ONLINE-ONLY SUPPLEMENTAL MATERIAL

Supplemental Table S1. Comparison of baseline characteristics between noneligible patients or patients declining participation and included patients

	Screened n=848	Noneligible n=251	Declined participation n=240*/102†	Included n=357
Age				
Years	50±17	52±20 (p<0.01)	51±16 (p<0.05)	48±14
<50 years, n (%)	400 (47)	110 (44) (NS‡)	107 (45) (NS‡)	183 (51)
Female sex, n (%)	339 (40)	111 (44) (NS‡)	97 (40) (NS‡)	131 (37)
Disease duration				
Years			28.3±16.9 (p<0.01§)	22.5±14.4
≤ 5 years, n (%)			7 (7) (NS‡)	43 (12)
Insulin pump use‖, n (%)			17 (17) (NS‡)	62 (17)
HbA1c				
%			7.5±1.0 (NS)	7.6±0.9
mmol/mol			58.5±10.5	59.7±10.2
LDL cholesterol, mmol/l			2.4±0.8 (NS)	2.5±0.7
eGFR, ml/min			110±38 (NS)	119±45
Blood pressure, mmHg				
Systolic			131±13 (NS)	132±14
Diastolic			73±10 (p<0.01)	76±9
Body weight, kg			81±17 (NS)	83±16
BMI, kg/m^2			26.0±4.6 (p<0.05)	27.2±4.6
uACR, n (%)				
Normoalbuminuria			49 (85)	286 (84)
Microalbuminuria			7 (12)	42 (12)
Macroalbuminuria			2 (3) (NS¶)	14 (4)
Retinopathy, n (%)				
Normal			35 (49)	163 (46)
Nonproliferative			31 (43)	138 (39)
Proliferative or laser treated			6 (8) (NS‡)	54 (15)

Data are represented as mean±SD and were analyzed with the t test unless otherwise indicated.

*All patients who declined participation (only sex and age collected); †patients who declined participation but granted access to medical records.

‡Chi-squared test; §Wilcoxon rank-sum test (Mann–Whitney); ‖Pump or injection; ¶Fisher's

exact test.

eGFR, estimated glomerular filtration rate; HbA1c, glycated hemoglobin; NS, nonsignificant; uACR, urine albumin-to-creatinine ratio.

Supplemental Table S2. Comparison of baseline characteristics between patients who completed the study (per protocol) and dropouts

	All included		Intervention		Control	
	Per protocol n=322	Dropouts n=35	Per protocol n=153	Dropouts n=25	Per protocol n=169	Dropouts n=10
Age						
Years	49±13	40±16 (p<0.001)	48±14	41±17 (p<0.05)	49±13	38±15 (p<0.05)
<50 years, n (%)	159 (49)	24 (69) (p<0.05*)	82 (54)	17 (68) (NS*)	77 (46)	7 (70) (NS*)
Female sex, n (%)	113 (35)	18 (5) (NS*)	58 (38)	11 (44) (NS*)	55 (33)	7 (70) (p<0.05*)
Disease duration						
Years	23.0±14.4	17.5±10.8 (p<0.05†)	22.8±13.9	17.1±10.9 (p<0.05†)	23.2±14.9	18.5±11.1 (NS†)
≤ 5 years, n (%)	40 (12)	3 (9) (NS*)	17 (11)	2 (8) (NS*)	23 (14)	1 (10) (NS*)
HbA1c						
%	7.6±0.9	7.4±0.9 (NS)	7.7±1.0	7.2±0.8 (p<0.05)	7.6±0.9	7.9±0.9 (NS)
mmol/mol	59.9±10.2	57.6±9.6	60.3±10.6	55.5±9.1	59.5±9.8	62.4±9.6
LDL cholesterol, mmol/l	2.5±0.7	2.6±0.8 (NS)	2.5±0.7	2.5±0.7 (NS)	2.5±0.8	2.7±1.3 (NS)
Insulin pump use, n (%)	52 (16)	10 (29) (NS*)	25 (16)	6 (24) (NS*)	27 (16)	4 (40) (NS*)
Blood pressure, mmHg						
Systolic	132±14	129±18 (NS)	133±12	130±19 (NS)	132±15	126±14 (NS)
Diastolic	76±9	74±10 (NS)	77±8	73±11 (NS)	76±9	76±5 (NS)
Body weight, kg	84±16	76±13 (p<0.005)	85±16	77±13 (p<0.05)	84±16	73±13 (p<0.05)
BMI, kg/m^2	27.4±4.7	25.6±3.9 (p<0.05)	27.7±4.7	25.4±2.5 (p<0.05)	27.1±4.6	25.0±6.3 (NS)

Data represent mean±SD and were analyzed with the t test unless otherwise indicated.

