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Supplementary Table 1. Baseline characteristics of the included studies

Study	Trial registration	Study design	Setting	Population	Automated insulin delivery systems	Comparator	Single or dual hormone	24-hr or overnight	Follow-up	No. of patients	Type of closed-loop systems	Type of algorithm	HbA1c level at baseline, %	TIR	TBR
Abraham et al. (2021) [1]	ACTRN1261 6000753459	Parallel	Home	Children and adolescents	MiniMed 670G	CSII or MDI with or without CGM	Single	24 hours	26 weeks	135	HCL	PID	Intervention: 7.8±1.0 Control: 7.7±0.8	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Anderson et al. (2019) [2]	NCT02302963	Parallel	Home	Adolescents and adults	DiAs	SAP	Single	24 hours	4 weeks	42	HCL	MPC	Intervention: 7.2±0.2 Control: 7.5±0.2	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Bally et al. (2017) [3]	NCT02727231	Crossover	Home	Adults	FlorenceD2A	CSII	Single	24 hours	4 weeks	29	HCL	MPC	Total: 6.9±0.5	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Benhamou et al. (2019) [4]	NCT02987556	Crossover	Home	Adults	DBLG1	SAP	Single	24 hours	12 weeks	63	HCL	Machine-learning	Total: 7.6±0.9	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Benhamou et al. (2021) [5]	NCT04042207	Crossover	hospital and home	Adults	DBLHU	PLGS	Single	24 hours	4 weeks	7	HCL	Machine-learning	Total: 8.3±1.2	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Biester et al. (2019) [6]	NCT01238406	Crossover	Home	Adolescents and adults	MD-Logic System	SAP	Single	24 hours	60 hours	39	HCL	Fuzzy logic	Total: 7.7±0.8	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Blauw et al. (2021) [7]	NCT03858062	Crossover	Home	Adults	Inreda AP	Usual care with CGM	Dual	24 hours	2 weeks	23	FCL	Self-learning	Total: 7.5±0.8	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Blauw et al. (2016) [8]	NCT02160275	Crossover	Home	Adults	Inreda AP	CSII	Dual	24 hours	4 days	10	FCL	PID	Total: 7.7±0.5	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Boughton et al. (2023) [9]	NCT04977908	Crossover	Home	Adults	CamAPS HX	SAP	Single	24 hours	8 weeks	26	FCL	MPC	Total: 9.2±1.1	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Boughton et al. (2022a) [10]	NCT02871089	Parallel	Home	Adolescents	Initial FlorenceM followed by the CamAPS FX	Standard insulin therapy	Single	24 hours	24 months	97	HCL	MPC	Intervention: 10.7±1.8 Control: 10.5±1.6	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Boughton et al. (2022b) [11]	NCT04025762	Crossover	Home	Adults	CamAPS FX	SAP	Single	24 hours	16 weeks	37	HCL	MPC	Total: 7.4±0.9	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Breton et al. (2017) [12]	NCT02604524	Parallel	Winter camp	Adolescents	DiAs	SAP	Single	24 hours	5 days	32	HCL	MPC	Intervention: 8.9±1.9 Control: 8.1±1.1	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Breton et al. (2020) [13]	NCT03844789	Parallel	Home	Children	Control-IQ	SAP	Single	24 hours	16 weeks	101	HCL	MPC	Intervention: 7.6±1.0 Control: 7.9±0.9	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Brown et al. (2020) [14]	NCT03591354	Parallel	Home	Adolescents and adults	Control-IQ	PLGS	Single	24 hours	13 weeks	109	HCL	MPC	Intervention: 7.1±0.8 Control: 7.0±0.8	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Brown et al. (2017) [15]	NCT02131766, NCT02008188	Crossover	Hotel or research house (CLC session), home or usual environment (SAP session)	Adults	DiAs	SAP	Single	24 hours	5 days	40	HCL	MPC	Total: 7.4±0.8	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Brown et al. (2019) [16]	NCT03563313	Parallel	Home	Adolescents and adults	Control-IQ	SAP	Single	24 hours	26 weeks	168	HCL	MPC	Intervention: 7.6±1.1 Control: 7.6±1.1	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Burckhardt et al. (2021) [17]	ACTRN1261 6000909426	Crossover	Home	Adolescents and adults	MiniMed 670G	CSII	Single	24 hours	8 weeks	16	HCL	PID	Total: 7.8±1.2	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Burnside et al. (2022a) [18]	ACTRN1262 0000034932	Parallel	Home	Children	AndroidAPS 2.8	SAP	Single	24 hours	24 weeks	48	HCL	OpenAPS	Intervention: 7.5 Control: 7.5	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)

