AMERICAN COLLEGE of CARDIOLOGY®

# Inflammation and Cholesterol as CV Event Predictors Among Patients Receiving Statin Therapy

## Collaborative Analysis of Three Multicenter, International, Randomized Trials (PROMINENT, REDUCE-IT, STRENGTH)

**OBJECTIVE:** To assess the relative contributions of inflammation and baseline LDL-C to atherosclerotic cardiovascular disease (ASCVD) risk in patients receiving statin therapy.

**31,245**
**PATIENTS**

**INCLUSION CRITERIA:**
- Primary or secondary ASCVD prevention patients
- Baseline high-sensitivity C-reactive protein (hsCRP) and LDL-C available

**QUARTILES OF INCREASING BASELINE hsCRP**

**vs.**

**QUARTILES OF INCREASING BASELINE LDL-C**

## PRIMARY ENDPOINT

**MAJOR ADVERSE CV EVENTS, HIGHEST vs. LOWEST QUARTILE OF BASELINE**
**hsCRP: 15.0%** vs. **12.6% (P<0.0001)**
**MAJOR ADVERSE CV EVENTS, HIGHEST vs. LOWEST QUARTILE OF BASELINE**
**LDL-C: 13.0%** vs. **13.6% (P=0.11)**

## SECONDARY ENDPOINTS

**CV DEATH, HIGHEST** vs. **LOWEST QUARTILE OF BASELINE**
**hsCRP: 5.4%** vs. **2.1% (P<0.0001)**

**CV DEATH, HIGHEST** vs. **LOWEST QUARTILE OF BASELINE**
**LDL-C: 3.8%** vs. **3.5% (P=0.0086)**

**ALL-CAUSE DEATH, HIGHEST** vs. **LOWEST QUARTILE OF BASELINE**
**hsCRP: 9.8%** vs. **4.4% (P<0.0001)**

**ALL-CAUSE DEATH, HIGHEST** vs. **LOWEST QUARTILE OF BASELINE**
**LDL-C: 6.6%** vs. **6.7% (P=0.025)**

## CONCLUSION

Among patients with or at high risk for ASCVD receiving statins, inflammation, measured by hsCRP, had a greater effect on CV risk and mortality than baseline LDL-C.

Ridker PM, Bhatt DL, Pradhan AD, et al. Inflammation and Cholesterol as Predictors of Cardiovascular Events Among Patients Receiving Statin Therapy: A Collaborative Analysis of Three Randomised Trials. *Lancet* 2023;Mar 6:[Epub ahead of print].

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