

Does the use of Mobile Phones improve Adherence in those taking preventive medication for cardiovascular disease?

Clinical Question	Are mobile phone effective in improving adherence to medication prescribed for the primary prevention of cardiovascular disease (CVD) in adults?
Bottom Line	<p>The evidence for the intervention effect on LDL cholesterol was of low certainty. Two of the five studies reporting LDL cholesterol as an outcome recorded evidence of intervention benefit, albeit of a modest size. Reducing LDL-C (-9.20 mg/dL, and -5.3 mg/dL). The remaining three trials all had wide confidence intervals which included no effect.</p> <p>Low certainty evidence from four of the 13 studies recording systolic blood pressure showed evidence of intervention benefit. The same four trials also demonstrated a reduction in diastolic blood pressure associated with the intervention (He 2017; Liu 2015; Logan 2012; McManus 2018). The remaining studies again had wide confidence intervals but tended towards showing small benefits.</p>
Caveat	The studies were conducted in a range of settings, providing reasonable confidence in the applicability of results across different settings. Given that the inclusion criteria required trials have a minimum of one-year follow-up, the results are applicable to longer-term, sustained medication adherence behaviours and outcomes. Few studies reported on fatal or non-fatal cardiovascular events, so the authors were unable to establish if modest benefits observed in individual trials for cholesterol and blood pressure translated into patient-relevant outcomes.
Context	<p>CVD is a major cause of disability and mortality globally. Premature fatal and non-fatal CVD is considered to be largely preventable through the control of risk factors by lifestyle modifications and preventive medication.</p> <p>Lipid-lowering and antihypertensive drug therapies for primary prevention are cost-effective in reducing CVD morbidity and mortality among high-risk people and are recommended by international guidelines. However, adherence to medication prescribed for the prevention of CVD can be poor.</p>
Cochrane Systematic Review	Palmer MJ, Machiyama K, Woodd S, Gubijev A, Barnard S, Russell S, Perel P, Free C. Mobile phone-based interventions for improving adherence to medication prescribed for the primary prevention of cardiovascular disease in adults. Cochrane Database of Systematic Reviews 2021, Issue 3. Art. No.: CD012675. DOI: 10.1002/14651858.CD012675.pub3. This review contains 14 trials with a total of 25,633 participants.

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Systematic review link:

<https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD012675.pub3/full>