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Supplementary Table 1. Continued

Study	Trial registration	Study design	Setting	Population	Automated insulin delivery systems	Comparator	Single or dual hormone	24-hr or overnight	Follow-up	No. of patients	Type of closed-loop systems	Type of algorithm	HbA1c level at baseline, %	TIR	TBR
Burnside et al. (2022b) [18]	ACTRN1262 0000034932	Parallel	Home	Adults	AndroidAPS 2.8	SAP	Single	24 hours	24 weeks	49	HCL	OpenAPS	Intervention: 7.6 Control: 7.8	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Chernavvsky et al. (2016) [19]	NCT01890954	Crossover	Research house	Adolescents	DiAs	CSII	Single	24 hours	1 day	16	HCL	MPC	Total: 8.2±0.7	3.9–10.0 mmol/L (70–180 mg/dL)	NA
Choudhary et al. (2022) [20]	NCT04235504	Parallel	Home	Adults	MiniMed 670G 4.0	MDI+CGM	Single	24 hours	6 months	82	HCL	PID	Intervention: 9.0±1.0 Control: 9.1±0.7	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Collyns et al. (2021) [21]	NCT04073576	Crossover	Home	Children, adolescents and adults	MiniMed 670G 4.0	SAP+PLGM	Single	24 hours	4 weeks	60	HCL	PID	Total: 7.6±0.9	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
De Bock et al. (2015) [22]	ACTRN1261 4001005640	Crossover	Home	Adolescents and adults	MiniMed 670G	SAP+LGS	Single	24 hours	5 days	8	HCL	PID	Total: 7.5±0.6	4.0–9.9 mmol/L (72–178 mg/dL)	<3.9 mmol/L (70 mg/dL)
DeBoer et al. (2017) [23]	NCT02750267	Crossover	Home (insulin pump therapy), hotel (AP therapy)	Children	DiAs	SAP	Single	24 hours	68 hours	12	HCL	MPC	Total: 7.5±0.6	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Del Favero et al. (2016) [24]	NCT02620878	Crossover	Summer camp	Children	DiAs	SAP	Single	24 hours	3 days	30	HCL	MPC	Total: 7.3±0.9	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Ekhlaspour et al. (2019) [25]	NCT03369067	Parallel	Ski camp	Children and adolescents	Control-IQ	SAP	Single	24 hours	48 hours	48	HCL	MPC	Intervention: 7.8±1.3 Control: 7.7±0.9	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
