

Table S1: Search strategy for MEDLINE (OVID):1994 to October 2024 . “mp” indicates multi-purpose search terms in the title, original title, abstract, subject heading, name of substance and registry word fields; “tw” indicates that the term is a text word meaning the title and abstract; “ab” indicates all searchable words from the abstract; “/” indicates that it is a Medical Subject Heading (MeSH) term; “\$” indicates all possible suffix variations of the root word; “adj” plus a number between any two terms returns records that contain both terms within the specified number of words from each other; “Pt” indicates publication types, such as reviews, clinical trials, directories and letters.

#	Searches
1	calcium channel blockers.mp.
2	(calcium adj2 (inhibit\$ or blockader?)).tw.
3	Dihydropyridine.ab.
4	Amlodipine.mp.
5	Azelnidipine.mp.
6	Barnidipine.mp.
7	Benidipine.mp.
8	Cilnidipine.mp.
9	Clevidipine.mp.
10	Efonidipine.mp.
11	Felodipine.mp.
12	Lacidipine.mp.
13	Lercanidipine.mp.
14	Manidipine.mp.
15	Nicardipine.mp.
16	Nifedipine.mp.
17	Nilvadipine.mp.
18	Thiazides.mp.
19	Thiazides diuretics.mp.
20	Indapamide. mp.
21	Chlorthalidone.mp.
22	Hydrochlorothiazide.mp.
23	or/1-22
24	hypertension/
25	hypertens\$.tw.
26	(blood adj pressure).tw.
27	Heart failure/
28	(heart adj failure).tw.

29	or/24-28
30	23 and 29
31	randomized controlled trial.pt.
32	randomized.ab.
33	placebo.tw.
34	drug therapy.tw.
35	randomly.ab.
36	trial.ab.
37	or/30-36
38	animals/ not (humans/ and animals/)
39	37 not 38
40	30 and 39
	limit 40 to (yr="1994-2024" and "all adult (19 plus years)")

Table S2: Search strategy for EMBASE (OVID):1994 to October 2024 . “mp” indicates multi-purpose search terms in the title, original title, abstract, subject heading, name of substance and registry word fields; “tw” indicates that the term is a text word meaning the title and abstract; “ab” indicates all searchable words from the abstract; “/” indicates that it is a Medical Subject Heading (MeSH) term; “\$” indicates all possible suffix variations of the root word; “adj” plus a number between any two terms returns records that contain both terms within the specified number of words from each other; “Pt” indicates publication types, such as reviews, clinical trials, directories and letters; “?” indicates the retrieval of documents with British and American word variants; “sh” indicates all searchable words in the subject heading field; “hw” indicates all searchable words in the heading word field.

#	Searches
1	calcium channel blockers.mp.
2	(calcium adj2 (inhibit\$ or blockader?)).tw.
3	Amlodipine.mp.
4	Azelnidipine.mp.
5	Barnidipine.mp.
6	Benidipine.mp.
7	Cilnidipine.mp.
8	Clevidipine.mp.
9	Efonidipine.mp.
10	Felodipine.mp.
11	Lacidipine.mp.

12	Lercanidipine.mp.
13	Manidipine.mp.
14	Nicardipine.mp.
15	Nifedipine.mp.
16	Nilvadipine.mp.
17	Dihydropyridine.ab.
18	Thiazides.mp.
19	Thiazides diuretics.mp.
20	Indapamide. mp.
21	Chlorthalidone.mp.
22	Hydrochlorothiazide.mp.
23	or/1-22
24	hypertension/
25	hypertens\$.tw.
26	(blood adj pressure).tw.
27	Heart failure/
28	(heart adj failure).tw.
29	or/24-28
30	23 and 29
31	randomized controlled trial.pt.
32	crossover procedure.mp.
33	double-blind procedure.mp.
34	(doubl\$ adj blind\$).tw.
35	(clin\$ adj25 trial\$).tw.
36	placebo\$.tw.
37	random\$.tw.
38	(meta?analys\$ or systematic review\$).tw.
39	(crossover\$ or cross-over\$).tw.
40	or/31-39
41	(animal\$ not human\$).sh,hw.
42	40 not 41
43	30 and 40 and 42
	limit 30 to (yr="1994 - 2024" and adult <18 to 64 years>)

Table S3: Search strategy for CENTRAL:1994 to October 2024 . “tw” indicates that the term is a text word, meaning the title and abstract; “mp” indicates multi-purpose search terms in the title, original title, abstract, subject heading, name of substance and registry word fields ; “\$” indicates all possible suffix variations of the root word; “adj” plus a number between any two terms returns records that contain both terms within the specified number of words from each other; “/” indicates that it is a Medical Subject Heading (MeSH) term

#	Searches
1	calcium channel blockers.tw.
2	(calcium adj2 (inhibit\$ or blockader?)).tw.
3	Amlodipine.mp.
4	Azelnidipine.mp.
5	Barnidipine.mp.
6	Benidipine.mp.
7	Cilnidipine.mp.
8	Efonidipine.mp.
9	Felodipine.mp.
10	Lacidipine.mp.
11	Lercanidipine.mp.
12	Manidipine.mp.
13	Nicardipine.mp.
14	Nifedipine.mp.
15	Thiazides.mp.
16	Thiazides diuretics.mp.
17	Indapamide. mp.
18	Chlorthalidone.mp.
19	Hydrochlorothiazide.mp.
20	#11 OR #10 OR #9 OR #8 OR #7 OR #6 OR #5 OR #4 OR #3 OR #2 OR #1 #12 OR #13 OR #14 OR #14 OR #15 OR #16 OR #17 OR #18 OR #19
21	Hypertension.tw.
22	hypertens\$.tw.
23	(blood adj pressure).tw.
24	Heart failure/
25	(heart adj failure).tw.
26	#24 OR #23 OR #22 OR #21 OR #20

27	#25 and #20
28	limit to Publication Year from 1994to 2024

Table S4: Search strategy for Web of Science:1994 to October 2024 . “TS” indicates all searchable words in the topic subject; “TI” indicates all searchable words in the title; “” indicates a search for the exact phrase appearing between the quotation marks.

#	Searches
1	TS=”calcium channel blockers”
2	TS=”Amlodipine”
3	TS=”Azelnidipine”
4	TS=”Barnidipine”
5	TS=”Benidipine”
6	TS=”Cilnidipine”
7	TS=”Efonidipine”
8	TS=”Felodipine”
9	TS=”Lacidipine”
10	TS=”Lercanidipine”
11	TS=”Manidipine ”
12	TS=”Nicardipine”
13	TS=”Nifedipine”
14	TS=”Nilvadipine”
15	TS=”Thiazides ”
16	TS=”Thiazides diuretics”
17	TS=”Indapamide ”
18	TS=” Chlorthalidone”
19	TS=” Hydrochlorothiazide”
20	#11 OR #10 OR #9 OR #8 OR #7 OR #6 OR #5 OR #4 OR #3 OR #2 OR #1 #12 OR #13 OR #14 OR #14 OR #15 OR #16 OR #17 OR #18 OR #19

21	TS="Hypertension"
22	TS="Heart failure"
23	#21 OR #22
24	#20 and #23
25	TI="randomized controlled trial"
26	TI="controlled clinical trial"
27	TS="Randomized"
28	TS="Placebo"
29	TI="drug therapy"
30	TS="Randomly"
31	TI="Trial"
32	#31 OR #30 OR #29 OR #28 OR #27 OR #26 OR #25
33	TS=(animals/ not (humans/ and animals/))
34	#32 NOT #33
35	#24 and #34
	limit to Publication Year from 1994 to 2024