

Is reducing blood pressure to below standard targets helpful?

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| Clinical Question | Does reducing blood pressure (BP) to 135/85 mmHg or less, reduce mortality and morbidity more than reducing it to a standard target of 140/90 mmHg? |
| Bottom Line | The evidence identified in this review does not support lower BP targets (less than 135/85 mmHg) as compared to standard BP targets (less than 140 mmHg /90 mmHg) in people with hypertension and established cardiovascular disease. This review detected no benefits for total mortality (RR 1.05, 95% CI 0.91 to 1.23) or cardiovascular mortality (RR 1.03, 95% CI 0.82 to 1.29) if BP was additionally reduced to a lower target. They also found that BP targets were more frequently achieved in the standard blood pressure target group (2849/3724 (75%) participants) than in the lower target group (3120/4875 (64%) participants) and more antihypertensive drugs were needed in the lower blood pressure target group (mean 2.4 drugs) than in the standard group (mean 1.9 drugs). There were also more withdrawals due to adverse effects in the lower target group (RR 8.16, 95% CI 2.06 to 32.28). |
| Caveat | There was limited data available for people aged 75 years or older and so no definitive conclusions could be made for this age group. The evidence for total mortality and cardiovascular mortality was moderate as the confidence intervals were wide and imprecise. The certainty for other outcomes was rated from low to very low due to small sample numbers and high risk of bias. |
| Context | Hypertension is a prominent preventable cause of premature morbidity and mortality. People with hypertension and established cardiovascular disease are at particularly high risk, so reducing blood pressure to below standard targets may be beneficial. This strategy could reduce cardiovascular mortality and morbidity but could also increase adverse events. The optimal blood pressure target in people with hypertension and established cardiovascular disease remains unknown. |
| Cochrane Systematic Review | Saiz LC, Gorricho J, Garjón J, Celaya MC, Erviti J, Leache L. Blood pressure targets for the treatment of people with hypertension and cardiovascular disease. Cochrane Database of Systematic Reviews 2022, Issue 11. Art. No.: CD010315. DOI: 10.1002/14651858.CD010315.pub5. This review contains 7 trials with a total of 9595 participants. |

Pearls No. 714, November 2022, written by Assoc Professor Vanessa MB Jordan.

Systematic review link:

<https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD010315.pub5/full>