El-Khatib et al. (2017) [26]	NCT02092220	Crossover	Home	Adults	Bihormonal bionic pancreas	CSII or SAP	Dual	24 hours	11 days	39	FCL	MPC	Total: 7.7±1.2	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Forlenza et al. (2019) [27]	NCT03369067	Parallel	Home	Children	Control-IQ	SAP	Single	24 hours	3 days	24	HCL	MPC	Intervention: 7.4±0.7 Control: 7.4±0.7	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Garg et al. (2022) [28]	NCT02748018	Parallel	Home	Children, adolescents and adults	MiniMed 670G	CSII	Single	24 hours	6 months	302	HCL	PID	Intervention: 8.3±1.3 Control: 8.1±1.2	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Haidar et al. (2015a) [29]	NCT02189694	Crossover	Diabetes camp	Children and adolescents	Accu-Chek Combo	CSII	Single	Overnight	3 nights	33	HCL	MPC	Total: 8.3±0.8	4.0–10.0 mmol/L (72–180 mg/dL)	<4.0 mmol/L (72 mg/dL)
Haidar et al. (2015b) [29]	NCT02189694	Crossover	Diabetes camp	Children and adolescents	Accu-Chek Combo	CSII	Dual	Overnight	3 nights	33	HCL	MPC	Total: 8.3±0.8	4.0–10.0 mmol/L (72–180 mg/dL)	<4.0 mmol/L (72 mg/dL)
Haidar et al. (2017a) [30]	NCT01966393	Crossover	Home	Adults	Accu-Chek Combo	SAP	Single	24 hours	60 hours	23	HCL	MPC	Total: 7.5±0.8	4.0–10.0 mmol/L (72–180 mg/dL)	<4.0 mmol/L (72 mg/dL)
Haidar et al. (2017b) [30]	NCT01966393	Crossover	Home	Adults	Accu-Chek Combo	SAP	Dual	24 hours	60 hours	23	HCL	MPC	Total: 7.5±0.8	4.0–10.0 mmol/L (72–180 mg/dL)	<4.0 mmol/L (72 mg/dL)
Haidar et al. (2016a) [31]	NCT01905020	Crossover	Home	Adolescents and adults	Single hormone	CSII	Single	Overnight	2 nights	28	HCL	MPC	Total: 7.5±1.0	4.0–10.0 mmol/L (72–180 mg/dL)	<4.0 mmol/L (72 mg/dL)
Haidar et al. (2016b) [31]	NCT01905020	Crossover	Home	Adolescents and adults	Dual hormone	CSII	Dual	Overnight	2 nights	28	HCL	MPC	Total: 7.5±1.0	4.0–10.0 mmol/L (72–180 mg/dL)	<4.0 mmol/L (72 mg/dL)
Hovorka et al. (2014) [32]	NCT01221467	Crossover	Home	Adolescents	Florence	SAP	Single	Overnight	3 weeks	16	HCL	MPC	Total: 8.0±0.9	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Kariyawasam et al. (2022a) [33]	NCT03671915	Crossover	Hospital	Children	Diabeloop DBL4K	SAP	Single	24 hours	72 hours	21	HCL	Machine learning	Total: 7.2±0.7	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Kariyawasam et al. (2022b) [33]	NCT03671915	Crossover	Home	Children	Diabeloop DBL4K	SAP	Single	24 hours	6 weeks	21	HCL	Machine learning	Total: 7.2±0.7	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)

