

REPLY: Underutilization of High-Intensity Statin Therapy After Hospitalization for Coronary Heart Disease



A Cause for Concern, But a Few Words of Caution

The 2013 American Heart Association/American College of Cardiology (ACC/AHA) Guidelines on the treatment of blood cholesterol to reduce atherosclerotic cardiovascular risk in adults (1) represent a paradigm shift in the approach to utilization of statin therapy for individuals with established atherosclerotic cardiovascular disease (CVD) who are at substantially higher risk for recurrent events particularly after an acute coronary syndrome (ACS). In response to our recent publication, Drs. Nguyen and Biron question the validity of the evidence used to generate the ACC/AHA guideline. They cite 2 post-ACS trials that reported small reductions in the cardiovascular and mortality endpoints (2,3). Additionally, they note recent reports as well as anecdotes from their own institution of possible adverse events associated with high-intensity statin use. We would like to clarify some of the points they raise and provide justification as to why we believe high-intensity statins are currently underutilized following ACS events. Given the limited duration of follow-up, the absolute benefit of high-intensity statins in randomized trials has been small. However, extrapolating data from the PROVE IT-TIMI 22 (Pravastatin or Atorvastatin Evaluation and Infection Therapy-Thrombolysis In Myocardial Infarction 22) trial to 10 years would demonstrate a substantially larger (6.8) absolute risk reduction in the pooled outcome of death/nonfatal MI. Additionally, Drs. Nguyen and Biron cite observational data and anecdotes on the safety of high-intensity statin therapy. These data need to be placed into an appropriate context. For example, the CVD risk reduction benefits of statins have been shown to outweigh the risk for new-onset diabetes. Also, the increased risk for acute kidney injury with high-intensity statins is unclear and we believe requires further study.

In our analysis of Medicare participants hospitalized for a CHD event, 27% were treated with high-intensity statin. In order to minimize inappropriate use of high-intensity statin therapy, we excluded participants' ≥ 75 years of age and those with end-stage renal disease (4). Additionally, we reported the use of high-intensity statins in multiple subgroups. In every subgroup, including participants without comorbidities, the use of high-intensity statins was $< 30\%$. We acknowledge that Medicare

claims data did not have information on prior statin intolerance or adverse events and appropriate reasons for providers to not prescribe high-intensity statins. Nonetheless, it is our opinion that the evidence used to justify ACC/AHA guidelines are strong that most patients should be discharged on high-intensity statins after an ACS event. Clearly there will be patients for whom high-potency statins are not appropriate. However, it is unreasonable that we should accept only 1 in 4 patients being discharged on high-intensity statins after an ACS event represents optimal medical management.

Future studies are needed to identify the barriers to broader use of high-potency statins among patients with established CHD events. Additionally, physician misperception on the risks and benefits associated with high-intensity statins evidently also need to be addressed. Given the risk reduction benefits demonstrated in randomized controlled trials, increasing the appropriate use of high-intensity statins for the proper patients should be a high priority for cardiologists and other healthcare providers.

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