

Statins reduce deaths from infection and respiratory illness, eight years on from trial

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The death rate among patients prescribed a statin in a major trial that ended in 2003 is still lower than those given a placebo, even though most participants in both groups have been taking statins ever since. ASCOT, the Anglo-Scandinavian Cardiac Outcomes Trial, was stopped early because the statin was so effective at preventing heart attacks and strokes, but a new analysis has shown that eight years on, the most significant difference between the groups is a reduction in deaths from infection and respiratory illness.

The latest findings, from researchers at Imperial College London, were presented at the [European Society of Cardiology](#) Congress in Paris today and simultaneously published in the [European Heart Journal](#).

In the lipid-lowering arm of the trial, over 10,000 patients in the UK, Ireland and Scandinavia with [high blood pressure](#) were randomly allocated either [atorvastatin](#) or placebo between 1998 and 2000. In 2003, the trial was stopped early because the [statin](#) proved to be highly beneficial in preventing heart attacks and strokes. Since then, most participants from both groups have been taking statins.

The new analysis looked at the number and cause of deaths among the 4,605 participants in the ASCOT trial who are based in the UK. After 11 years' follow-up, overall mortality is 14 per cent lower in the group originally assigned atorvastatin, due largely to fewer deaths from infection and respiratory illness.

"This result is very unexpected," said Professor Peter Sever, from the International Centre for Circulatory Health at Imperial College London, who led the study. "The benefits of statins for preventing heart attacks and strokes are well-established, but after long-term follow-up the most significant effects seem to be on deaths from other causes. It's quite remarkable that there is still this difference between the two groups, eight years after the trial finished.

"Some studies have suggested that statins protect people against death from infectious diseases such as pneumonia. More research is needed to explain how these drugs might have unforeseen actions that prevent deaths from other illnesses."

Amongst UK participants, in the 11 years since the trial began, 460 of the original statin group have died, compared with 520 of the placebo group. The difference is largely explained by a 36 per cent reduction in deaths from infection and respiratory illness. Deaths from cardiovascular disease were also lower in the original statin group, but the difference was not statistically significant. There was no difference in deaths from cancer.

The initial results of the ASCOT lipid arm had a major influence on subsequent guidelines recommending the use of statins for people at risk of heart disease, including those produced by NICE in the UK. Another arm of the trial comparing different combinations of blood pressure-lowering drugs also had an important impact on clinical practice.

More information: P.S. Sever et al. 'The Anglo-Scandinavian Cardiac Outcomes Trial: 11 year mortality follow-up of the lipid-lowering arm in the UK.' *European Heart Journal*, August 28 2011.

Provided by Imperial College London

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