my Pharma by Veritas

Advanced pharmacogenomic test based on clinical guidelines.

It has been estimated that genetics may account for 20–95% of variability in drug disposition and effects in the organism[1]

Genetic variants in certain genes may impact the persons' ability to metabolize specific drugs, increasing or decreasing the efficacy or exposing the patient to adverse events.

What is myPharma?

It is a pharmacogenomic test based on international clinical guidelines to adapt the patient drug prescription based on the genetic makeup. It is clinically useful for many medical areas.

What does the test include?

Comprehensive report including the analysis of specific variants in 25 genes related to the metabolism, efficacy or toxicity of 129 active ingredients. The report includes brief recommendations based on clinical guidelines.

Who is it for?

myPharma is for everyone. The genetic analysis is performed once in a lifetime, and it is useful for both current and future drug prescription. It is particularly indicated for patients on multiple medications.

Why prescribe myPharma?

The test provides relevant information to adapt medical prescription in order to:

- Reduce or avoid adverse effects of medication.
- Select the most effective medication and dosage for each patient.
- Reduce time and resources finding the most appropriate medication for the patient.
- Provide a lifetime personalized drug prescription.

Based on most relevant guidelines

myPharma has been developed according to the most updated international pharmacogenomic guidelines such as CPIC* or DPWG**. Only genes and medications with high level of evidence are included in the report.

What is the sample type?

Saliva or blood sample in a kit provided by Veritas.

*CPIC: Clinical Pharmacogenetics Implementation Consortium

**DPWG: Dutch Pharmacogenetics Working Group

The percentage of hospital admissions due to adverse drug reactions is around 3.5%. [2]

Genes included on myPharma

myPharma is based on whole exome sequencing (WES) and the subsequent analysis of specific variants in the following genes:

ABCG2	*CYP3A5*	*HLA-DRB1*
ADRB2	*CYP4F2*	*IFNL3*
CACNA1S	*DPYD*	*MT-RNR1*
CYP2B6	*F2* | *F5*	*NAT2*
CYP2C19	*G6PD*	*NUDT15*
CYP2C9	*HLA-A*	*SLCO1B1*
CYP2D6	*HLA-B*	*TPMT*
CYP3A4	*HLA-DQA1*	*UGT1A1*

Average percentage of patients for whom a certain type of drug is ineffective

Antidepressants (SSRIs)

38%[3]

Oncology

75%[3]

1. Evans WE, McLeod HL. Pharmacogenomics — Drug Disposition, Drug Targets, and Side Effects. N Engl J Med. 2003;348(6):538-49.

2. Bouvy JC, De Bruin ML, Koopmanschap MA. Epidemiology of Adverse Drug Reactions in Europe: A Review of Recent Observational Studies. Drug Saf. 2015;38(5):437-53.

3. Spear BB, Heath-Chiozzi M, Huff J. Clinical application of pharmacogenetics. Trends Mol Med. 2001;7(5):201-4.

myPharma through life

Pain Medicine: Ibuprofen

Clinical manifestation: Moderate pain / fever
Drug prescription: Ibuprofen
Gene involved: *CYP2C9* *2/*6
Phenotype: Poor metabolizer

Poor metabolizer Risk of adverse events	Intermediate metabolizer	Normal metabolizer
Reduce dose	**Reduce dose / Label dosage ***	**Label dosage**

** The recommendations for intermediate metabolizers depend on the activity score.*

Psychiatry: Paroxetine

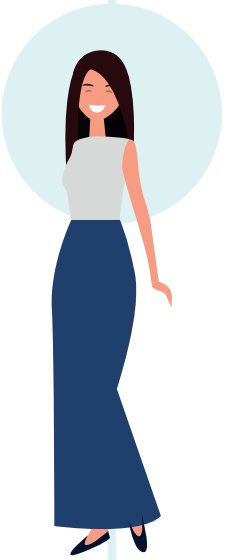
Clinical manifestation: Anxiety / Depression
Drug prescription: Paroxetine
Gene involved: *CYP2D6* *1/*1x2
Phenotype: Ultrarapid metabolizer

Poor metabolizer Risk of adverse events	Normal metabolizer	Ultrarapid metabolizer Risk of therapeutic failure
Reduce dose	**Label dosage**	**Alternative agent (e.g. Citalopram)**

Obstetrics / Gynecology: Estrogen Hormonal Contraceptives

Clinical manifestation: Birth control
Drug prescription: Estrogen hormonal contraceptives
Gene involved: *F5* (rs6025)
Phenotype: Increased risk of thrombosis

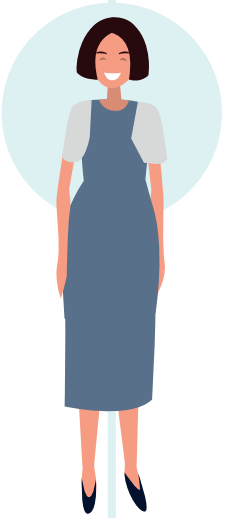
Standard risk of thrombosis	Moderate risk of thrombosis	High risk of thrombosis
Standard prescription	**Alternative agent**	**Alternative agent**



