

SUPPLEMENTARY FILES

Supplementary Table 1. *Baseline characteristics*

Characteristics	Summary statistics	Total (n=139)	Group 1 (n=71)	Group 2 (n=68)	p-value
Age (years)	N	138 (99%)	70 (99%)	68 (100%)	0.993
	Missing	1 (1%)	1 (1%)	0 (0%)	
	Median (IQR)	49 (39- 61)	48 (39- 60)	49 (38- 62)	
	Min-Max	13 - 83	20 - 79	13 - 83	
Age at diabetes onset (years)	N	138 (99%)	70 (99%)	68 (100%)	0.905
	Missing	1 (1%)	1 (1%)	0 (0%)	
	Median (IQR)	23 (12- 32)	23 (13- 32)	24 (12- 33)	
	Min-Max	1 - 61	3 - 50	1 - 61	
Age at CSII first usage (years)	N	61 (44%)	32 (45%)	29 (43%)	0.988
	Missing	78 (56%)	39 (55%)	39 (57%)	
	Median (IQR)	31 (23- 39)	31 (22- 38)	29 (23- 39)	
	Min-Max	0 - 58	9 - 58	0 - 57	
Time between CSII start and last follow-up (years)	N	139 (100%)	71 (100%)	68 (100%)	0.019
	Missing	0 (0%)	0 (0%)	0 (0%)	
	Median (IQR)	12 (8- 17)	14 (9- 18)	10 (6- 16)	
	Min-Max	0 - 35	2 - 35	0 - 28	
Duration of PLGS use (years)	N	71 (51%)	71 (100%)	0 (0%)	
	Missing	68 (49%)	0 (0%)	68 (100%)	
	Mean \pm SD	5 \pm 1	5 \pm 1	. \pm .	
	Median (IQR)	5 (4- 5)	5 (4- 5)	. (.-.)	
	Min-Max	2 - 9	2 - 9	. -. .	

Supplementary Table 2. Annual glucose control measures Group 1

Parameter	Summary statistics	FU #1	FU #2	FU #3	FU #4	FU #5	p-value
HbA1c (%)	N	69 (98.6%)	64 (97.0%)	52 (100.0%)	55 (100.0%)	34 (89.5%)	0.020
	Missing	1 (1.4%)	2 (3.0%)	0 (0.0%)	0 (0.0%)	4 (10.5%)	
	Median (IQR)	7.3 (6.8-8.0)	7.2 (6.8-7.7)	7.3 (6.8-7.8)	7.0 (6.6-7.5)	6.8 (6.3-7.8)	
	Min-Max	6.0 -13.0	5.3 -9.5	5.2 -9.3	5.2 -9.0	5.0 -9.8	

Supplementary Table 3. Annual glucose control measures Group 2

Parameter	Summary statistics	FU #1	FU #2	FU #3	FU #4	FU #5	p-value
HbA1c (%)	N	67 (100.0%)	58 (100.0%)	39 (92.9%)	37 (94.9%)	18 (90.0%)	0.853
	Missing	0 (0.0%)	0 (0.0%)	3 (7.1%)	2 (5.1%)	2 (10.0%)	
	Median (IQR)	7.4 (6.7-8.0)	7.6 (6.9-8.1)	7.2 (6.5-8.0)	7.4 (6.9-8.0)	7.4 (6.7-8.0)	
	Min-Max	5.2 -11.3	4.6 -11.3	5.0 -10.0	5.5 -10.7	5.4 -8.8	

