eurofins | Clinical Genetics

Meds&Me

Frequently Asked Questions

Unique genetic insights to help get the right medicine, at the right dose, first time

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1.0 PGx GENERAL INFORMATION

1.1 What is pharmacogenomics?

All drugs can cause adverse side-effects to a greater or lesser degree but imagine if you had a test that could identify the likelihood of severe reactions or guide you to prescribe the most suitable drug & effective dose!

Pharmacogenetics, often referred to as PGx, is a new diagnostic tool that identifies the presence of genetic variants in patients, that impact drug response, efficacy and safety. PGx can become a powerful tool to help clinicians avoid the trial-and-error process and prescribe medications more safely and effectively.

The Eurofins Clinical Genetics PGx report is branded **Meds & Me.**

1.2 Are there exclusion criteria for PGx testing?

PGx testing may not be reliable in conditions where the analysed DNA does not reflect the patient's original germline genetics. Exclusion criteria include:

Recent blood transfusion, which may transiently affect blood-based genetic results.

Bone marrow or stem cell transplantation, as blood cells carry the donor's genome rather than the patients.

Liver transplantation, where drug metabolism is determined by the donor organ's genetics.

Kidney transplantation, which may influence drug handling and clinical relevance of PGx results.

In these situations, PGx results may be inaccurate or require cautious interpretation.

1.3 What are the benefits of a Meds & Me PGx test?

Improves therapeutic effectiveness of drugs - Faster treatment success

Potentially less medication over a shorter period of time

Avoidance of severe reaction to medications when taken for the first time

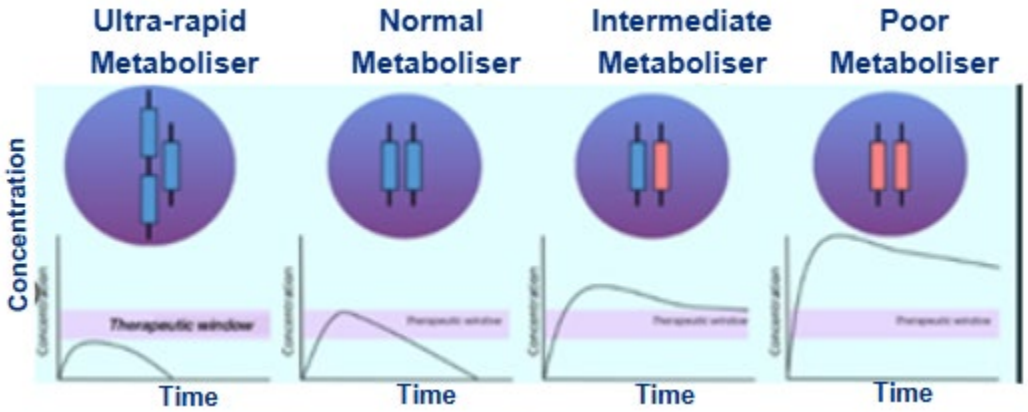
Improves patient adherence to prescribed drugs

1.4 How many genes do you test and how many medicines do you cover?

Currently (Feb 2026) we test for 27 genes that are supported with strong scientific evidence to enable the delivery of actionable clinical guidelines. We cover 119 pure list of drugs,140 Gene-drug pairs.

Please be aware that 119 medicines can be used for several indications. Therefore, if you display the medicines per indication - you will currently find 202 - as some have multi-use and are duplicates.

1.5 How does the test work?



Meds & Me PGx test identifies a patient's phenotype i.e. how they will react to medication subject to known genetic variants present in proteins such as liver enzymes that metabolise drugs, protein transporters that carry drugs and immune cells, that react to drugs. For example, a patient with a loss-of-function of the 2 alleles for enzyme CYP2C19 is called a 'Poor metaboliser'. A PGx test describes this patient as homozygous for the CYP2C19 and provides specific information, for example c.681 G>A variant, also known as *2/*2. This means that for the prodrug Clopidogrel, he was not able to metabolise it in the liver to its active antiplatelet metabolite. This left him at risk of a secondary cardiac event. He needed an alternative medication to thin his blood.

The 4 phenotypes are Ultra-Rapid Metaboliser – Normal Metaboliser – Intermediate Metaboliser – Poor Metaboliser.

1.6 How frequently do you update your evidence base and recommendations and how is this communicated to clients?

PGXperts maintain a structured and transparent update cycle to ensure that its evidence base and clinical recommendations remain current. Science - and database-driven updates are issued on a monthly basis, with off-cycle updates implemented promptly in the event of relevant guideline changes or critical new evidence.

