Optimising statin dose. Can we do even better?

J Robson April 2016

Statin have an unjustifiably bad press from some media. After 30 years of intense scrutiny it is very clear that they very rarely cause severe adverse events and that more minor side effects are in fact also unusual. The text below is from JAMA: Waters DD et al. 2016;315:1571-2.

"Considerable evidence suggests that non-pharmacologic mechanisms account for most muscle-related statin intolerance. The prevalence of statin-associated muscle symptoms ranges from 7% to 29% in registries and observational studies.[1]

The incidence of muscle symptoms is similar among statin-treated and placebo-treated patients across 26 long-term trials involving 170000 patients.[2]

In a large retrospective cohort study, 6579 of 11 124 patients who discontinued a statin due to adverse effects were rechallenged, ***with 92% success in restoring therapy****, although not necessarily with the same statin or dose.*[3]

In an international survey, the incidence of intolerable statin- related adverse effects ranged from 2% in Japan, Spain, Italy, and Sweden to 10% to 12% in Canada, the United Kingdom, and the United States.[4] ***These substantial differences are likely to be modulated by cultural factors and patient perception.****"*

Most people who have symptoms with statins can in fact take a statin albeit at lower dose or of a different type. Patients newly starting statins who do not tolerate a high dose should be tried on a lower dose (atorvastatin 10mg) and titrated up. Those who are still intolerant should try pravastatin 10mg and again titrate up. Any statin is better than no statin in people at increased CVD risk.

However, the bigger issue with statins is the failure to use the optimal dose:

East London has some of the highest use of statins in the UK and the best performance, but even here we are not treating patients at highest risk of CVD with optimal statin treatment.

- Only 15% of people under 75 years with established CHD, stroke or diabetes are on atorvastatin 80mg
- Over age 75 years only 30% are on either atorvastatin 40mg or 80mg.

There is a further reduction in CVD events of 16% by using high intensity statins such as atorvastatin 80mg or 40mg in comparison to a moderate statin such as simvastatin 40mg.

Now that atorvastatin is off patent, atorvastatin is the statin of first choice.

- In primary prevention and T2 Diabetes at younger ages, atorvastatin 20mg is recommended.
- In people under 75 years with established CHD, stroke or T2 diabetes over age 50 years atorvastatin 80mg is recommended.
  Atorvastatin 40mg dose is an alternative option over the age of 75 years.

1. Stroes ES, Thompson PD, Corsini A, et al; European Atherosclerosis Society Consensus Panel. Statin-associated muscle symptoms: impact on statin therapy—*Eur Heart J*. 2015;36 (17):1012-1022.
2. Baigent C, Blackwell L, Emberson J, et al; Efficacy and safety of more intensive lowering of LDL cholesterol: ameta-analysis of data from 170,000 participants in 26 randomised trials. *Lancet*. 2010;376(9753):1670-1681.
3. Zhang H, Plutzky J, Skentzos S, et al. Discontinuation of statins in routine care settings: a cohort study. *Ann Intern Med*. 2013;158(7):526-534.
4. Hovingh GK, Gandra SR, McKendrick J, et al. Identification and management of patients with statin-associated symptoms in clinical practice: *Atherosclerosis*. 2016;245:111-117.