PEARLS

Practical Evidence About Real Life Situations

Effects of fixed-dose combination therapy for prevention of cardiovascular disease uncertain

Clinical Question	How effective is fixed-dose combination therapy (FDCT – blood pressure, cholesterol lowering and antiplatelet therapies, also known as a 'polypill') for the prevention of cardiovascular disease (CVD)?
Bottom Line	Compared with usual care, active control, or placebo for CVD prevention, the effects of FDCT on all-cause mortality or CVD events were uncertain due to low event rates, imprecision, and risk of bias. Only a few trials reported these outcomes and the included trials were primarily designed to observe changes in CVD risk factor levels rather than clinical events. FDCT was associated with lower blood pressure and lipids, though substantial heterogeneity of results existed. FDCT was associated with modest increases in adverse events compared with placebo, single drug active component, or usual care but might be associated with improved adherence to a multidrug regimen.
Caveat	The effects on quality of life were uncertain, and no cost data were reported. The heterogeneity might reflect differences in primary compared with secondary prevention studies, the composition of fixed-dose combinations, comparator groups, or all of the above. Several trials are ongoing.
Context	CVD is the leading cause of death and disability worldwide, yet CVD risk factor control and secondary prevention rates remain low. A fixed-dose combination of blood pressure and cholesterol lowering and antiplatelet treatments into a single pill, or polypill, has been proposed as one strategy to reduce the global burden of CVD by up to 80%, given its potential for better adherence and lower costs.
Cochrane Systematic Review	de Cates AN et al. Fixed-dose combination therapy for the prevention of cardiovascular disease. Cochrane Reviews, 2014, Issue 4. Art. No.: CD009868.DOI: 10.1002/14651858. CD009868.pub2. This review contains 9 studies involving 7,047 participants.