Enabling Personalized Medication

PGxProfile – Your genetics. Your medication.

Case study: Pain management

A patient has been suffering from severe back pain for six months. As the current medication is not providing sufficient relief, the physician prescribes a stronger painkiller Tramadol.

Despite taking the new medication, the patient reports persistent severe pain and new side effects. The physician is aware that the patient's genetics may influence the effect of Tramadol and decides to order a pharmacogenetic test using the PGxProfile.

A blood sample is taken and genotyping is requested from a human genetics laboratory. Seven business days later, the physician receives the PGxProfile of his patient, which includes the test results and the possible clinical interventions. The analysis reveals that the patient carries a variant of the CYP2D6 gene, significantly reducing the metabolism of Tramadol. This explains both the nausea and the ongoing pain. The physician therefore switches to an alternative active substance, Tilidine, which is not affected by the CYP2D6 gene. As a result of this therapy adjustment, the patient's symptoms resolve.

The patient will continue to benefit from the PGxProfile in the future: potential adverse drug reactions and therapy failures can be identified and prevented before medications are prescribed.

PGXperts PGxProfile

Your genetics. Your medication.

Physicians are often faced with the challenge that patients respond inadequately to conventional medication strategies or suffer from adverse drug reactions especially in the case of multimorbid patients receiving polypharmacy.

The PGxProfile provides you with information about your patients' pharmacogenetic (PGx) characteristics and supports you in personalizing their medication. This can help increase treatment effectiveness and reduce the risk of side effects.

Personalized Medication with PGxProfile

Using a blood or saliva sample, your patient's DNA undergoes molecular genetic analysis in a laboratory and is then pharmacogenetically interpreted using PGXperts software. Genetic findings are translated into phenotypes, clinical implications, and possible therapeutic interventions.

The results are provided to you in the form of an individualized PGxProfile. It enables the personalized selection and dosing of medications tailored to your patient's metabolism.

A second version of the PGxProfile is available for the patient in layman´s terms. This also helps the patient understand how their genetic makeup affects drug metabolism and fosters trust in their therapy. A treatment with fewer side effects typically improves patient adherence.

Diagnostic purposes

The PGxProfile can also be requested as part of a diagnostic evaluation. The genetic findings are carefully reviewed and interpreted by a clinical pharmacologist and a specialist in human genetics providing a high-quality, evidence-based foundation for decision-making in complex therapies.

Key benefits

- **Evidence-based pharmacogenetic information**
  154 gene-drug pairs based on CPIC, PharmGKB, DPWG, EMA, FDA, HCSC, PMDA, SwissMedic, SEFF
- **Clinical consequences and actionable insights**
  Clear guidance on pharmacogenetic effects
- **No PGx-specific knowledge required**
  Interactions classified by severity
- **Clinical benefit for many of your patients**
  30% fewer side effects through Personalized Medication
- **Quality management according to EN ISO 13485**
  PGXperts is a certified manufacturer of software for pharmacogenetics and pharmacology
- **Integrated into clinical routine**
  Embedded into the medication process with PGXperts PRiM

The first step towards Personalized Medication is a consultation – contact us now!

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For more information please visit: www.pgxperts.com/en

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