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Supplementary Table 1. Continued

Study	Trial registration	Study design	Setting	Population	Automated insulin delivery systems	Comparator	Single or dual hormone	24-hr or overnight	Follow-up	No. of patients	Type of closed-loop systems	Type of algorithm	HbA1c level at baseline, %	TIR	TBR
Kovatchev et al. (2020) [34]	NCT02985866	Parallel	Home	Adolescents and adults	inControl AP	SAP	Single	24 hours	13 weeks	127	HCL	MPC	Intervention: 7.4±0.9 Control: 7.4±0.8	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Kovatchev et al. (2014) [35]	NCT01714505, NCT01727817, NCT01742741	Crossover	Hotel or guest-house	Adults	DiAs	SAP	Single	24 hours	40 hours	20	HCL	MPC	Total: 7.4±0.7	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Kropff et al. (2015) [36]	NCT02153190	Crossover	Home	Adults	DiAs	SAP	Single	Overnight	2 months	32	HCL	MPC	Total: 8.2±0.6	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Leelarathna et al. (2014) [37]	NCT01666028	Crossover	Home (first day in clinical research facility)	Adults	Florence	SAP	Single	24 hours	8 days	17	HCL	MPC	Total: 7.6±0.8	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Ly et al. (2014) [38]	NCT01973413	Crossover	Diabetes camp	Adolescents and adults	DiAs	SAP	Single	Overnight	5–6 days	20	HCL	MPC	Total: 8.1±1.1	NA	NA
Ly et al. (2016) [39]	Not reported	Crossover	Diabetes camp	Children and adolescents	Medtronic PID-IFB	SAP	Single	Overnight	5–6 days	21	HCL	PID	Total: 7.9±1.4	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Ly et al. (2015) [40]	NCT02366767	Parallel	Diabetes camp	Adolescents and adults	Medtronic PID-IFB	SAP+LGS	Single	24 hours	6 days	20	HCL	PID	Total: 8.6±1.5	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Matejko et al. (2022) [41]	NCT04616391	Parallel	Home	Adults	MiniMed 780G	MDI	Single	24 hours	3 months	37	HCL	PID	Intervention: 7.1±0.8 Control: 7.4±1.2	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
McAuley et al. (2020) [42]	ACTRN1261 7000520336	Parallel	Home	Adults	MiniMed 670G	MDI or CSII	Single	24 hours	26 weeks	120	HCL	PID	Intervention: 7.4±0.9 Control: 7.5±0.8	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
McAuley et al. (2022) [43]	ACTRN1261 9000515190	Crossover	Home	Adults	MiniMed 670G	SAP	Single	24 hours	4 months	30	HCL	PID	7.6±0.9	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
McVean et al. (2023) [44]	NCT04233034	Parallel	Home	Children and adolescents	Control-IQ or MiniMed 670G 4.0 or subsequently the MiniMed 780G	MDI or CSII with or without PLGS	Single	24 hours	52 weeks	113	HCL	PID	Intervention: 10.3±1.3 Control: 10.2±1.6	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Nimri et al. (2017) [45]	NCT01726829	Crossover	Home	Children, adolescents and adults	MD-Logic system	SAP	Single	Overnight	4 nights	75	HCL	Fuzzy logic	Total: 7.8±0.7	NA	<3.9 mmol/L (70 mg/dL)
Nimri et al. (2014) [46]	NCT01238406	Crossover	Home	Adolescents and adults	MD-Logic system	SAP	Single	Overnight	6 weeks	24	HCL	Fuzzy logic	Total: 7.5±0.8	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Phillip et al. (2013) [47]	NCT01238406	Crossover	Diabetes Camp	Adolescents	MD-Logic system	SAP	Single	Overnight	1 night	56	HCL	Fuzzy logic	Total: 8.0±0.7	NA	<3.9 mmol/L (70 mg/dL)
Pinsker et al. (2022) [48]	NCT04436796	Crossover	Home	Adults	iAPS	SAP	Single	24 hours	13 weeks	35	HCL	MPC	Total: 6.7±1.0	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Reddy et al. (2016) [49]	Not reported	Crossover	Clinical research facility	Adults	BiAP	CSII	Single	24 hours	24 hours	12	HCL	Bio-inspired control algorithm	Total: 7.4±0.7	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Renard et al. (2019) [50]	NCT02509429	Crossover	Hotel	Children	DiAs	TLGS	Single	24 hours	3 days	24	HCL	MPC	Total: 7.5±0.5	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Russell et al. (2022) [51]	NCT04200313	Parallel	Home	Children, adolescents and adults	iLet bionic pancreas	Any insulin-delivery method with CGM	Single	24 hours	13 weeks	326	FCL	Machine learning	Intervention: 7.9±1.2 Control: 7.7±1.1	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)

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Supplementary Table 1. Continued

