

B.1 Clinical search literature search strategy

Searches were constructed using a PICO framework where population (P) terms were combined with Intervention (I) and in some cases Comparison (C) terms. Outcomes (O) are rarely used in search strategies for interventions as these concepts may not be well described in title, abstract or indexes and therefore difficult to retrieve. Search filters were applied to the search where appropriate.

Table 17: Database date parameters and filters used

Database	Dates searched	Search filter used
Medline (OVID)	1946 – 10 September 2020	Exclusions Randomised controlled trials Systematic review studies

Database	Dates searched	Search filter used
		Observational studies Diagnostic tests studies
Embase (OVID)	1974 – 10 September 2020	Exclusions Randomised controlled trials Systematic review studies Observational studies Diagnostic tests studies
The Cochrane Library (Wiley)	Cochrane Reviews to 2020 Issue 9 of 12 CENTRAL to 2020 Issue 9 of 12	None

Medline (Ovid) search terms

1.	exp atrial fibrillation/
2.	((atrial or atria or atrium or auricular) adj3 fibrillat*).ti,ab.
3.	AF.ti,ab.
4.	1 or 2 or 3
5.	letter/
6.	editorial/
7.	news/
8.	exp historical article/
9.	Anecdotes as Topic/
10.	comment/
11.	case report/
12.	(letter or comment*).ti.
13.	or/5-12
14.	randomized controlled trial/ or random*.ti,ab.
15.	13 not 14
16.	animals/ not humans/
17.	exp Animals, Laboratory/
18.	exp Animal Experimentation/
19.	exp Models, Animal/
20.	exp Rodentia/
21.	(rat or rats or mouse or mice).ti.
22.	or/15-21
23.	4 not 22
24.	limit 23 to English language
25.	exp "sensitivity and specificity"/
26.	(sensitivity or specificity).ti,ab.
27.	((pre test or pretest or post test) adj probability).ti,ab.
28.	(predictive value* or PPV or NPV).ti,ab.
29.	likelihood ratio*.ti,ab.
30.	likelihood function/
31.	((area under adj4 curve) or AUC).ti,ab.
32.	(receive* operat* characteristic* or receive* operat* curve* or ROC curve*).ti,ab.
33.	(diagnos* adj3 (performance* or accurac* or utilit* or value* or efficien* or effectiveness)).ti,ab.
34.	gold standard.ab.

35.	or/25-34
36.	randomized controlled trial.pt.
37.	controlled clinical trial.pt.
38.	randomi#ed.ab.
39.	placebo.ab.
40.	randomly.ab.
41.	clinical trials as topic.sh.
42.	trial.ti.
43.	or/36-42
44.	Meta-Analysis/
45.	exp Meta-Analysis as Topic/
46.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
47.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
48.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
49.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
50.	(search* adj4 literature).ab.
51.	(medline or pubmed or cochrane or embase or psychlit or psychlit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
52.	cochrane.jw.
53.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
54.	or/44-53
55.	Epidemiologic studies/
56.	Observational study/
57.	exp Cohort studies/
58.	(cohort adj (study or studies or analys* or data)).ti,ab.
59.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
60.	((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys* or cohort* or data)).ti,ab.
61.	Controlled Before-After Studies/
62.	Historically Controlled Study/
63.	Interrupted Time Series Analysis/
64.	(before adj2 after adj2 (study or studies or data)).ti,ab.
65.	exp case control study/
66.	case control*.ti,ab.
67.	Cross-sectional studies/
68.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
69.	or/55-68
70.	24 and (35 or 43 or 54 or 69)
71.	((portable or ambulatory or monitor* or lead* or handheld or hand held or daily or long-term or short-term or strap* or device*) adj3 (ECG* or EKG* or electrocardio*)).ti,ab.
72.	((ECG* or EKG* or electrocardio*) adj2 (assess* or check* or monitor* or detect* or screen* or diagnos* or measure*)).ti,ab.
73.	(iECG* or Holter*).ti,ab.
74.	((ambulatory or event) adj monitor*).ti,ab.
75.	*electrocardiography/ or electrocardiography, ambulatory/
76.	(ILR* or loop record*).ti,ab.

