

IMPROVE-IT Trial: A Comparison of Ezetimibe/Simvastatin versus Simvastatin Monotherapy on Cardiovascular Outcomes After Acute Coronary Syndromes

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Background: LDL-C reduction with statin therapy has been shown to improve cardiovascular outcomes in patients with coronary artery disease, whether initiated during the chronic, stable phase or at the time of acute coronary syndromes (ACS). Whether the addition of ezetimibe to statin therapy can reduce cardiovascular events further has not been demonstrated. IMPROVE-IT (IMProved Reduction of Outcomes: Vytorin Efficacy International Trial; NCT00202878) is a multicenter, randomized, double blind trial designed to test the hypothesis that the addition of ezetimibe to a statin improves cardiovascular outcomes relative to statin monotherapy in patients after ACS.

Study design: From October 26, 2005 to July 8, 2010, 18,144 moderate-high risk patients stabilized following ACS with LDL-C levels <125 mg/dL (statin naïve) or and 79 mg/dL, the S dose was increased to 80 mg in a double-blind fashion in both treatment groups. The primary endpoint was first occurrence of cardiovascular death, nonfatal myocardial infarction, rehospitalization for unstable angina, coronary revascularization (=30 days following randomization) or stroke, as adjudicated by a blinded clinical events committee. Patients were followed for = 2.5 years and until = 5250 patients experienced a primary endpoint. Average follow up is approximately 5.68 years. Final visits are planned to be completed by July 2014, with database lock by October 2014.

Conclusion: IMPROVE-IT will determine if the addition of ezetimibe to statin therapy improves cardiovascular outcomes, and as such, whether further LDL-C lowering with a non-statin drug can lead to clinical benefit. In addition, with median achieved LDL-C levels anticipated to be <70 mg/dl for S vs <55 mg/dl for ES, the trial will provide data on whether more intensive LDL-C reduction in this low range yields incremental clinical benefit, and if lowering LDL-C to such levels should be considered.

Disclosures:

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