



Study Summary

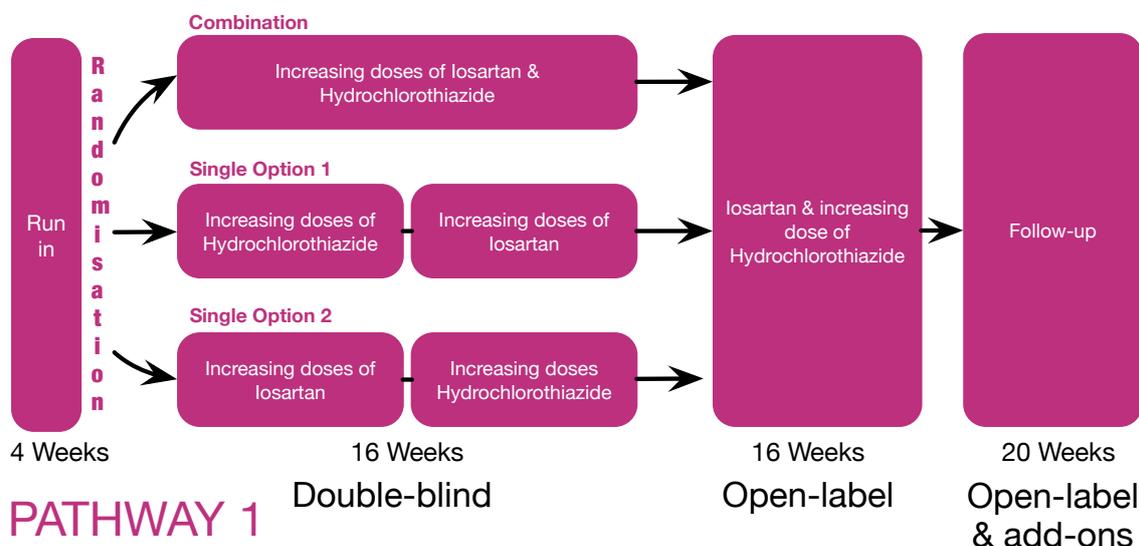
Multi-centre Phase 4 Studies:

Prevention And Treatment of Hypertension With Algorithm based therapY

Funded by the *British Heart Foundation* at eight centres of the *British Hypertension Society Research Network* around the UK — three clinical trials of licensed medicines aiming to address some important areas of uncertainty in the current management of hypertension.

PATHWAY 1

Monotherapy vs Dual Therapy for Initial treatment for Hypertension



Other clinical trials suggest that patients with high blood pressure (hypertension) keep better blood pressure control if treatment is 'aggressive' early on.

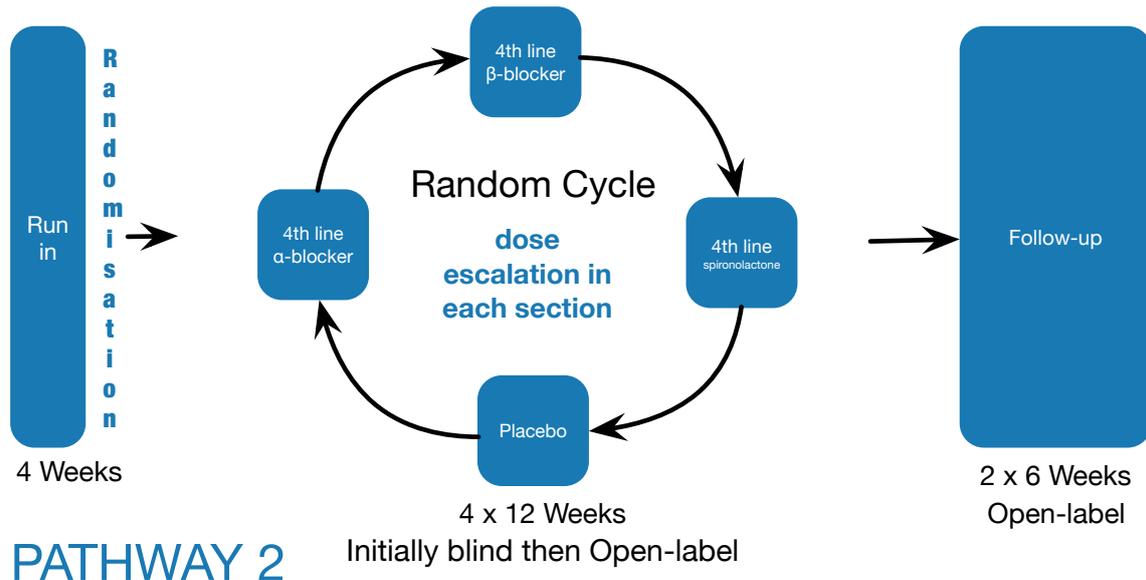
Patients treated less aggressively early on do not seem to catch-up later.