77.	((heart or cardiac) adj monitor*).ti,ab.
78.	(pulse adj2 (assess* or check* or monitor* or detect* or screen* or diagnos* or measure* or palpation*)).ti,ab.
79.	(pulse oximetr* adj device*).ti,ab.
80.	oximetry/
81.	Pulse/
82.	((blood pressure or BP) adj2 (assess* or check* or monitor* or detect* or screen* or diagnos* or measure*)).ti,ab.
83.	Blood Pressure Monitors/ or Blood Pressure Monitoring, Ambulatory/
84.	(AliveCor or MyDiagnostic*).ti,ab.
85.	(Microlife or WatchBP or "watch BP").ti,ab.
86.	(Heartscan or Zenicor or AliveECG or Kardia*).ti,ab.
87.	(photoplethysmograph* or PPG).ti,ab.
88.	(smartwatch* or smart watch* or Applewatch* or Apple watch* or wrist watch* or wristwatch* or fitness band* or fitness tracker* or smartphone* or smart phone* or mobile phone*).ti,ab.
89.	(wearable adj2 (technology or device* or sensor* or ECG or EKG or electrocardio*)).ti,ab.
90.	(mhealth or m-health or "mobile health").ti,ab.
91.	telemedicine/
92.	point of care.ti,ab.
93.	((targeted or oppotunistic) adj2 (detect* or screen*)).ti,ab.
94.	or/71-93
95.	70 and 94

Embase (Ovid) search terms

1.	exp atrial fibrillation/
2.	((atrial or atria or atrium or auricular) adj3 fibrillat*).ti,ab.
3.	AF.ti,ab.
4.	1 or 2 or 3
5.	letter.pt. or letter/
6.	note.pt.
7.	editorial.pt.
8.	case report/ or case study/
9.	(letter or comment*).ti.
10.	or/5-9
11.	randomized controlled trial/ or random*.ti,ab.
12.	10 not 11
13.	animal/ not human/
14.	nonhuman/
15.	exp Animal Experiment/
16.	exp Experimental Animal/
17.	animal model/
18.	exp Rodent/
19.	(rat or rats or mouse or mice).ti.
20.	or/12-19
21.	4 not 20
22.	limit 21 to English language
23.	exp "sensitivity and specificity"/

24.	(sensitivity or specificity).ti,ab.
25.	((pre test or pretest or post test) adj probability).ti,ab.
26.	(predictive value* or PPV or NPV).ti,ab.
27.	likelihood ratio*.ti,ab.
28.	((area under adj4 curve) or AUC).ti,ab.
29.	(receive* operat* characteristic* or receive* operat* curve* or ROC curve*).ti,ab.
30.	(diagnos* adj3 (performance* or accurac* or utilit* or value* or efficien* or effectiveness)).ti,ab.
31.	diagnostic accuracy/
32.	diagnostic test accuracy study/
33.	gold standard.ab.
34.	or/23-33
35.	random*.ti,ab.
36.	factorial*.ti,ab.
37.	(crossover* or cross over*).ti,ab.
38.	((doubl* or singl*) adj blind*).ti,ab.
39.	(assign* or allocat* or volunteer* or placebo*).ti,ab.
40.	crossover procedure/
41.	single blind procedure/
42.	randomized controlled trial/
43.	double blind procedure/
44.	or/35-43
45.	systematic review/
46.	Meta-Analysis/
47.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
48.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
49.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
50.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
51.	(search* adj4 literature).ab.
52.	(medline or pubmed or cochrane or embase or psychlit or psychlit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
53.	cochrane.jw.
54.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
55.	or/45-54
56.	Clinical study/
57.	Observational study/
58.	family study/
59.	longitudinal study/
60.	retrospective study/
61.	prospective study/
62.	cohort analysis/
63.	follow-up/
64.	cohort*.ti,ab.
65.	63 and 64
66.	(cohort adj (study or studies or analys* or data)).ti,ab.