Oncology: Tamoxifen

Clinical manifestation: Breast cancer
Drug prescription: Tamoxifen
Gene involved: *CYP2D6* *1/*1x2
Phenotype: Ultrarapid metabolizer

Poor metabolizer Risk of therapeutic failure	Normal metabolizer	Ultrarapid metabolizer
Alternative agent	**Label dosage**	**Label dosage**



Endocrinology: Allopurinol

Clinical manifestation: Acute episode of gout
Drug prescription: Allopurinol
Gene involved: *HLA-B* *58:01
Phenotype: Drug hypersensitivity (Stevens-Johnson syndrome)

Absence of risk variant	Presence of risk variant
Standard prescription	**Alternative agent**

Cardiology: Simvastatin

Clinical manifestation: High LDL-cholesterol
Drug prescription: Simvastatin
Gene involved: *SLCO1B1* *1/*15
Phenotype: Reduced activity (Statin-Associated Myopathy)

Reduced activity Higher risk of myopathy	Normal activity	Increased activity
Alternative agent	**Label dosage**	**Label dosage**

Medical areas / Drugs

Cardiovascular

Atorvastatin, Clopidogrel, Flecainide, Fluvastatin, Hydralazine, Lovastatin, Metoprolol, Pitavastatin, Pravastatin, Propafenone, Rosuvastatin, Simvastatin

Endocrinology

Allopurinol, Eliglustat, Pegloticase, Toluidine blue

Gastroenterology

Dexlansoprazole, Lansoprazole, Metoclopramide, Omeprazole, Ondansetron, Pantoprazole, Tolterodine, Tropisetron

Hematology

Acenocoumarol, Clopidogrel, Methylene blue, Phenprocoumon, Warfarin

Infectious Diseases & Immune Disorders

Abacavir, Amikacin, Atazanavir, Azathioprine, Dapsone, Dibekacin, Efavirenz, Flucloxacillin, Gentamicin, Isoniazid, Kanamycin, Neomycin, Netilmicin, Nevirapine, Paromomycin, Peginterferon alfa-2a, Peginterferon alfa-2b, Plazomicin, Primaquine, Ribostamycin, Streptomycin, Sulfamethoxazole / Trimethoprim, Tafenoquine, Tobramycin, Voriconazole

Neurology

Amifampridine, Carbamazepine, Clobazam, Deutetrabenazine, Dextromethorphan / Quinidine, Fosphenytoin, Lamotrigine, Oxcarbazepine, Phenytoin, Pitolisant, Siponimod, Tetrabenazine, Valbenazine

Obstetrics / Gynecology

Estrogen hormonal contraceptives

Oncology

Capecitabine, Dabrafenib, Fluorouracil, Irinotecan, Lapatinib, Mercaptopurine, Rasburicase, Sacituzumab govitecan-hziy, Tamoxifen, Tegafur, Thioguanine

Ophthalmology

Methazolamide

Pain Medicine

Articaine, Celecoxib, Codeine, Desflurane, Dihydrocodeine, Enflurane, Flurbiprofen, Halothane, Hydrocodone, Ibuprofen, Isoflurane, Lornoxicam, Meloxicam, Methoxyflurane, Oliceridine, Oxycodone, Piroxicam, Sevoflurane, Succinylcholine, Tenoxicam, Tramadol

Psychiatry

Amitriptyline, Aripiprazole, Atomoxetine, Brexpiprazole, Citalopram, Clomipramine, Clozapine, Desipramine, Dextromethorphan hydrobromide / Bupropion hydrochloride, Doxepin, Escitalopram, Fluvoxamine, Haloperidol, Iloperidone, Imipramine, Methadone, Nortriptyline, Paroxetine, Pimozide, Quetiapine, Risperidone, Sertraline, Thioridazine, Trimipramine, Venlafaxine, Vortioxetine, Zuclopenthixol

Pulmonology

Salmeterol

Transplantation Medicine

Azathioprine, Tacrolimus

About Veritas

Veritas Genetics, *a LetsGetChecked company*, is a global leader in advanced genetic sequencing and the clinical interpretation of the whole exome and genome, driving the transition toward personalized and preventive medicine.

Leveraging state-of-the-art technology and the highest security standards, Veritas Genetics empowers individuals, healthcare professionals, and institutions worldwide to understand and anticipate genetic risks, enabling more informed and proactive health decisions.

Focused on innovation and accessibility, Veritas Genetics is transforming the way we understand and manage health throughout all stages of life.

Veritas technology allows the re-analysis of the genetic data to perform additional WES based tests or future pharmacogenomics updates under better conditions.

Veritas
a LetsGetChecked company

info@veritasint.com | veritasint.com

MB.MPGx_EN_V2.0
14/03/2025