**CYP2D6 Comprehensive Cascade Testing Algorithm***

Order **2D6Q / CYP2D6 Gene Sequencing**
Includes copy number variation (CNV)∗

Result requires follow-up. Additional testing may be performed∗

Based on the results of initial testing, one or more of the following tier 2 testing options will be added.†

- **CYP2D6 Full Gene Sequence**
- **CYP2D6 GEN CYP2D6-2D7 Hybrid**
- **CYP2D6 GEN CYP2D7-2D6 Hybrid**
- **CYP2D6 Nonduplicated Gene**
- **CYP2D6 5′ Gene Duplication/Multiplication**
- **CYP2D6 3′ Gene Duplication/Multiplication**

Genotype determined

STOP
Comprehensive interpretive report provided

Genotype determined

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* Additional testing is performed to derive as accurate a phenotype as possible.
† Always performed
‡ Additional testing may be performed (only approximately 3% of individuals may need additional testing) for the following reasons:
1. No call on an assay for a single nucleotide variant
2. Genotype pattern does not fit known star allele
3. Duplication involving alleles with different levels of activity
4. Genotype/phenotype discord
5. Laboratory director request (CYP2D6 real time PCR and CNV assays must be completed first)
6. Ambiguous genotype leading to ambiguous phenotype.

† Tier 2 testing performed on blood specimens only: The number of sequencing tests needed to determine the phenotype will vary depending on the tier 1 result. Due to lower concentration of DNA yielded from saliva, testing cannot proceed to tier 2 sequencing and will stop after tier 1 testing is complete.