All updates follow the PGXperts ISO 13485–accredited software development and change management process. Detailed release notes are produced for each update and made available to clients. In addition, clients are proactively informed by email of any changes to clinically relevant content, including (but not limited to) gene–drug pairs, medications, gene variants, recommendations, clinical implications, and software enhancements.

1.7 Which genotyping method is being used?

For PGx we utilise Illumina Excalibur arrays (GSAv4) enhanced for PGx; these provide the opportunity to choose off the shelf content of arrays or to either add on content or to fully customise the array. Total markers = 656,275. 41,767 variants for PGx. The Infinium Global Screening Array with Enhanced PGx-48 v4.0 includes ~8.3K quality control (QC) markers. QC markers on the array are selected to facilitate high throughput studies and enable sample tracking functions, including ancestry determination, and stratification. Product specification for call rate is >99%. reproducibility >99%. LogR <0.3 avg.

We are very flexible in removing and adding (once evidence is available) conditions/medications.

1.8 What is the process if a sample fails or yields an inconclusive result?

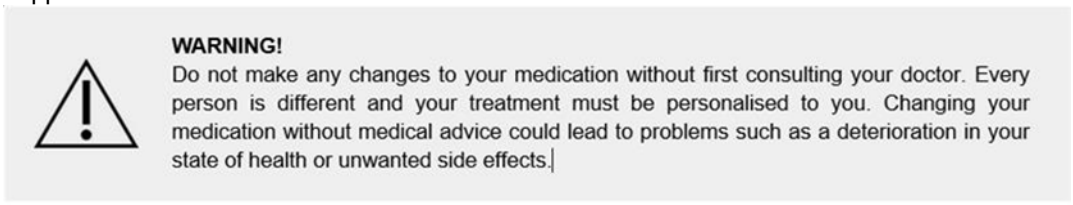
We will re-test the DNA, if it is available and if not, we will request a new blood sample.

1.9 Who receives the results first - the clinician or the patient?

Whoever orders the test gets the results first.

1.10 If patients receive results directly, how is the risk of misunderstanding or misinterpretation managed?

The report clearly warns the patient to share the report with their healthcare practitioner before acting on it. In addition, we will be running patient webinars. Patients will be empowered to manage their own health and the webinars will be part of an effort to provide them with the necessary knowledge and supports to do so.



1.11 Is genetic counselling included as part of the service, or available if required?

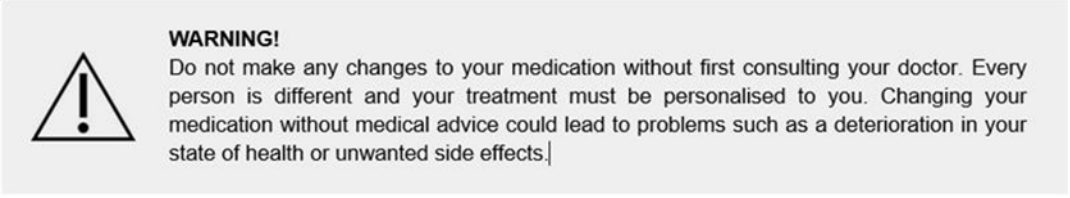
It is not required. PGx is a pre-emptive test.

1.12 How are reports formatted for clinical use?

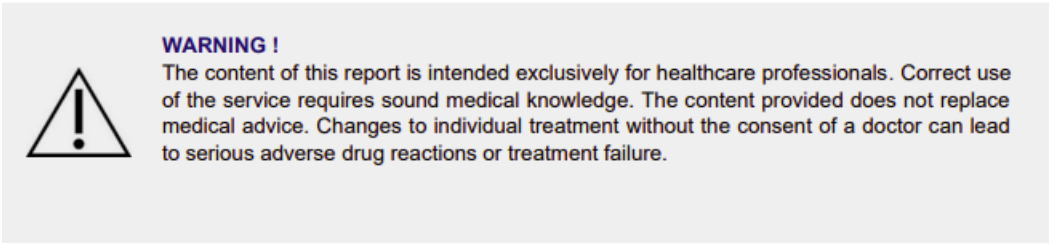
The patient results report will be available as PDF. Raw genetic data can be available upon request and they will be in VCF format. Genetics data is universal and will always assume the same format. All the necessary info required for any further action will be included in this report.

