QUARTET TRIAL

Is the quadpill the future of blood pressure control?

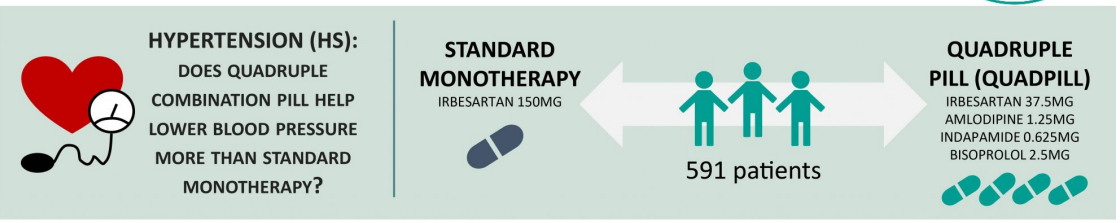
TABLE OF CONTENTS

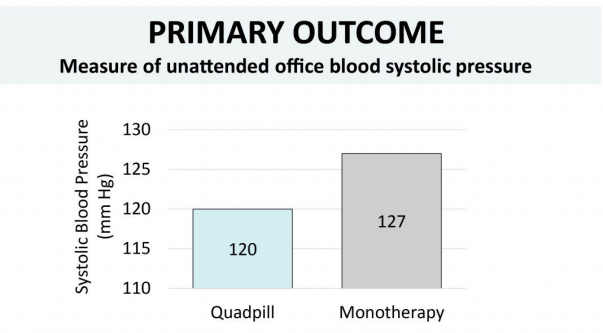
BACKGROUND

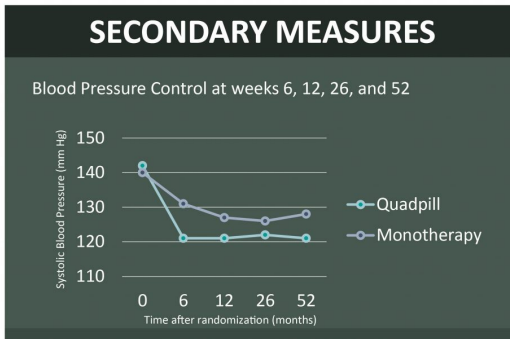
In this month's journal club, we learned about and discussed hypertension treatment. Hypertension (or elevated blood pressure) is a severe medical condition faced by more than a billion people worldwide and significantly increases the risk of brain, heart and kidney diseases.

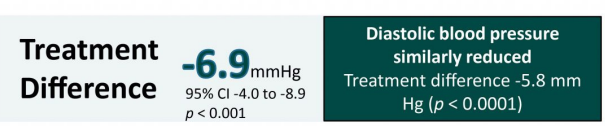
Prior studies have indicated that low dose blood pressure-lowering quadruple therapy could achieve quicker and better blood pressure control with minimum side effects compared to current hypertension medications on the market. Combining different medicines into a single pill would simplify the treatment. This clinical trial aimed to determine if a combination pill of four ultra-low-doses of blood pressure-lowering medicines would lower blood pressure more effectively than standard-dose monotherapy. The study also investigated whether the quad pill would prove to have minimum side effects and provide a cost-effective solution in the long term. The investigators took the views of participants and healthcare providers into account.

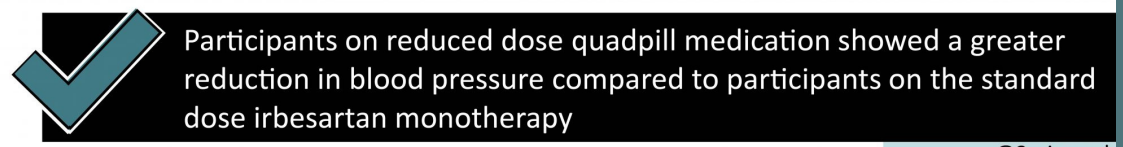
Quadruple combination pill for hypertension is more effective at lowering blood pressure than standard dose monotherapy











Key Points

- **Participants on reduced dose quad pill medication showed a more significant reduction in blood pressure than participants on the standard dose irbesartan monotherapy at 12 and 52 weeks after randomization.**
- **Participants on monotherapy management required more frequent uptitration compared to the quad pill group.**

METHODS

- The study randomised 591 people with high blood pressure to receive the ultra-low-dose combination pill or standard dose irbesartan for 12 weeks in the main study, and 12 months in the extended sub study.
- Observations made include changes in blood pressure, 24-hour ambulatory blood pressure, potential side effects, and adherence to medicines from the start of the study to the end.
- Participants and healthcare providers were invited to provide feedback and participate in interviews to determine the acceptability of ultra-low-dose combination pill

FINDINGS AND INTERPRETATIONS

According to the results shown, the blood pressure by various measurement methods at weeks 6, 12, 26, and 52 in participants who received the quad pill treatment (intervention group) was lower than those who received monotherapy (control group). However, both groups faced side effects of a similar magnitude. Overall, the strategy demonstrated in this clinical trial has shown that the quad pill (containing irbesartan, amlodipine, indapamide, and bisoprolol) is more effective in lowering blood pressure compared to a single medication (irbesartan).

As the trial results indicate, a quad pill therapy method is safe and effective. As these results are quite favourable, they should stimulate the development of such products over time. If used, it would improve clinical practice and significantly reduce cardiovascular events.

Sources: https://doi.org/10.1016/S0140-6736(21)01922-X
World Health Organisation (WHO) - Hypertension Fact Sheet