

Allopurinol and cardiovascular outcomes in patients with ischaemic heart disease: the ALL-HEART RCT and economic evaluation

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Members of the ALL-HEART study group are listed in [Appendix 1](#).

Disclosure of interests

Full disclosure of interests: Completed ICMJE forms for all authors, including all related interests, are available in the toolkit on the NIHR Journals Library report publication page at <https://doi.org/10.3310/ATTM4092>.

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Plain language summary

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Plain language summary

What was the question?

The purpose of the ALL-HEART study was to determine whether giving allopurinol to people with ischaemic heart disease (also commonly known as coronary heart disease) would reduce their risk of having a heart attack, stroke or of dying from cardiovascular disease. Allopurinol is a medication usually given to patients with gout to prevent acute gout flares. It is not currently used to treat ischaemic heart disease.

What did we do?

We randomly allocated people aged over 60 years with ischaemic heart disease to take up to 600 mg of allopurinol daily (in addition to their usual care) or to continue with their usual care. We then monitored participants for several years and recorded any major health events such as heart attacks, strokes and deaths. We obtained most of the follow-up data from centrally held electronic hospital admissions and death records, making the study easier for participants and more cost-efficient. We asked participants in both groups to complete questionnaires to assess their quality of life during the study. We also collected data to determine whether there was any economic benefit to the NHS of using allopurinol in patients with ischaemic heart disease.

What did we find?

There was no difference in the risk of heart attacks, strokes or death from cardiovascular disease between the participants given allopurinol and those in the group continuing their usual care. We also found no difference in the risks of other cardiovascular events, deaths from any cause or quality-of-life measurements between the allopurinol and usual care groups.

What does this mean?

The results of the ALL-HEART study suggest that we should not recommend that allopurinol be given to people with ischaemic heart disease to prevent further cardiovascular events or deaths.

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