PATHWAY 1 is designed to show whether aggressive early treatment with two drugs (combination therapy) does indeed lead to better blood pressure control than starting treatment with just one drug.

The study should also show whether patients treated with just one drug early on do catch up at all over the course of a year and help scientists understand this, It will also determine the safety of, and patients' response to, initial aggressive treatment.

PATHWAY 2

Optimal treatment of drug resistant hypertension



If blood pressure is not controlled despite the maximum recommended treatment then current guidelines advise that this 'drug resistant hypertension' can be managed using a further water tablet (diuretic), an alpha-blocker, or a beta-blocker. It is not clear which of these '4th line' drugs is most likely to be effective.

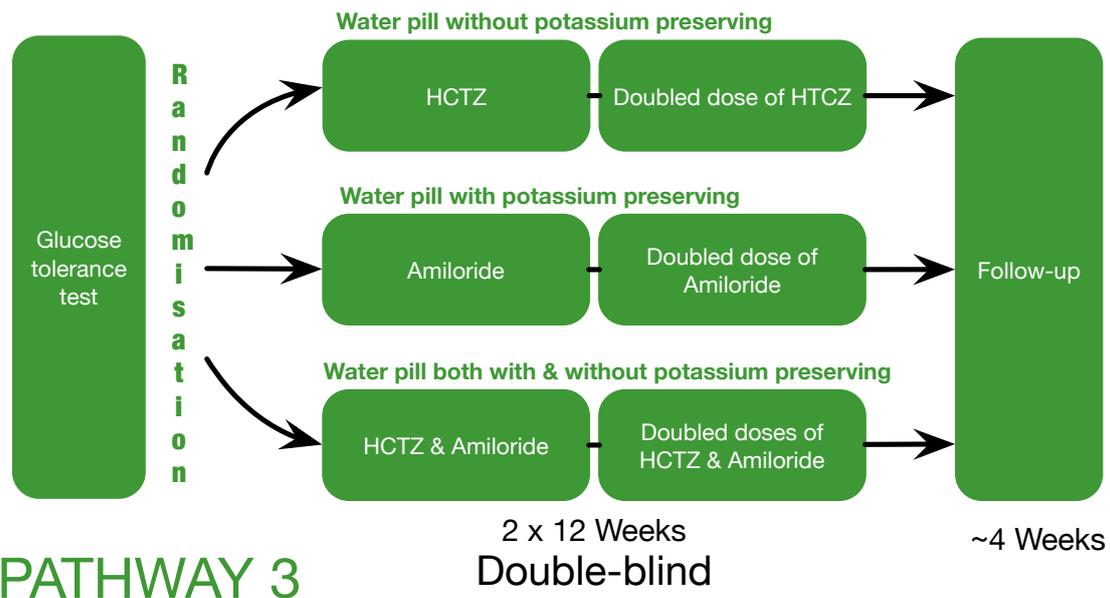
Possibilities are that

- It doesn't matter – on average they all work as well as one another;
- One drug will always be better because the causes are the same in all cases – one suggestion is that this might be a water tablet;
- The best drug will vary between patients – one suggestion is that testing a chemical in the blood which helps control blood pressure (the enzyme 'renin') might be a way of finding which is best.

PATHWAY 2 is designed to find out whether a further water tablet will generally be the best treatment and to see if 'plasma renin' measurements will predict the most effective 4th line drug for particular patients.

PATHWAY 3

Comparison of single and combination diuretics in low-renin hypertension



Water tablets (diuretics) such as HCTZ (Hydrochlorothiazide) are widely used to treat high blood pressure and it has been shown that they work well, But low potassium levels (hypokalaemia) and poor sugar control (glucose tolerance) are known complications.

It is suggested that the increase in blood sugar levels is caused by low potassium (K).

PATHWAY 3 is designed to find out whether a water pill that preserves potassium levels (Amiloride) leads to improved blood sugar levels and whether combining different pills is more efficient and better for patients.

Text adapted from summaries prepared by the Centre for Cardiovascular Science at Edinburgh University:
<http://cvrisk.mvm.ed.ac.uk/pathway.htm>