The pros and cons of statins

The great debate rumbles on. On the one hand, there are the passionate advocates, who believe statins should be, if not quite added to the tap water, certainly given to more than the seven million people in the UK who take them today. Squaring up on the other side of the ring are those who believe they do more harm than good. Somewhere in the middle are patients, who would be forgiven for not knowing who to believe.

Are statins a good thing?

As with so many other scare stories, there is a grey area in the middle - and more agreement among the experts than the headlines would suggest. To sort the fact from the fiction we need to rewind a few years.

In 2005, almost every newspaper's front page covered the findings of a meta-analysis (a study combining lots of smaller related studies) involving over 90,000 people taking statins. It showed that for every 1 mmol/L that 'bad' LDL cholesterol was lowered using statins, the risk of heart attack, related surgery or stroke was reduced by 21% and the risk of dying by 12%. The case for statins in people at very high risk of heart attack or stroke - for instance, people who have already had a heart attack or stroke or most people with type 2 diabetes - was already proven. Nobody has ever suggested doctors should stop recommending statin treatment to these patients.

In 2012, the same study group went one stage further, suggesting that a similar-sized benefit applied to people who were at relatively low risk of heart attack and stroke (usually taken as a 10-year risk under 20%). They suggested that existing guidelines that excluded these patients from being offered statins should be looked at again, with a view to expanding the role of statin treatment. In 2014, the National Institute for Health and Care Excellence (NICE) did just that.

In 2013, an academic from Harvard revisited the findings from the meta-analysis and came up with different conclusions. His interpretation was that statins did not save lives in people at low risk of heart disease, and the side-effects of statins had been underestimated. He claimed that 18-20% of people taking statins had side-effects from them, some of them severe.

The response from Professor Rory Collins from Oxford University, one of the UK's top researchers into statins, was swift and damning. He claimed that the scare story was probably killing more people than had been harmed by the scandal which followed the publication of the (now discredited) story on MMR and autism.

The heat stepped up again in March 2014. Another study looked not just at how many people developed side-effects when they were taking statins, but how those figures compared to people who were taking placebo (non-active) in the same trials. It turned out that the number of people experiencing side-effects in the statin arm of the studies was basically identical to the number of side-effects seen with placebo. That doesn't mean people don't get side-effects on statins - it means they get them if they think they're taking a statin, whether they are or not.

The side-effects of statins

Dr Ben Goldacre, one of the authors of the study, talked about the 'nocebo' effect - if you think you might get a side-effect, you're more likely to. He commented that 'if you want to see the nocebo effect in action, when sitting on a sofa with friends, suddenly ask: "Does this thing have fleas in it?"'.

The only side-effect which was significantly more common in people taking statins was developing type 2 diabetes, although they estimate that 80% of the people on statins who developed type 2 diabetes would have been diagnosed with it anyway.

In 2014 two authors of the British Medical Journal (BMJ) issued a public retraction of their claims about how common side-effects on statins are, because they have admitted the calculations in their paper were wrong. The editor of the BMJ announced that the BMJ wants to '...alert readers, the media, and the public to the withdrawal of these statements so that patients who could benefit from statins are not wrongly deterred from starting or continuing treatment because of exaggerated concerns over side-effects.'

In 2017, the nocebo effect was in the news again. This time, it was a study where for the first half, half the patients were taking a placebo, the other half were taking a statin, and neither knew which they were on. The number of muscle side-effects was identical in both groups. For the second half of the study, both groups were offered the statins and knew they were taking them. Suddenly the number of people complaining of muscle pain in the treatment arm was much higher than those not taking tablets.

Should you keep taking statins?

But what does that mean to patients? If you've had a heart attack or stroke, have type 2 diabetes or have been told by your doctor you're at very high risk of heart attack or stroke, the answer is categorically yes. All the players in this complicated academic debate agree on that.

If you're at moderate risk, are taking a statin and not having side-effects, you're almost certainly doing yourself more good than harm. If you think you are having side-effects, speak to your GP. You might also want to ask yourself if there are changes you could make to your lifestyle that would cut your risk enough to take you out of a high-risk category. All tablets (whether placebo or not) carry side-effects for some people - doing more exercise, losing that bit of extra weight or stopping smoking certainly don't.

Should everyone over 50 take a statin?

Research released by Oxford University in 2012 suggest everyone over the age of 50 should be put on a statin automatically. I don't think this is the best way to deal with the problem of raised cholesterol. That's not because I don't believe in statins - they are extremely effective at lowering cholesterol, and therefore cutting your risk of heart attack and stroke.

However, all medicines carry risks as well as benefits, and as a doctor I weigh up these risks and benefits every time I prescribe a medicine. If you're otherwise healthy and not on other medicines, there's a good chance that you won't have any side-effects, but up to one in 10 people taking statins have minor side-effects and a far smaller number have severe ones.

If you don't have any other risk factors for heart attack or stroke except being over 50, you won't get nearly as much benefit from a statin as someone at high risk but you're just as likely to have side-effects. That means the risk-to-benefit ratio is far less strongly weighed on the benefit side.

The study suggesting this strategy argues that a 'blanket' policy would be easier and cheaper, and possibly more effective, than the present policy of screening everyone over 40. The point about screening is that if you find someone is at high risk, it gives you the opportunity to give them advice about healthy lifestyle changes to lower their cholesterol. A 'fire and forget' policy for everyone doesn't.

I would much rather see everyone over the age of 40 having a full assessment of all their risks, including cholesterol, blood pressure, smoking, gender and weight. National guidelines suggest we should be considering statin treatment for anyone with a 10-year risk of heart attack or stroke that's higher than 20%. I have 35-year-olds with a higher risk than this, because they smoke and are obese; and 60-year-olds whose 10-year risk is half this. That's why I don't believe a 'one-size-fits-all' approach is the best way forward.

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