Plavix Resistance (CYP2C19)

What patients may benefit from CYP2C19 PLAVIX RESISTANCE testing?

Those individuals either considering or currently taking Clopidogrel.

How are the test results interpreted?

Normal-Matabolizer:

***1**

Poor-Matabolizers:

***2, *3, *4, *5, *6, *7 and *8**

Ultra-Matabolizer:

***17**

How is the specimen collected?

Specimen should be collected in two Lavender blood tubes.

How long do test results take?

Genotyping results typically take 7 business days.

CYP2C19 assay assess how DNA makeup may affect metabolization of Clopidogrel (Plavix):

- Poor-metabolizer; increased risk of stroke, stent thrombosis, MI & or death.
- Ultra-matabolizer; increased risk of bleeding.
- Normal-metabolizer; Clopidogrel (Plavix) expected to function as intended.

Physicians may consider test results when formulating a tailored plan of care with Clopidogrel or consider the use of an alternative drug such as Prasugral (Effinet).

Med Health Services Laboratory is pleased to introduce PLAVIX RESISTANCE (CYP2C19) testing. Listed under the chemistry section of the Order Requisition, PLAVIX RESISTANCE (CYP2C19) is used to predict how well Clopidogrel (Plavix) will inhibit platelet formation based on a patient's gene composition.

Clopidogrel is a prodrug which is metabolized to its active component by several cytochrome P450 proteins of which CYP2C19 plays a key role. Variation in the CYP2C19 gene can result in variable metabolizer phenotypes. Among clopidogrel treated patients, one or more loss-of-function alleles (*2, *3, *4, *5, *6, *7, and *8) are associated with reduced platelet inhibition and an increased risk of cardiovascular complications, such as myocardial infarction, stroke, stent thrombosis, and/or death, as compared with homozygous wild type (*1/*1) gene carriers (HR 1.53-4.04).[1-3] Individuals who are carriers of the *17 allele are ultrametabolizers (UM) and have an enhanced response to clopidogrel. Ultrametabolizers are at increased risk of bleeding.[4]

Due to recent FDA recommendations, physicians are increasingly utilizing PLAVIX RESISTANCE (CYP2C19) TESTING to help determine the most appropriate plan of care by categorizing each patient as a normal metabolizer, poor metabolizer or ultrametabolizer.

Please contact the lab with questions and or other test information.

MED HEALTH SERVICES