67.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
68.	((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys* or cohort* or data)).ti,ab.
69.	(before adj2 after adj2 (study or studies or data)).ti,ab.
70.	exp case control study/
71.	case control*.ti,ab.
72.	cross-sectional study/
73.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
74.	or/56-73
75.	34 or 44 or 55 or 74
76.	22 and (34 or 44 or 55 or 74)
77.	((portable or ambulatory or monitor* or lead* or handheld or hand held or daily or long-term or short-term or strap* or device*) adj3 (ECG* or EKG* or electrocardio*)).ti,ab.
78.	((ECG* or EKG* or electrocardio*) adj2 (assess* or check* or monitor* or detect* or screen* or diagnos* or measure*)).ti,ab.
79.	(iECG* or Holter*).ti,ab.
80.	((ambulatory or event) adj monitor*).ti,ab.
81.	*electrocardiography/
82.	*ambulatory electrocardiography/
83.	(ILR* or loop record*).ti,ab.
84.	((heart or cardiac) adj monitor*).ti,ab.
85.	(pulse adj2 (assess* or check* or monitor* or detect* or screen* or diagnos* or measure* or palpation*)).ti,ab.
86.	(pulse oximetr* adj device*).ti,ab.
87.	*oximetry/
88.	*pulse rate/
89.	((blood pressure or BP) adj2 (assess* or check* or monitor* or detect* or screen* or diagnos* or measure*)).ti,ab.
90.	*blood pressure monitor/
91.	(AliveCor or MyDiagnostic*).ti,ab.
92.	(Microlife or WatchBP or "watch BP").ti,ab.
93.	(Heartscan or Zenicor or AliveECG or Kardia*).ti,ab.
94.	(photoplethysmograph* or PPG).ti,ab.
95.	(smartwatch* or smart watch* or Applewatch* or Apple watch* or wrist watch* or wristwatch* or fitness band* or fitness tracker* or smartphone* or smart phone* or mobile phone*).ti,ab.
96.	(wearable adj2 (technology or device* or sensor* or ECG or EKG or electrocardio*)).ti,ab.
97.	(mhealth or m-health or "mobile health").ti,ab.
98.	*telemedicine/
99.	point of care.ti,ab.
100.	((targeted or oppotunistic) adj2 (detect* or screen*)).ti,ab.
101.	or/77-100
102.	76 and 101

Cochrane Library (Wiley) search terms

#1.	MeSH descriptor: [Atrial Fibrillation] explode all trees
#2.	((atrial or atria or atrium or auricular) near/3 fibrillat*).ti,ab
#3.	AF:ti,ab

#4.	#1 or #2 or #3
#5.	((portable or ambulatory or monitor* or lead* or handheld or hand held or daily or long-term or short-term or strap* or device*) near/3 (ECG* or EKG* or electrocardio*)):ti,ab
#6.	((ECG* or EKG* or electrocardio*) near/2 (assess* or check* or monitor* or detect* or screen* or diagnos* or measure*)):ti,ab
#7.	(iECG* or Holter*):ti,ab
#8.	((ambulatory or event) next monitor*):ti,ab
#9.	MeSH descriptor: [Electrocardiography] this term only
#10.	MeSH descriptor: [Electrocardiography, Ambulatory] this term only
#11.	(ILR* or loop record*):ti,ab
#12.	((heart or cardiac) next monitor*):ti,ab
#13.	(pulse near/2 (assess* or check* or monitor* or detect* or screen* or diagnos* or measure* or palpation*)):ti,ab
#14.	(pulse oximetr* next device*):ti,ab
#15.	MeSH descriptor: [Oximetry] this term only
#16.	MeSH descriptor: [Pulse] this term only
#17.	((blood pressure or BP) near/2 (assess* or check* or monitor* or detect* or screen* or diagnos* or measure*)):ti,ab
#18.	MeSH descriptor: [Blood Pressure Monitors] this term only
#19.	MeSH descriptor: [Blood Pressure Monitoring, Ambulatory] this term only
#20.	(AliveCor or MyDiagnostic*):ti,ab
#21.	(Microlife or WatchBP or "watch BP"):ti,ab
#22.	(Heartscan or Zenicor or AliveECG or Kardia*):ti,ab
#23.	(photoplethysmograph* or PPG):ti,ab
#24.	(smartwatch* or smart watch* or Applewatch* or Apple watch* or wrist watch* or wristwatch* or fitness band* or fitness tracker* or smartphone* or smart phone* or mobile phone*):ti,ab
#25.	(wearable near/2 (technology or device* or sensor* or ECG or EKG or electrocardio*)):ti,ab
#26.	(mhealth or m-health or "mobile health"):ti,ab
#27.	MeSH descriptor: [Telemedicine] this term only
#28.	point of care:ti,ab
#29.	((targeted or oppotunistic) near/2 (detect* or screen*)):ti,ab
#30.	(or #5-#29)
#31.	#4 and #30