

Supplementary Appendix 1. Search strategy to identify relevant studies across databases

Search no.	Search query
CINAHL	
#1	CVD OR cardiovascular disease OR Heart failure OR CAD OR coronary artery disease OR hypertension
#2	Mobile Applications
#3	Telemedicine
#4	Smartphone
#5	ehealth OR mhealth OR e-health OR m-health
#6	app-based OR app*
#7	smartphone* OR telemedicine* OR mobile application*
#8	S2 OR S3 OR S4 OR S5 OR S6 OR S7
#9	iPhone* OR android OR handheld* OR phone call* OR short messag* OR multimedia messag* OR reminder system OR social media* OR social network* OR Facebook OR Youtube OR WhatsApp OR Google* OR Twitter OR WeChat OR LinkedIn OR Instagram OR Pinterest OR Badoo OR Kakao* OR Snapchat OR smartwatch OR wearable OR technology* OR monitoring device OR internet support OR SNS
#10	S8 OR S9
#11	Medication Adherence
#12	S1 AND S10
#13	S1 AND S11
#14	S12 AND S13
#15	S12 AND S13
	Filter: in the last 10 years, Clinical Trial, Randomized Controlled Trial, English
Cochrane Library	
#1	CVD OR cardiovascular disease OR Heart failure OR CAD OR coronary artery disease OR hypertension
#2	Mobile Applications
#3	Telemedicine
#4	Smartphone
#5	ehealth OR mhealth OR e-health OR m-health
#6	app-based OR app*
#7	smartphone* OR telemedicine* OR mobile application*
#8	#2 OR #3 OR #4 OR #5 OR #6 OR #7
#9	iPhone* OR android OR handheld* OR phone call* OR short messag* OR multimedia messag* OR reminder system OR social media* OR social network* OR Facebook OR Youtube OR WhatsApp OR Google* OR Twitter OR WeChat OR LinkedIn OR Instagram OR Pinterest OR Badoo OR Kakao* OR Snapchat OR smartwatch OR wearable OR technology* OR monitoring device OR internet support OR SNS
#10	#8 OR #9
#11	Medication Adherence
#12	#1 AND #10
#13	#1 AND #11
#14	#12 AND #13
	Filter: with Cochrane Library publication date from Jan 2015 to Jul 2025, in Trials
#15	S12 AND S13
	Filter: in the last 10 years, Clinical Trial, Randomized Controlled Trial, English
Embase	
#1	CVD OR cardiovascular disease OR Heart failure OR CAD OR coronary artery disease OR hypertension
#2	Mobile Applications
#3	Telemedicine
#4	Smartphone
#5	ehealth OR mhealth OR e-health OR m-health
#6	app-based OR app*
#7	smartphone* OR telemedicine* OR mobile application*
#8	#2 OR #3 OR #4 OR #5 OR #6 OR #7

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Supplementary Appendix 1. Coninued

Search no.	Search query
#9	iPhone* OR android OR handheld* OR phone call* OR short messag* OR multimedia messag* OR reminder system OR social media* OR social network* OR Facebook OR Youtube OR WhatsApp OR Google* OR Twitter OR WeChat OR LinkedIn OR Instagram OR Pinterest OR Badoo OR Kakao* OR Snapchat OR smartwatch OR wearable OR technology* OR monitoring device OR internet support OR SNS
#10	#8 OR #9
#11	Medication Adherence
#12	#1 AND #10
#13	#1 AND #11
#14	#12 AND #13
#15	#12 AND #13 AND ([controlled clinical trial]/lim OR [randomized controlled trial]/lim) AND [english]/lim AND [embase]/lim AND [2015-2025]/py
PubMed	
#1	CVD OR cardiovascular disease OR Heart failure OR CAD OR coronary artery disease OR hypertension
#2	Mobile Applications
#3	Telemedicine
#4	Smartphone
#5	ehealth OR mhealth OR e-health OR m-health
#6	app-based OR app*
#7	smartphone* OR telemedicine* OR mobile application*
#8	#2 OR #3 OR #4 OR #5 OR #6 OR #7
#9	iPhone* OR android OR handheld* OR phone call* OR short messag* OR multimedia messag* OR reminder system OR social media* OR social network* OR Facebook OR Youtube OR WhatsApp OR Google* OR Twitter OR WeChat OR LinkedIn OR Instagram OR Pinterest OR Badoo OR Kakao* OR Snapchat OR smartwatch OR wearable OR technology* OR monitoring device OR internet support OR SNS
#10	#8 OR #9
#11	Medication Adherence
#12	#1 AND #10
#13	#1 AND #11
#14	#12 AND #13
#15	#12 AND #13
	Filter: in the last 10 years, Clinical Trial, Randomized Controlled Trial, English