*Chi-squared test; †Wilcoxon rank-sum test (Mann–Whitney).

Supplemental Table S3. Patient preferences for patient-initiated setup vs. routine physician-initiated visits and subgroup analysis by sex and age*

	Intervention	Within group difference†	Control	Within group difference†	Between-group difference†
Patient-initiated vs. routine physician-initiated visits, n (%)	82 (58) vs. 60 (42) n=142		27 (20) vs. 109 (80) n=136		p<0.001
Female	35 (67) vs. 17 (33) n=52	NS	10 (24) vs. 32 (76) n=42	NS	p<0.001
Male	47 (52) vs. 43 (48) n=90		17 (18) vs. 77 (82) n=94		p<0.001
Age <50	50 (64) vs. 28 (36) n=78	NS	32 (59) vs. 32 (50) n=64	p<0.05	p<0.001
Age ≥50	19 (30) vs. 45 (70) n=64		8 (11) vs. 64 (89) n=72		p<0.001

*Patients who completed the trial were asked at the end of trial about their preference for scheduling visits to the outpatient clinic.

†Data were analyzed with the chi-squared test.

Supplemental Table S4. Patient-reported experience outcomes and subgroup analysis by sex and age*†

		Sex	Between-group difference	Age (years)	Between-group difference
	S1	Female	NS	<50	NS
		Male	NS	≥50	NS
Benefit					
	S2	Female	NS	<50	p<0.01
		Male	NS	≥50	NS
	S3	Female	NS	<50	NS
		Male	p<0.05	≥50	p<0.05
	S4	Female	NS	<50	p<0.05
		Male	NS	≥50	NS
Accessibility					
	S5	Female	NS	<50	p<0.01
		Male	p<0.01	≥50	p<0.05
	S6	Female	p<0.01	<50	p<0.001
		Male	p<0.001	≥50	p<0.05
	S7	Female	NS	<50	p<0.01
		Male	p<0.05	≥50	NS
Overall 7 item satisfaction score‡		Female	p<0.05	<50	p<0.001
		Male	p<0.001	≥50	p<0.05

*Subgroup analysis for patient-reported experience measures from Table 2. Likert scores were analyzed by multilevel mixed-effects ordered logistic regression.

†Number of patients (baseline/end of trial): intervention group, females=69/58, males=108/94, <50 years=99/82, ≥50 years=79/71; control group, females=62/54, males=117/111, <50 years=84/77, ≥50 years=95/92.

‡Sum scores was analyzed by mixed-model multilevel mixed-effects linear regression.

Supplemental Table S5. Patient-reported experience measures for patient involvement, patient empowerment and diabetes distress at baseline and at the end of the trial*†

Item‡§	Intervention			Control			P value (between groups)
	Baseline	End of trial	P value (within group)	Baseline	End of trial	P value (within group)	
Patient involvement							
S8	4.33±0.66	4.44±0.62	NS	4.39±0.66	4.29±0.67	p<0.05	p<0.05
Empowerment							
S9	4.02±0.70	3.99±0.81	NS	4.08 ±0.68	3.98±0.69	NS	NS
S10	4.11±0.72	4.17±0.66	NS	4.15±0.68	4.07±0.63	NS	NS
S11	4.21±0.58	4.25±0.58	NS	4.25±0.58	4.15±0.67	NS	NS
S12	4.07±0.66	4.11±0.68	NS	4.21±0.64	4.05±0.64	p<0.01	NS
Diabetes distress							
S13	3.52±1.11	3.39±1.16	NS	3.50±1.07	3.43±1.17	NS	NS
S14	3.95±0.91	3.94±0.94	NS	3.91±0.96	3.88±1.00	NS	NS

Data are presented as mean±SD.

*Number of patients replying to the questionnaires at baseline/end of trial: intervention group, 177/152; control group, 179/165.

†Patient-reported experience were measured on a 5-point Likert scale (1=strongly disagree to 5=strongly agree); scores were analyzed by multilevel mixed-effects ordered logistic regression.

