**EVALUATION OF GENETIC PROFILES IN MEDICATION ADJUSTMENTS**

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*Background*: A series of sequential high risk cardiovascular patients were followed who had noninvasive genetic testing performed using cheek swab technology. Over the next 90 days, it was ascertained what medication changes were made based on these tests. *Methods*: 32 sequential patients were identified with high risk underlying cardiovascular features including prior coronary artery disease with or without previous revascularization. They underwent cheek swab genetic testing by an organization named G6 Genomics with standardized genetic testing including CYP2C19, CYP2C9, CYP2D6, CYP3A4, CYP3A5, Factor II, Factor V Leiden, MTHFR, SLCO1B1, VKORC1. Chart review was performed at 90 days on each patient to identify what independent changes were made by their clinicians in response to genomic reports produced.

*Results*: Of the 32 tested patients, 10 patients representing 30% of the population had ultimate changes in their medication regimens. 3 patients had changes in their lipid-specific medications, 2 patients in anti-platelet, 2 patients in anti-coagulation, 2 patients in anti-hypertensive therapy, and 1 patients in their psychoactive medications. Subsequent review at 6 months showed no patients had significant intolerance or adverse reactions as a result of these drug changes.

*Conclusions*: Genomic testing can help identify up to 25% of patients who may benefit from subsequent medication changes.