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Frailty, Pitavastatin, and Major Adverse Cardiovascular Events Among People with HIV

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Background

People with HIV (PWH) are at an increased risk for cardiovascular disease and accelerating aging, including frailty. While REPRIEVE demonstrated a 36% reduction in cardiovascular disease events like heart attack or stroke with pitavastatin in PWH, the role of statins for cardiovascular disease risk prevention among PWH with frailty is unknown.

Goals of the Study

Our goal was to evaluate whether frailty is linked to cardiovascular disease events among PWH, and whether pitavastatin, a cholesterol lowering medication, prevents these events across different severities of physical frailty.

REPRIEVE enrolled people with HIV (PWH) between ages 40-75 with low-to-moderate traditional heart disease risk, randomized these participants to a statin medication called pitavastatin or to placebo (a pill that contains no medication), and followed these participants for, on average, 5 years, to see if they developed 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 aged ≥ 40 years.

➤ The participants:

- 7740 participants enrolled in REPRIEVE, with data to calculate frailty index
 - 3876 participants taking pitavastatin, 3864 taking placebo
 - Median age at enrollment: 50 years
 - Median follow-up time: 5.6 years
 - 69% male, 31% female

The Findings:

- 67% of patients were non-frail, 29% pre-frail, and 4% frail at entry into the study
- The risk of cardiovascular disease events was significantly increased for frail and pre-frail patients, compared to non-frail patients
- Frailty did not impact the protective effects of pitavastatin decreasing the risk of cardiovascular disease events in PWH, as seen in the main trial results

In Summary: Frailty was associated with significantly higher risk of cardiovascular disease events, and incorporating frailty assessments into the routine care of people with HIV can help identify those who may be at higher risk of developing future cardiovascular disease events.

REPRIEVE Trial Website: reprievetrial.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