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PHARMACOGENOMIC TESTING AT AMPATH: RECENT UPDATES AND IMPROVEMENTS

INTRODUCTION

Pre-emptive pharmacogenomic (PGx) testing has now been proven to reduce adverse drug reactions, resulting in better patient compliance and improved clinical outcomes. The **PHARMA** test performed at Ampath Laboratories allows for the detection of ~120 actionable variants in 36 pharmacogenes that are known to influence the metabolism of numerous commonly prescribed medications. Our PGx reports have been updated and improved with several additional features, which include free access to clinical decision support for clinicians and PGx counselling services for patients.

Our newly updated PHARMA reports now include:

- A comprehensive PDF report with drug metaboliser phenotypes and clinical interpretations, individualised to each patient's unique genotype.
- More stringent evidence criteria applied to ensure clinical actionability of all findings reported on. Disease risk alleles are no longer included in our reports.
- Subscription-free clinician access to the online GenXys™ Precision Prescribing tools ReviewGx™ and TreatGx™, developed by and for medical professionals (see below).
- Pharmacogenomic counselling services are now offered to patients and doctors requiring additional assistance.

The benefits of using the GenXys™ Precision Prescribing software include:

- Generate a clinical PGx report for each patient incorporating their genetic data (sent through electronically from Ampath), as well as relevant clinical information such as current medications, allergies, liver function, renal function, comorbid conditions, etc.
- GenXys™ clinical reports provide real-time, evidence-based recommendations for first-line or alternate medications and dosage adjustments based on the patient and clinical information imported.
- Potentially serious drug-drug and drug-gene interactions are highlighted for each patient and each medication they are taking.
- These tools can also identify patients who are likely to benefit from PGx testing based on their current medication or medical history.

ADDITIONAL INFORMATION ON THE PHARMA PANEL

Test indication	To direct drug selection, personalise dosing and/or prevent adverse drug reactions
Genes targeted*	*ABCB1, ABCG2, ADRA2A, ADRB2, ANKK1, APOE, C11orf65, COMT, CYP1A2, CYP2B6, CYP2C, CYP2C8, CYP2C9, CYP2C19, CYP2D6, CYP3A4, CYP3A5, CYP4F2, DPYD, DRD2, EPHX1, F2, F5, GRIK4, HTR1A, HTR2A, HTR2C, ITGB3, MTHFR, NUDT15, OPRM1, SLC6A2, SLCO1B1, TPMT, UGT2B15, VKORC1*
Sample type	Buccal swab or peripheral blood sample (EDTA)
Mnemonic	**PHARMA**
Standard price (2024)	R2 800.00
Turnaround time	10 working days from sample being received at the NRL Genetics Laboratory
Pharmacogenomic counselling	Appointments can be scheduled at geneticsclinic@ampath.co.za and are charged separately

* Alleles/SNPs targeted available on request

For more information on PGx testing, please refer to AmpathChat no. 84 available on the Ampath website, or email pgx@ampath.co.za.