Title of metanalysis : Updated meta-analysis for antihypertensive treatment guided by home blood pressure compared to treatment based on office blood pressure: systematic review

PubMed ID of metaanalysis: 39719531

**Inclusion Criteria:**

Not mentioned clearly

Indirectly: A meta-analysis evaluated whether antihypertensive treatment

based on home BP is superior to that based on office

BP in adults aged ≥18 years with essential hypertension in a

region with an established medical system. Outcomes

included cardiovascular events and related deaths, dementia,

chronic kidney disease, change in ambulatory BP levels,

severe adverse events (all-cause mortality), and non-severe

adverse events (hypotension).

**Exclusion Criteria:**

Not mentioned

**Search terms:PubMed**

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| **#** | **Search words** | **N** |
| #1 | ("randomized controlled trial"[Publication Type] OR "controlled clinical trial"[Publication Type] OR "randomized"[Title/Abstract] OR "placebo"[Title/Abstract] OR "clinical trials as topic"[MeSH Terms] OR "randomly"[Title/Abstract] OR "trial"[Title]) NOT ("animals"[MeSH Terms] NOT "humans"[MeSH Terms]) | 1557052 |
| #2 | "blood pressure determination"[MeSH Terms] OR "blood pressure"[MeSH Terms] OR "arterial pressure"[MeSH Terms] OR "blood pressure monitoring, ambulatory"[MeSH Terms] OR "blood pressure monitors"[MeSH Terms] OR "hypertension"[MeSH Terms] OR "essential hypertension"[MeSH Terms] OR "antihypertensive agents"[MeSH Terms] OR "hypertens\*"[Title/Abstract] | 823603 |
| #3 | "Home Environment"[MeSH Terms] OR "Interactive Health Communication Applications"[Title/Abstract] OR "self measurement"[Title/Abstract] OR "self monitoring"[Title/Abstract] OR "self-recording"[Title/Abstract] OR "self-performed"[Title/Abstract] OR "home measurement"[Title/Abstract] OR "home intervention"[Title/Abstract] OR "home monitoring"[Title/Abstract] OR "remote monitoring"[Title/Abstract] OR "telecommunicat\*"[Title/Abstract] OR "teleconferenc\*"[Title/Abstract] OR "teleconsult\*"[Title/Abstract] OR "telemonitor\*"[Title/Abstract] OR "telehome\*"[Title/Abstract] OR "telecare"[Title/Abstract] OR "telehealth\*"[Title/Abstract] OR "telemed\*"[Title/Abstract] OR "telemetr\*"[Title/Abstract] OR "drug therapy, computer assisted"[MeSH Terms] OR "therapy, computer assisted"[MeSH Terms] OR "Internet"[MeSH Terms] OR "Computers"[MeSH Terms] OR "home care services, hospital based"[MeSH Terms] OR "Home Care Services"[MeSH Terms] OR "Remote Consultation"[MeSH Terms] OR "Telemetry"[MeSH Terms] OR "monitoring, ambulatory"[MeSH Terms] OR "Telecommunications"[MeSH Terms] OR "Telemedicine"[MeSH Terms] | 454251 |
| #4 | #1 and #2 and #3 | 3805 |

Included studies: 14 RCTs

Search Date: (Search date: March 19, 2024)

Included studies: 14 RCTs

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| Study title | Pubmed ID of included study |
| Broege PA, James GD, Pickering TG. Management of hypertension  in the elderly using home blood pressures. Blood Press  Monit. 2001;6:139–144. | **11518836** |
| Fuchs SC, Ferreira-da-Silva AL, Moreira LB, Neyeloff JL, Fuchs  FC, Gus M, et al. Efficacy of isolated home blood pressure  monitoring for blood pressure control: randomized controlled trial  with ambulatory blood pressure monitoring - MONITOR study. J  Hypertens. 2012;30:75–80. | **22134392** |
| Godwin M, Lam M, Birtwhistle R, Delva D, Seguin R, Casson I,  et al. A primary care pragmatic cluster randomized trial of the use  of home blood pressure monitoring on blood pressure levels in  hypertensive patients | **20032170** |
| Hanley J, Fairbrother P, Krishan A, McCloughan L, Padfield P,  Paterson M, et al. Mixed methods feasibility study for a trial of  blood pressure telemonitoring for people who have had stroke/  transient ischaemic attack (TIA). Trials. 2015;16:117. | **25873155** |
| Ionov MV, Zhukova OV, Yudina YS, Avdonina NG, Emelyanov  IV, Kurapeev DI, et al. Value-based approach to blood pressure  telemonitoring and remote counseling in hypertensive patients.  Blood Press. 2021;30:20–30. | **32954832** |
| Madsen LB, Kirkegaard P, Pedersen EB. Blood pressure control  during telemonitoring of home blood pressure. A randomized  controlled trial during 6 months. Blood Press. 2008;17:78–86. | **18568696** |
| Martinez MA, Garcia-Puig J, Loeches MP, Mateo MC, Utiel I,  Torres R, et al. Home blood pressure vs. clinic blood pressure  measurement-based follow up in type ii diabetics: Effect on 24-h  ambulatory BP and albuminuria. Randomised trial. Med Clin.  2018;150:413–20. | **28867335** |
| McKinstry B, Hanley J, Wild S, Pagliari C, Paterson M, Lewis S,  et al. Telemonitoring based service redesign for the management  of uncontrolled hypertension: multicentre randomised controlled  trial. BMJ. 2013;346:f3030. | **23709583** |
| Neumann CL, Menne J, Rieken EM, Fischer N, Weber MH,  Haller H, et al. Blood pressure telemonitoring is useful to achieve  blood pressure control in inadequately treated patients with arterial  hypertension. J Hum Hypertens. 2011;25:732–38. | **21228822** |
| Parati G, Omboni S, Albini F, Piantoni L, Giuliano A, Revera M,  et al. Home blood pressure telemonitoring improves hypertension  control in general practice. The TeleBPCare study. J Hypertens.  2009;27:198–203. | **19145785** |
| Rinfret S, Lussier MT, Peirce A, Duhamel F, Cossette S, Lalonde  L, et al. The impact of a multidisciplinary information technologysupported  program on blood pressure control in primary care.  Circulation Cardiovascular Qual Outcomes. 2009;2:170–7. | **20031834** |
| Rogers MA, Small D, Buchan DA, Butch CA, Stewart CM,  Krenzer BE, et al. Home monitoring service improves mean  arterial pressure in patients with essential hypertension. A randomized,  controlled trial. Ann Intern Med. 2001;134:1024–1032. | **11388815** |
| Staessen JA, Den Hond E, Celis H, Fagard R, Keary L, Vandenhoven  G, et al. Antihypertensive treatment based on blood  pressure measurement at home or in the physician’s office: a  randomized controlled trial. JAMA. 2004;291:955–64. | **14982911** |
| Verberk WJ, Kroon AA, Lenders JW, Kessels AG, van Montfrans  GA, Smit AJ, et al. Self-measurement of blood pressure at home  reduces the need for antihypertensive drugs: a randomized, controlled  trial. Hypertension. 2007;50:1019–25. | **17938383** |