Study	Trial registration	Study design	Setting	Population	Automated insulin delivery systems	Comparator	Single or dual hormone	24-hr or overnight	Follow-up	No. of patients	Type of closed-loop systems	Type of algorithm	HbA1c level at baseline, %	TIR	TBR
Russell et al. (2014a) [52]	NCT01762059	Crossover	Home (control), hotel (intervention)	Adults	Bionic pancreas	SAP	Dual	24 hours	5 days	20	FCL	MPC	Total: 7.1±0.8	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Russell et al. (2014b) [52]	NCT01833988	Crossover	Diabetes camps	Adolescents	Bionic pancreas	SAP	Dual	24 hours	5 days	32	FCL	MPC	Total: 8.2±1.0	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Russell et al. (2016) [53]	NCT02105324	Crossover	Diabetes camps	Children	Bionic pancreas	SAP	Dual	24 hours	5 days	19	FCL	MPC	Total: 7.8±0.8	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Sharifi et al. (2016) [54]	Not reported	Crossover	Home	Adolescents and adults	Android-HCL systems	SAP with LGS	Single	Overnight	4 nights	28	HCL	PID	Total: 7.5±0.6	NA	<4.0 mmol/L (72 mg/dL)
Tauschmann et al. (2016a) [55]	NCT01873066	Crossover	Home	Adolescents	FlorenceD2A	SAP	Single	24 hours	21 days	12	HCL	MPC	Total: 8.5±0.7	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Tauschmann et al. (2016b) [56]	NCT01873066	Crossover	Home	Adolescents	FlorenceD2A	SAP	Single	24 hours	7 days	12	HCL	MPC	Total: 8.3±0.9	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Tauschmann et al. (2018) [57]	NCT02523131	Parallel	Home	Children, adolescents and adults	FlorenceM	SAP	Single	24 hours	12 weeks	86	HCL	MPC	Total: 8.3±0.6	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Thabit et al. (2015a) [58]	NCT01440140, NCT01221467	Crossover	Home	Children and adults	Florence	SAP	Single	24 hours	4 weeks (adults), 3 weeks (children)	40	HCL	MPC	Adults: 8.1±0.8; Children: 8.0±0.9	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Thabit et al. (2014) [59]	NCT01440140	Crossover	Home	Adults	Florence	SAP	Single	24 hours	4 weeks	24	HCL	MPC	Total: 8.1±0.8	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Thabit et al. (2015b) [60]	NCT01961622	Crossover	Home	Adults	FlorenceD2A	SAP	Single	24 hours	12 weeks	33	HCL	MPC	Total: 8.5±0.7	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Thabit et al. (2015c) [60]	NCT01778348	Crossover	Home	Children and adolescents	FlorenceD2A	SAP	Single	Overnight	12 weeks	25	HCL	MPC	Total: 8.1±0.9	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
von dem Berge et al. (2022) [61]	NCT03815487	Crossover	Home	Children	MinMed 670G	PLGS	Single	24 hours	8 weeks	38	HCL	PID	Total: 7.4±0.9	3.9–10.0 mmol/L (70–180 mg/dL)	NA
Wadwa et al. (2023) [62]	NCT04796779	Parallel	Home	Children	Control-IQ	CSII or MDI+CGM	Single	24 hours	13 weeks	102	HCL	MPC	Intervention: 7.5±1.2 Control: 7.7±0.9	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Ware et al. (2022a) [63]	NCT03784027	Crossover	Home	Children	CamAPS FX	SAP	Single	24 hours	16 weeks	74	HCL	MPC	Total: 7.3±0.7	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Ware et al. (2022b) [64]	NCT02925299	Parallel	Home	Children and adolescents	Florencem and camAPS FX	CSII	Single	24 hours	6 months	133	HCL	MPC	Intervention: 8.2±0.7 Control: 8.3±0.7	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Wilson et al. (2020a) [65]	NCT03424044	Crossover	Home	Adults	Single hormone	PLGS	Single	24 hours	76 hours	23	HCL	PID	Total: 7.1±0.9	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)
Wilson et al. (2020b) [65]	NCT03424044	Crossover	Home	Adults	Dual hormone	PLGS	Dual	24 hours	76 hours	23	HCL	PID	Total: 7.1±0.9	3.9–10.0 mmol/L (70–180 mg/dL)	<3.9 mmol/L (70 mg/dL)

HbA1c, glycosylated hemoglobin; TIR, time in range; TBR, time below range; CSII, continuous subcutaneous insulin infusion; MDI, multiple daily injection; HCL, hybrid closed-loop; PID, proportional integral derivative; DiAs, diabetes assistant; SAP, sensor-augmented pump; MPC, model predictive control; DBLG1, Diabeloop Generation 1; DBLHU, Diabeloop for Highly Unstable Diabetes; PLGS, predictive low glucose suspend system; AP, artificial pancreas; CGM, continuous glucose monitor; FCL, full closed-loop; CLC, closed-loop control; NA, not applicable; PLGM, predictive low glucose monitoring; LGS, low glucose suspend; iAPS, inter-operable artificial pancreas system; BiAP, Bio-inspired Artificial Pancreas; TLGS, threshold-low-glucose-suspend.

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