‡S8, I feel that I am involved in decisions about my treatment at the visits; S9, I feel I am able to manage my diabetes treatment; S10, I am satisfied with my knowledge of diabetes; S11, I am confident that I can understand and manage my measurements and symptoms; S12, I know

how to prevent diabetes complications; S13, I worry about having too low or too high blood sugar levels; S14, I worry about getting complications later in life due to diabetes.

[§]Intraclass correlation coefficient (ICC) (two-way random-effects model) scores for the items of S8=0.72, S9=0.47, S10=0.62, S11=0.68, S12=0.53, S13=0.54, and S14=0.62.

NS, nonsignificant.

Supplemental Table S6. HbA1c level at baseline and at the end of the trial and subgroup analysis by sex*†

	Intervention			Control			
	Baseline	End of trial	Within-group difference	Baseline	End of trial	Within-group difference	Between-group difference
Female							
Hba1c, %	7.6±1.0	7.8±1.0	NS	7.5±0.7	7.5±0.8	NS	NS
Hba1c, mmol/mol	59.8±10.9	62.0±11.2	NS	58.2±8.1	58.0±8.8	NS	NS
Male							
Hba1c, %	7.6±0.9	7.6±1.1	NS	7.7±1.0	7.6±1.0	NS	NS
Hba1c, mmol/mol	59.6±10.3	59.5±11.6	NS	60.4±10.5	60.1±10.8	NS	NS
<50 years							
Hba1c, %	7.6±1.0	7.7±1.0	NS	7.7 ±0.9	7.7 ±0.9	NS	NS
Hba1c, mmol/mol	59.9±10.5	60.3±10.9	NS	60.3±9.8	60.9±9.8	NS	NS
≥50 years							
Hba1c, %	7.6±1.0	7.7±1.12	NS	7.7±0.9	7.6±1.0	NS	NS
Hba1c, mmol/mol	59.3±10.6	60.7±12.2	NS	59.1±9.8	58.1±10.5	NS	NS

*HbA1c levels are reported as mean±SD; changes were analyzed by mixed-model multilevel regression.

†Number of patients (ie, HbA1c samples) (baseline/end of trial): intervention group, females=69/58, males=108/95, <50 years=98/82, ≥50 years=79/71; control group, females=61/55, males=116/114, <50 years=82/77, ≥50 years=95/92.

HbA1c, glycated hemoglobin; NS, nonsignificant.

Supplemental Table S7. All HbA1c samples in the study period (from baseline to the final visit)

	Intervention n=174	Control n=175	Between-group difference
HbA1c (all samples)			
%	7.6±0.9	7.6±0.8	NS*
mmol/mol	60.1±10.1	59.2±8.7	NS*
Number of all HbA1c samples, mean±SD[†]	5.8±2.1	6.5±1.8	p<0.05[‡]
Number of samples above HbA1c threshold			
>8.6 % (70 mmol/mol), n	148	137	NS[§]
>9.5% (80 mmol/mol), n	51	35	NS[§]
>10.4% (90 mmol/mol), n	7	11	NS[§]

*Multiple linear regression weighted for number of measurements.

[†]Mean±SD weighted for time in the trial.

[‡]Poisson regression controlled for exposure time in the trial.

[§]Poisson regression with weighted analyses based on probability weights of the number of measurements and controlled for exposure time in the trial.

HbA1c, glycated hemoglobin; NS, nonsignificant.

Supplemental Table S8. Number of contacts with the outpatient clinic during the study period (from enrollment to the final visit) and subgroup analysis by sex*†

