sensor	p-value
HbA_{1c} (mmol/mol)					
HbA_{1c} (%)					
[Q1, Q3]					
(n)					
< 12 years	68.51±17.13	60.78±14.94	57.36±12.45	58.54±11.66	<0.001
	[57.08-76.95]	[51.56-68.02]	[48.91-63.70]	[50.46-65.35]	
	8.42±1.56	7.71±1.36	7.40±1.14	7.51±1.07	
	[7.37-9.19]	[6.87-8.37]	[6.62-7.97]	[6.77-8.13]	
	(3074)	(1332)	(1289)	(3116)	
12-16 years	74.60±22.62	66.43±18.65	63.62±16.53	63.80±15.08	<0.001
	[58.65-85.78]	[54.87-73.84]	[52.67-71.28]	[53.77-70.83]	
	8.97±2.07	8.23±1.71	7.97±1.51	7.99±1.38	
	[7.51-9.99]	[7.17-8.91]	[6.97-8.67]	[7.07-8.06]	
	(3257)	(1398)	(1481)	(2765)	
>16 years	74.89±23.74	68.38±20.67	68.28±20.26	67.26±17.75	<0.001
	[58.18-86.88]	[54.24-76.95]	[54.72]	[55.43-75.39]	
	9.0±2.17	8.41±1.89	8.40±1.85	8.30±1.62	
	[7.47-10.10]	[7.11-9.19]	[7.16-9.14]	[7.22-9.04]	
	(2997)	(1086)	(1601)	(1857)	
DKA [%]					
(n)					
< 12 years	0.03±0.18	0.02±0.13	0.02±0.14	0.02±0.14	<0.001
	(3168)	(1345)	(1307)	(3144)	
12-16 years	0.04±0.19	0.04±0.19	0.02±0.14	0.03±0.18	0.02
	(3361)	(1411)	(1495)	(2778)	
>16 years	0.03±0.18	0.04±0.19	0.02±0.15	0.03±0.18	0.02
	(3077)	(1087)	(1616)	(1865)	
Severe Hypoglycemia [%]					
(n)					
< 12 years	0.02±0.15	0.03±0.18	0.01±0.09	0.03±0.16	<0.001
	(3168)	(1345)	(1307)	(3144)	

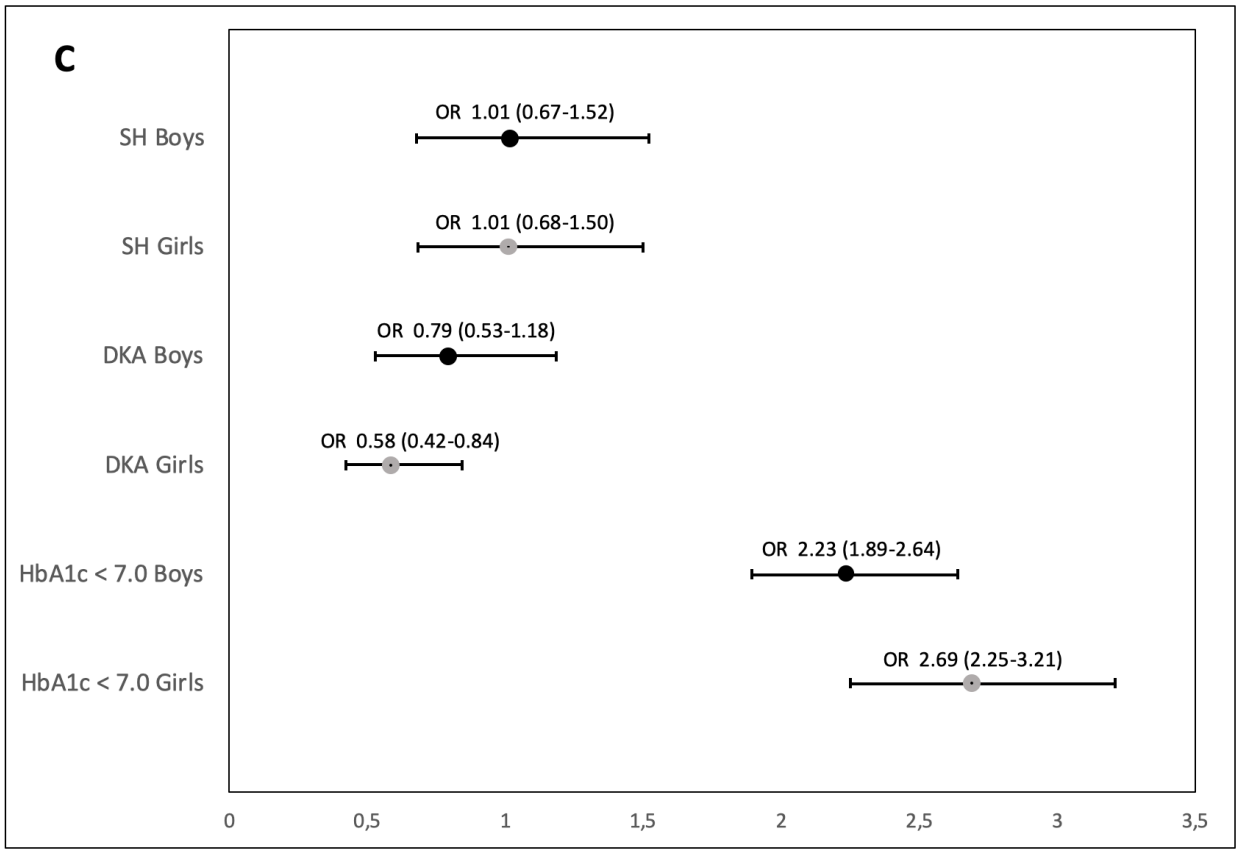
12-16 years	0.02±0.14	0.05±0.22	0.02±0.13	0.02±0.15	<0.01
	(3361)	(1411)	(1495)	(2778)	
>16 years	0.03±0.16	0.06±0.23	0.01±0.12	0.03±0.18	<0.01
	(3077)	(1087)	(1616)	(1865)	

Unadjusted HbA1c according to age groups (<12 years, 12-16 years, >16 years) and treatment modality groups. Data are given as median ± standard deviation with quartiles [Q1; Q3]. Hospitalizations due to diabetic ketoacidosis (DKA) and episodes of severe hypoglycemia expressed as percentage of subjects having one episode of DKA or severe hypoglycemia during one year. Number of subjects (n) express the number of participants in each age-group and treatment modality. P-values for comparisons among different treatment modalities within each age group.

SUPPLEMENTARY FIGURE 1. Outcome gender comparisons with reference group




B
SH Boys
OR 0.51 (0.29-0.91)
SH Girls
OR 0.48 (0.28-0.83)
DKA Boys
OR 0.71 (0.43-1.18)
DKA Girls
OR 0.66 (0.43-1.08)
HbA1c < 7.0 Boys
OR 1.85 (1.54-2.22)
HbA1c < 7.0 Girls
OR 2.24 (1.85-2.70)
0
0,5
1
1,5
2
2,5
3
3,5



SUPPLEMENTAL FIG 1— Gender comparisons between injections+sensor group and the reference group injections-no sensor (A), pump-no sensor group and reference (B) and pump+sensor and the reference (C) for severe hypoglycemia according to ISPAD definitinon (SH), diabetic ketoacidosis according to ISPAD definition (DKA) and percentage of subjects achieving ISPAD 2018 target for HbA_{1c} <7.0% [<53 mmol/mol]. Odds ratios (OR) are represented by black circles in case of boys and light gray circles in case of girls (confidence interval 95%).