
All-in-One Pill Reduces Blood Pressure



A combination pill containing three medications used to tackle high blood pressure and one used for high cholesterol was found to reduce cardiovascular disease (CVD) risk by 25%.

The study, published in the New England Journal of Medicine (NEJM), assessed the effectiveness of atorvastatin, amlodipine, losartan and hydrochlorothiazide in polypill form in a randomised, controlled clinical trial.

Thomas Wang, MD, senior author of the study, stated how polypills are frequently used in low- to middle-income countries as a way to tackle reduced access to healthcare. However, Wang emphasised how this study shows how commonly-used strategies can be applied to new settings.

The study took place in Mobile, Alabama, with a total of 303 participants. 96% of this population were black individuals and 75% from a household with an annual income of less than \$15,000. This type of population has previously been ignored in previous clinical trials for CVD. Wang suggested that the polypill may help overcome barriers restricting health in areas such as these.

During their first visit, second month and one year visit, participants were subjected to a standard medical examination, where their blood pressure and blood cholesterol levels were also tested. After one year, the polypill cohort had a reduction in blood pressure by 7mm Hg on average and lower LDL cholesterol levels compared to the other group, who continued with their usual routines. This was estimated to reduce the chances of CVD events by 25% for the polypill cohort. Also, researchers noted an 86% adherence for the polypill group.

Lead author on the study, Daniel Muñoz, MD, explained that to improve outcomes for these previously under-represented citizens, we need a better understanding of what is working. At a cost of \$26 per month for polypill treatment, Muñoz states that a combination of the population-based strategies, like the polypill, and precision medicine is the way forward. As by giving more people access to affordable healthcare we can then adjust and personalise this based on the patient's needs.

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