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Pitavastatin Effects on Lipids in Relation to Major Adverse Cardiovascular Events: a REPRIEVE Secondary Analysis

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Background

REPRIEVE demonstrated a 36% reduction in cardiovascular disease events like heart attack and stroke with pitavastatin among people with HIV (PWH). However, little is known about the relationship between lowering lipids, or fats like LDL, with the reduction of heart attack and stroke in this population.

Goals of the Study

We aimed to evaluate the effect of pitavastatin on lipid levels in REPRIEVE participants, and to determine how much the lipid-lowering may contribute to reducing the risk of heart disease events.

REPRIEVE enrolled PWH between ages 40-75 with low-to-moderate traditional heart disease risk, randomized these participants to a cholesterol-lowering medication called pitavastatin or to placebo (a pill that contains no medication). Participants were followed for, on average 5 years, for heart disease events like a heart attack or stroke. Main findings from REPRIEVE were that [statin therapy reduced heart disease events among PWH by 36%](#), prompting guideline changes recommending statin use in PWH.

➤ The participants:

- 7769 REPRIEVE Participants
 - Low-to-moderate traditional heart disease risk
 - Median age: 50 years
 - Median PCE (a calculation to determine risk of cardiovascular disease risk): 4.5%
 - Median LDL-C levels at screening: 108 mg/dL

The Findings:

- Pitavastatin effects on lipids were primarily observed on LDL-C, among other lipids including triglycerides, HDL-C, and total cholesterol
 - There was a modest reduction in triglycerides, and no effect on HDL-C
- At 12 months into the study, the difference in LDL-C levels between participants taking pitavastatin and placebo was -30 mg/dL
- A 30% lower average LDL-C was associated with 20% lower risk of heart disease or stroke.
- Of the pitavastatin effect on reducing risk of heart disease events, 68% of the effect was estimated to be the result of the LDL-C lowering from pitavastatin

In Summary: LDL-C is strongly related to the risk of heart attack and stroke, and lowering LDL-C should be an important goal for heart disease prevention in PWH, even among those with lower LDL-C to begin with.

REPRIEVE Trial Website: reprivetrial.org

The findings shared in this summary are from the REPRIEVE population at a specific point in time. These findings are descriptive and not intended to change clinical care. If you have questions about what you've read, please talk to members of the REPRIEVE study team at your local site or a health care provider