1.13 Is there a clinician-facing report that is separate from the patient-facing version?

No. Both the patient and GP reports are integrated into the one report. The patient is empowered to order his/her own report and advised to share with the GP or healthcare practitioner. There are highlighted warnings for the patients (1) and another warning (2) in the clinical area



Warning 1



Warning 2

1.14 Do reports provide clear, actionable prescribing guidance?
Yes. Please visit our sample report on the PGx webpage and also you can view a recorded webinar to learn more via our case-studies .An example of a question during our webinar -

1.15 Does PGx detect the predisposition for myalgia from Statins? Is there a Statin recommended by the test on such occasions?
Yes, the PGx test will identify if the patient is at risk of myalgia from certain statin medications and using the PGxAssist website, it will list alternative statins for the patient's phenotype. The decision to select an alternative station remains with the clinician.

1.16 Is dosage advice provided where relevant?
Yes. Please visit our sample report on the PGx webpage and attend our webinar or request a recording to experience this guidance first-hand.

1.17 Do reports clearly distinguish between: Risk of adverse drug reactions, and likely lack of efficacy?
Yes.

1.18 Do we need to use a specific Kit for sample collection?
The sample required is blood, collected in an EDTA tube. It can be refrigerated for up to 2 weeks but must NOT be frozen.

1.19 Will you be adding more genes and medications to your PGx testing?
The PGx test will be primarily processed with the Global SNP arrays. These SNP arrays contain all the data (genotypes) needed for future development of PGx. This means that in general, no additional wet lab changes are required to include more conditions/medications. What will be required is new evidence published in the pharmacogenomics guidelines to add on medications (PGx) and new published risk scores to generate a new PRS conditions or refine an existing one. This 'dry lab' implementation usually requires ~ 4-8 weeks. For example, in Q1 2026 we are including two genes to the pharmacogenomics service:
• MT-RNR1 (Mitochondrially encoded 12S rRNA): Variants, particularly m.1555A>G, are linked to aminoglycoside-induced ototoxicity. Identifying carriers before treatment prevents irreversible hearing loss, especially in neonatal and intensive-care patients.
• NAT2 (N-acetyltransferase 2): Polymorphisms affect the acetylation rate of drugs like isoniazid, hydralazine, and sulphonamides. Slow acetylators risk higher toxicity, while rapid acetylators may have reduced drug efficacy. NAT2 genotyping enables personalized dosing in infectious disease, cardiology, and rheumatology.
In addition, our database tracks over 1,300 emerging gene–drug pairs with medium or low evidence, enabling early insight into future clinical relevance and faster translation into practice. Key sources like CPIC, PharmGKB, DPWG, EMA, FDA, HCSC, PMDA, SwissMedic, and SEFF are continuously monitored through structured literature reviews and functional data curation.
For clinical use, we restrict reporting to actionable, high evidence-based content. For research purposes, we are additionally able to address gene–drug variants and medications beyond established clinical confidence levels.
Following the introduction of PGx, Eurofins Biomnis are focusing on driving clinical adoption and measurable impact in primary care in Ireland. Key priorities in 2026 include embedding PGx-enabled clinical decision support into everyday prescribing workflows for GPs, specialists, and pharmacists.

1.20 What if the patient wants another PGx or other genetic test in the future?

We can retain the genetic raw data produced from the pharmacogenomics test for a minimum of five years and the original blood samples (if applicable) for up to five years so that any customer can potentially opt for any future conditions/medications at a later time.

1.21 How do I go about ordering a PGx test?

If you do not have an account with us, please download and complete the account opening forms from the Healthcare Professional Clinics Resource webpage. We have an Orders Department you can order test consumables from using this form, also available for download from the same dedicated 'Resource & Documents' webpage for HealthCare Professionals.
The Test Request Form is available to download from our PGx webpage and our Test Request Forms webpage. Please complete the form, acquiring full written consent from your patient.
The Test Request form accompanies the blood sample. We have an integrated Logistics Service, Lablink Pathology Transport which services many of our clients. If you would like to avail of this service, please speak to the team directly - Email: lablinklogistics@ctie.eurofinseu.com Freephone: 1800 252 967 Tel: +353 1 295 8545
For a PGx test price, please email sales@ctie.eurofinseu.com or call +353 1 293 3690 (**option 5**)

1.22 Is there a difference between male and female phenotypes?

The literature indicates that males and females could respond differently to drugs, with women being at higher risk for toxicity to drugs at standard doses e.g. the case of treatment with fluoropyrimidines for cancer. A significant increase in toxicity has been described in female patients.