Supplementary Table 4. *Clinical outcomes and device utilization Group 1*

Parameter	Summary statistics	FU #1	FU #2	FU #3	FU #4	FU #5	p-value
CHO counting	%, n/Pts	69.1% (47/68)	65.6% (40/61)	75.0% (33/44)	80.0% (44/55)	90.9% (30/33)	0.422
Special bolus	%, n/Pts	86.8% (59/68)	83.6% (51/61)	95.5% (42/44)	87.3% (48/55)	97.0% (32/33)	0.250
Use of "temporary basal rate" function	%, n/Pts	58.8% (40/68)	72.1% (44/61)	79.5% (35/44)	58.2% (32/55)	93.9% (31/33)	0.589
LGS	%, n/Pts	45.7% (32/70)	0.0% (0/66)	0.0% (0/52)	0.0% (0/55)	0.0% (0/0)	0.589
Microalbuminuria (mg/dl)	N	15 (21.4%)	39 (59.1%)	31 (59.6%)	51 (92.7%)	25 (65.8%)	0.306
	Missing	55 (78.6%)	27 (40.9%)	21 (40.4%)	4 (7.3%)	13 (34.2%)	
	Mean ± SD	10.1 ± 12.7	6.7 ± 17.8	5.4 ± 21.6	2.6 ± 5.9	8.0 ± 23.8	
	Median (IQR)	5.0 (0.5- 13.8)	1.4 (0.3- 6.0)	0.5 (0.2- 1.5)	0.0 (0.0- 2.0)	0.0 (0.0- 2.0)	
	Min-Max	0.0 - 40.0	0.0 - 100.0	0.0 - 121.0	0.0 - 30.0	0.0 - 111.0	
Dyslipidemia	%, n/Pts	29.3% (17/58)	29.5% (18/61)	33.3% (16/48)	30.6% (17/54)	32.5% (11/33)	0.122
Arterial hypertension	%, n/Pts	31.0% (18/58)	32.8% (20/61)	31.3% (15/48)	40.7% (22/54)	45.5% (15/33)	0.179
Peripheral artery disease	%, n/Pts	20.7% (12/58)	26.2% (16/61)	25.0% (12/48)	24.1% (13/54)	21.2% (7/33)	0.690
BMI (kg/m2)	N	38 (54.3%)	52 (78.8%)	49 (94.2%)	45 (81.8%)	32 (84.2%)	0.887
	Missing	32 (45.7%)	14 (21.2%)	3 (5.8%)	10 (18.2%)	6 (15.8%)	
	Mean ± SD	25.2 ± 3.5	25.2 ± 3.7	25.6 ± 3.5	25.2 ± 3.7	25.2 ± 2.8	
	Median (IQR)	25.7 (23.0- 27.5)	25.1 (22.5- 27.3)	25.2 (23.7- 27.3)	25.0 (23.2- 27.0)	26.0 (23.6- 27.0)	
	Min-Max	17.7 - 32.8	17.8 - 34.3	18.0 - 34.4	18.0 - 34.8	20.0 - 32.7	

Supplementary Table 5. Clinical outcomes and device utilization Group 2

Parameter	Summary statistics	FU #1	FU #2	FU #3	FU #4	FU #5	p-value
CHO counting	%, n/Pts	52.2% (35/67)	46.3% (25/54)	57.6% (19/33)	63.2% (24/38)	58.8% (10/17)	0.331
Special bolus	%, n/Pts	85.1% (57/67)	72.2% (39/54)	90.9% (30/33)	89.5% (34/38)	94.1% (16/17)	0.024
Use of "temporary basal rate" function	%, n/Pts	47.8% (32/67)	57.4% (31/54)	84.8% (28/33)	65.8% (25/38)	70.6% (12/17)	0.422
LGS	%, n/Pts	32.8% (22/67)	3.4% (2/58)	0.0% (0/42)	0.0% (0/39)	0.0% (0/0)	
Microalbuminuria (mg/dl)	N	17 (25.4%)	43 (74.1%)	30 (71.4%)	34 (87.2%)	15 (75.0%)	0.296
	Missing	50 (74.6%)	15 (25.9%)	12 (28.6%)	5 (12.8%)	5 (25.0%)	
	Mean ± SD	5.4 ± 12.9	6.1 ± 15.7	2.7 ± 4.8	2.7 ± 6.1	3.5 ± 6.3	
	Median (IQR)	0.0 (0.0- 1.0)	0.5 (0.0- 3.0)	0.5 (0.0- 3.0)	0.0 (0.0- 0.6)	1.3 (0.0- 2.0)	
	Min-Max	0.0 - 46.0	0.0 - 89.4	0.0 - 20.0	0.0 - 30.0	0.0 - 20.9	
Dyslipidemia	%, n/Pts	21.2% (11/52)	19.6% (10/51)	31.6% (12/38)	34.2% (13/38)	44.4% (8/18)	0.422
Arterial hypertension	%, n/Pts	25.0% (13/52)	27.5% (14/51)	36.8% (14/38)	42.1% (16/38)	38.9% (7/18)	0.422
Peripheral artery disease	%, n/Pts	13.5% (7/52)	13.7% (7/51)	18.4% (7/38)	36.8% (14/38)	27.8% (5/18)	0.422
BMI (kg/m2)	N	40 (59.7%)	41 (70.7%)	40 (95.2%)	32 (82.1%)	19 (95.0%)	0.001
	Missing	27 (40.3%)	17 (29.3%)	2 (4.8%)	7 (17.9%)	1 (5.0%)	
	Mean ± SD	25.3 ± 2.8	25.5 ± 2.9	25.9 ± 3.1	25.5 ± 3.5	25.7 ± 3.4	
	Median (IQR)	25.0 (23.1- 27.3)	25.3 (23.4- 26.9)	26.2 (23.7- 27.5)	25.9 (23.1- 26.9)	26.0 (23.6- 27.0)	
	Min-Max	20.2 - 32.0	20.7 - 32.5	18.0 - 32.5	18.5 - 32.0	17.7 - 32.0	