Use of resources per patient	Intervention n=178		Control n=179		Between-group difference
	Mean number of contacts	Total number of contacts	Mean number of contacts	Total number of contacts	
All visits to outpatient clinic (physician, nurse, and dietician)	4.4±2.8	754	6.3±2.7	1120	p<0.001
Female	5.1±2.6		6.4±2.9		p<0.05
Male	3.9±2.8		6.3±2.7		p<0.001
<50 years	4.4±2.8		6.5±3.1		p<0.001
≥50 years	4.4±2.7		6.2±2.4		p<0.001
Outpatient visits (endocrinology specialist physician)	1.7±1.0	281	2.6±0.6	452	p<0.001
Female	1.8±0.9		2.5±0.6		p<0.01
Male	1.6±1.0		2.6±0.6		p<0.001
<50 years	1.6±1.0		2.5±0.6		p<0.001
≥50 years	1.8±1.0		2.6±0.6		p<0.001
Outpatient visits (specialist diabetes nurse)	2.3±2.2	398	3.2±2.0	571	p<0.001
Female	2.8±2.2		3.0±1.9		NS
Male	1.9±2.1		3.3±2.1		p<0.001
<50 years	2.3±2.3		3.4±2.1		p<0.001
≥50 years	2.3±2.0		3.1±1.9		p<0.05
Outpatient visits (dietician)	0.4±1.0	75	0.6±1.3	97	NS
Female	0.5±0.9		0.8±1.5		NS
Male	0.4±1.1		0.4±1.2		NS
<50 years	0.5±1.1		0.6±1.5		NS
≥50 years	0.4±1.0		0.5±1.1		NS
Phone calls (physician, nurse, and dietician)‡	3.1±3.4	532	2.5±3.2	449	p<0.01
Female	4.1±4.0		2.8±3.6		p<0.001

Male	2.5±2.8		2.3±3.1		NS
<50 years	3.2±3.7		2.9±3.3		NS
≥50 years	2.9±3.1		2.2±3.2		p<0.05
Lost appointments[§]	0.3±0.7	52	0.6±1.1	98	p<0.05
Female	0.2±0.5		0.3±0.7		NS
Male	0.3±0.8		0.7±1.3		p<0.001
<50 years	0.3±0.7		0.9±1.4		p<0.001
≥50 years	0.3±0.6		0.3±0.7		NS

*Mean±SD for the number of visits were weighted for time in the trial; data were analyzed by Poisson analysis controlled for exposure time in the trial.

[†]Patient numbers (baseline/end of trial): intervention group, females=69/58, males=109/95, <50 years=98/82, ≥50 years=79/71; control group, females=62/55, males=117/114, <50 years=82/77, ≥50 years=95/92.

[‡]91 % of the phone calls in both the intervention group and the control group were with a nurse.

[§]Number of lost appointments includes no-shows and late cancellations (within 1 day).

NS, nonsignificant.

Supplemental Table S9. Frequency distribution of visits to the outpatient clinic during the study period for all patients who completed the trial and subgroup analysis by sex*

Total number of outpatient visits	Intervention			Control		
	N=153	Female N=58	Male N=95	N=169	Female N=55	Male N=114
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
0	0	0	0	0	0	0
1	19 (12.4)	5 (8.6)	14 (14.7)	0	0	0
2	23 (15.0)	4 (6.9)	19 (20.0)	1 (0.6)	0	1 (0.9)
3	23 (15.0)	7 (12.1)	16 (16.8)	7 (4.1)	1 (1.8)	6 (5.3)
4	23 (15.0)	9 (15.5)	14 (14.7)	34 (20.1)	16 (29.1)	18 (15.8)
5	14 (9.2)	8 (13.8)	6 (6.3)	41 (24.3)	7 (12.7)	34 (29.8)
6	15 (9.8)	6 (10.3)	9 (9.5)	22 (13.0)	7 (12.7)	15 (13.2)
7	14 (9.2)	10 (17.2)	4 (4.2)	17 (10.1)	7 (12.7)	10 (8.8)
8	12 (7.8)	7 (12.1)	5 (5.3)	15 (8.9)	6 (10.9)	9 (7.9)
9	2 (1.3)	0	2 (2.1)	14 (8.3)	4 (7.3)	10 (8.8)
10	3 (2.0)	0	3 (3.2)	8 (4.7)	5 (9.1)	3 (2.6)
11	3 (2.0)	2 (3.5)	1 (1.1)	2 (1.2)	0	2 (1.8)
12	1 (0.7)	0	1 (1.1)	3 (1.8)	0	3 (2.6)
13	1 (0.7)	0	1 (1.1)	1 (0.6)	0	1 (0.9)
14	0	0	0	1 (0.6)	1 (1.8)	0
15	0	0	0	0	0	0
16	0	0	0	1 (0.6)	0	1 (0.9)
17	0	0	0	1 (0.6)	0	1 (0.9)
18	0	0	0	1 (0.6)	1 (1.8)	0

*Number of participants who completed the trial (N) and had any number of visits during the trial period, including visits with a physician, nurse, or dietician.