1.23 Can PGx be used in under 18 year olds?

Currently there is limited availability of PGx testing and clear paediatric PGx guidelines for the use of PGx testing globally which leaves us with a lack of evidence for PGx use in children. We only test where we know we have strong evidence to support the guidelines in the PGx report. Therefore, we cannot offer our PGx Array to under 18's in Ireland as a pre-emptive genetic test for asymptomatic children.
However, we can offer a PGx test to individuals under 18 with underlying/suspected conditions upon request from their clinician and with the consent of their parents/legal guardians.

2.0 TRAINING & SUPPORT

2.1 Do you provide clinician training for the interpretation of a PGx test result?

We are hosting a series of webinars to help clinicians read and interpret PGx results. We will maintain a recording of these webinars to share at any time.
PGXperts, our software partner, are experienced in providing live training sessions that include practical case studies and teach-back elements to reinforce understanding and clinical application. Supporting training materials and handouts are provided for ongoing reference and internal knowledge sharing.
Eurofins Clinical Genetics provide a dedicated clinician landing page, and will include onboarding videos, clear "how-to" guidance for using all web-based tools, FAQs, and links to trusted public educational resources such as the CERSI-PGx e-learning portal. Visit the free eLearning portal: CERSI-PGx eLearning Portal - BPSA - Learner Portal

2.2 Do you offer support for Results interpretation and clinical queries?

Clinical and interpretation-related enquiries that cannot be resolved at first line are escalated to PGXperts specialists, including affiliated clinicians and subject-matter experts, who provide evidence-based clarification on gene–drug interactions, clinical implications, and therapeutic alternatives. This model ensures that Irish GPs are consistently supported by expert oversight, enabling confident clinical decision-making while maintaining efficient workflows.

2.3 Do you provide governance support in incident and complaint investigations?

Eurofins Clinical Genetics is a laboratory accredited to ISO 15189:2022 and will tackle all incident and complaint reporting as per current protocols. PGXperts is a supplier to Eurofins Clinical Genetics and is accredited to ISO 13485. The PGx test is currently validated but not accredited (Note: there are no suppliers offering a comprehensive pre-emptive PGx service with ISO 15189 accreditation)

2.4 What support do you provide to identify suitable alternative medicine when the PGx report suggest avoiding a medication?

Meds&Me delivers clear, concise, and clinically actionable recommendations. In addition, the PGXperts web portal (https://www.pgxperts.com/PGxAssist) soon to go live, will provide clinicians with rapid access to information on pharmacogenetically affected medications and supports the identification of suitable alternative therapies where individual genetic variants indicate that a particular medicine should be avoided. This portal is viewed and explained in the webinars.

This web-based resource serves as a practical, quick-reference guide for healthcare professionals, offering treatment guidance and alternative medication options across key drug classes, including antidepressants, analgesics, antipsychotics, statins, proton pump inhibitors (PPIs), and CYP450 modulators.

3.0 DATA STORAGE & OWNERSHIP

3.1 Who owns the genetic data generated from the testing?

Eurofins Clinical Genetics Ireland.

3.2 What happens to a patient's sample after testing?

The blood sample will be destroyed after testing takes place and the test requester receives a report with their personalised results.

3.3 Is the genetic data stored long term?

Following the best practice guidelines of the Royal College of Pathologists. Patient PDF reports are stored for a minimum of 30 years and the raw genetic data is stored for a minimum of 5 years by Eurofins Clinical Genetics Ireland. If requested, we can delete the raw genetic data but not the reports.

The PDF report will be stored in Eurofins Clinical Genetics LIMS for a minimum of 30 years and the Genetic raw data will be stored in the AWS for a minimum of five years.

3.4 Is any data shared with third parties or used for research purposes?

No. We share the genetic data with our tertiary software providers PGXperts for analysis. PGXperts are required to save the raw data unless we instruct them to delete it.

4.0 CLINICAL GOVERNANCE

4.1 Are recommendations aligned with recognised clinical guidelines?

Our interpretations are based on a comprehensive and internationally recognised set of clinical, regulatory, and evidence-based references, including CPIC, PharmGKB, DPWG, EMA, FDA, HCSC, PMDA, Swissmedic, SEFF, NICE, and the MHRA. These sources ensure broad regulatory alignment and clinical relevance across multiple healthcare systems.