

DNA-Guided Coumadin[®] Management with the *HILOmet* Warfarin System

FDA revised the Coumadin[®] (Warfarin) label in August, 2007 including DNA variants to personalize initial dose and subsequent management.

Coumadin[®] management presents a clinical conundrum. There is a broad range of Coumadin[®] maintenance doses within the population with patients requiring from 1 mg/day to 10 mg/day to obtain therapeutic anticoagulation. Despite early dose titration and subsequent periodic monitoring by Prothrombin Time (PT) and International Normalized Ratio (INR), hemorrhagic complications are frequent and can be fatal. The *HILOmet* WARFARIN system is revolutionary for clinical practice. By means of DNA Typing, the innate Coumadin[®] metabolic capacity and sensitivity of the patient can be predicted and diagnosed simply from a blood sample.

DNA-Guided Coumadin[®] Dose

Coumadin[®] exerts its anticoagulant effect through its inhibition of Vitamin K Epoxide Reductase (VKOR). VKOR reduces oxidized Vitamin K, which is necessary for activation of Clotting Factors II, VII, IX and X. Coumadin[®] is metabolized to inactive metabolites by the hepatic cytochrome P450 CYP2C9 isoenzyme.

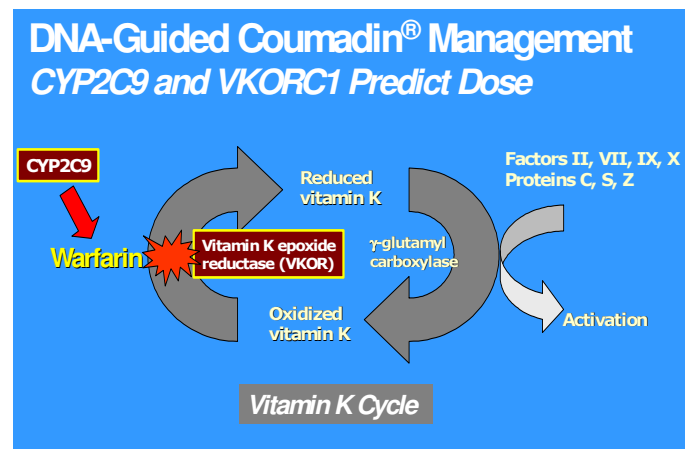
VKOR and CYP2C9 are coded by independently segregating genes. Their individual contributions when added yield at least ~50% prediction of Coumadin[®] variability by DNA Typing. DNA thus adds significant predictive power to Coumadin[®] therapeutic algorithms. The combined predictive power of clinical factors and DNA is ~70%.

Technical Information

The *HILOmet* WARFARIN System determines an individual's Coumadin[®] metabolic capacity and sensitivity by DNA Typing simultaneously the CYP2C9 and VKORC1 genes, at 12 variable sites. The report to the physician includes DNA Typing results and derived dosage guidelines.

Ordering the DNA Test for Coumadin[®]

Order forms are available at www.genomas.net/LPH. The *HILOmet* WARFARIN System is available through Clinical Laboratory Partners (CLP), test code 70004. A listing of CLP Patient Service Centers can be found at www.clpct.com or 800-286-9800.



LABORATORY OF PERSONALIZED HEALTH



Division of Genomas, Inc.

HILOmet DNA Typing is performed at the Genomas Laboratory of Personalized Health (LPH), located at Hartford Hospital. CT Dept. of Public Health license # CL-0644. Centers for Medicare and Medicaid Services certification # 07D1036625.

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