

The success of TRIUMPH, the clinical trial that demonstrated the benefits of a triple-combination pill for controlling blood pressure, laid the foundation for the GMRX2 trial, the first ever large-scale comparison of triple half-dose versus dual half-dose polypills. However, TRIUMPH left several important questions unanswered; most notably, how the triple combination would compare against dual therapies, and whether the benefits seen in Sri Lanka could be generalized to broader international populations. The study investigated a new, low-dose, triple single-pill combination called GMRX2, that could transform blood pressure control in low- and middle-income countries (LMICs). This was tested in a placebo-controlled trial to assess the product as a whole, and in a trial against three different dual therapies, to assess each component one by one. During the trial participants were recruited from 7 countries including Australia, Czech Republic, New Zealand, Poland, Sri Lanka, UK and the USA. A total of 260 participants, almost 50% were recruited from hospitals across Sri Lanka, highlighting the country's significant contribution to the study and reflecting RemediumOne's effective collaboration with local healthcare institutions to ensure successful recruitment and trial execution.

For many with high blood pressure, reaching a target of below 140/90 mm Hg requires three or more medications. The GMRX2 trial showed that adding a third drug in a low-dose triple combination significantly improves blood pressure control.

Study Design:

- The GMRX2 trial was a randomized, double-blind, active-controlled, international clinical trial.
- The study compared the efficacy and safety of low-dose triple-pill combination of telmisartan, amlodipine, and indapamide against various dual combinations of these components.
- Participants were randomised in 2:1:1:1 to either receive the GMRX2 half-dose combination or one of the three possible dual combinations of the components at half doses. At week 6 doses were doubled in all groups.
- Participants were administered with one GMRX2 capsule in the morning either before or after breakfast.
- The primary outcome was mean change in home systolic BP from baseline to week 12.

Key Findings:

- The GMRX2 group exhibited the greatest reduction in blood pressure compared to the dual combinations.
- The G MRX2 group also achieved a 74% success rate in reaching the target blood pressure of <140/90 mmHg, compared to 53-61% in the dual-combination groups.

Safety and Adverse Events:

- Treatment tolerability was good among participants, with no increase in withdrawal due to adverse events, demonstrating its safety and minimal side effects.
- The most reported adverse events were symptomatic hypotension, headache, and peripheral edema, with few participants experiencing a serious adverse event due to COVID-19.

Conclusion:

- The trial showed that triple therapy was more effective than dual therapy, significantly reducing both home and clinic blood pressure and improving blood pressure control at both half and standard doses.
- By directly comparing the triple combination to dual combinations, the trial provided definitive evidence of the additive benefit of the third drug and explored the optimal dosing regimen, ensuring effective blood pressure control while minimizing side effects.