

Largest ever analysis on the use of a polypill in cardiovascular disease

May 7 2014

New data presented for the first time at the World Heart Federation's World Congress of Cardiology 2014 shows a significant improvement in both patient adherence and risk factor control when patients at high risk of heart attack or stroke receive a polypill, compared to usual care. A polypill is a fixed dose combination of commonly-used blood pressure and cholesterol lowering medications, along with aspirin, which helps prevent cardiovascular disease (CVD).

The Single Pill to Avert Cardiovascular Events (SPACE) project, led by researchers from The George Institute for Global Health, analysed data from 3140 [patients](#) with established CVD or at [high risk](#) of CVD in Europe, India and Australasia. The results showed a 43 per cent increase in [patient adherence](#) to medication at 12 months with the polypill, in addition to corresponding improvements in systolic blood pressure and LDL-cholesterol that were highly statistically significant. The largest benefits were seen among patients not receiving all recommended medications at baseline, which corresponds to most [cardiovascular disease](#) patients globally.

"These results are an important step forward in the polypill journey and management of cardiovascular disease", commented Ruth Webster of the George Institute for Global Health, Sydney. "Most patients globally either don't start or don't continue taking all the medications they need, which can lead to untimely death or further CVD events. An important finding from our analyses is that the greatest benefits from a polypill were for currently untreated individuals. Although the idea of a polypill

has always been appealing, we now have the most comprehensive real-world analysis to date of this treatment strategy in high risk CVD patients. Given the potential affordability, even in low income countries, there is considerable potential to improve [global health](#)."

CVD is the number one cause of death globally, killing 17.3 million people each year and it is expected to remain the world's leading cause of death in the near future. Access to effective treatment like polypills can play a key part in achieving the bold World Health Organization (WHO) target of at least a 25 per cent reduction in premature mortality from NCDs by 2025, especially as a polypill can be cheaper than several individual drugs.

Professor Salim Yusuf, President-elect of the World Heart Federation said: "These results emphasize the importance of the polypill as a foundation for a global strategy on cardiovascular disease prevention. It will improve patient access to essential medications at an affordable cost and wide use of the polypill can avoid several millions of premature CVD events. The polypill is however not a replacement for a healthy lifestyle and should be combined with tobacco avoidance, a healthy diet and enhanced physical activity. This broad strategy, if adopted widely, can reduce cardiovascular disease to a large extent."

SPACE combined results from three clinical studies which took place from 2009 – 2013: UMPIRE (Europe and India), Kanyini-GAP (Australia) and IMPACT (New Zealand). Importantly, in the Australasian trials, half the patients were indigenous. Further analysis of this unique data source is underway to investigate the effect of the [polypill](#) on major patient groups and the results of this are expected over the coming year.

Provided by World Heart Federation

Citation: Largest ever analysis on the use of a polypill in cardiovascular disease (2014, May 7)
retrieved 1 May 2024 from

<https://medicalxpress.com/news/2014-05-largest-analysis-polypill-cardiovascular-disease.html>

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