mfine /diagnostics

Need of the hour
msurePGx

4th
ADVERSE DRUG REACTION (ADR)
LEADING CAUSE OF DEATH GLOBALY[1]

ALMOST
38–75%
PATIENT DONT EXPERIENCE
THERAPEUTIC BENEFIT FROM MEDICATION[2]

1 in 4
PATIENTS IS PRESCRIBED MEDICATION THAT HAS A DRUG-GENE INTERACTION BASED CLINICALLY ACTIONABLE GUIDELINE AVAILABLE[3]

99%
PEOPLE HAVE A GENETIC VARIATION AFFECTING DRUG RESPONSE[4]

EFFECTIVE PRESCRIBING MAY BE ONE OF THE MOST CHALLENGING YET CRITICAL ASPECTS OF YOUR PRACTICE

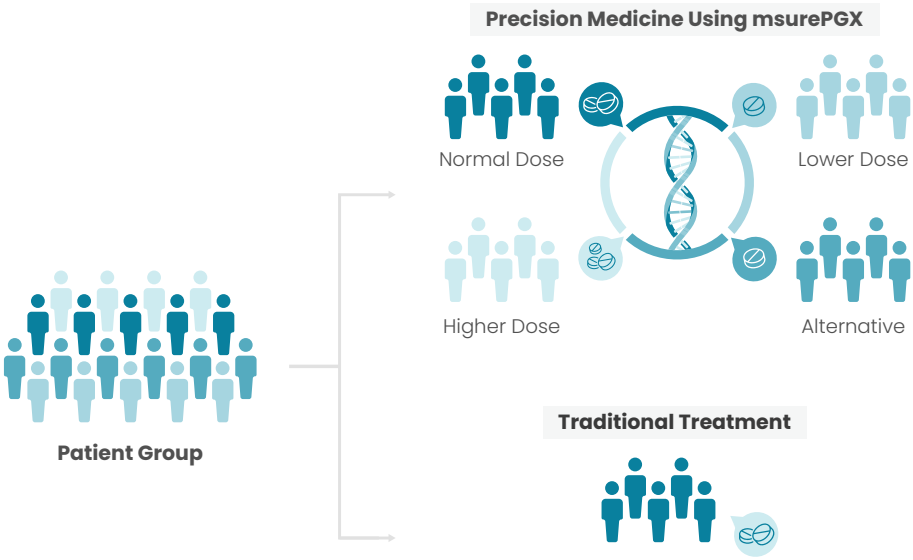
- Expand your resources to make prescribing more effective!
- Shift from a one-size-fits-all to a precision medicine approach!

Genes play a key role in the way medicines are metabolized and transported. Genetic variations that are linked to drug response or disposition could put a patient at risk for drug-related toxicity, unusual dose requirements, or a lack of therapeutic benefit.

Understanding your patient's genetic profile can help you make a more informed prescribing decision.

Shift From A One-size-fits-all

TO A PRECISION MEDICINE APPROACH



Genotype-based drug and dosage guidance to:

1. Maximize efficacy
2. Minimize toxicity

Trial and Error Method

- Same prescription
- Standard dose

Introducing msurePGx, India's Medical Grade Pharmacogenomics Test

- Now, it is possible to customize medication regimens to a patient's unique genetic profile with msurePGx testing
- msurePGx is a Pharmacogenomics test that analyzes the genetic variation that affects the function of drug-metabolizing enzymes and drug responses in an individual
- This may result in lower medical expenses for patients, safer medication regimens, reduced adverse effects, and improved drug efficacy

msurePGx test results remain consistent throughout the patient's lifetime! The results will be useful for future too.

The patient might develop new conditions where different medications need to be prescribed When new medications become available, you will be better equipped to decide if they are right for the patient.

Leverage The Power Of msurePGx For Medical Therapy Optimization In Order To:

Improve Patient Care

Use msurePGx results to Impact Clinical Care by maximizing efficacy and minimizing ADRs

Gain Trust

mSurePGx will make it easier for you to select the best medications for each individual right from the start

Provide a Differentiator

The ability to provide patients with a truly personalized treatment plan based on the best available evidence is what msurePGX can do for your practice

The U.S. Food and Drug Administration has acknowledged the value of pharmacogenomics in minimizing potentially harmful side effects and optimizing drug dosage

Why Choose msurePGX

msurePGX follows the latest guidelines prescribed by:

Clinical Pharmacogenomic Implementation Consortium (CPIC)

Food and Drug Administration (FDA)

Pharmacogenomics Knowledge Base (PharmGKB)

- Leverages powerful Next-Generation Sequencing (NGS) to analyze the genes that fall under the A and B categories and are actionable, and PGx testing is either recommended or required
- msurePGx is designed to detect allelic variants in **18 CPIC drug** response genes and **>68 unique alleles.** It gives results that are clinically actionable on over **70+ medications** belonging to **23 drug classes** and over **9 disease categories**
- Only medications with strong levels of evidence and backed by established guidelines are considered by msurePGx
- For each drug class, a detailed and personalized recommendation is provided
- To determine the drug metabolism status, biallelic analysis is performed
- The analytical sensitivity and specificity of this assay is estimated to be greater than 99%
- Test validated by Coriell repository samples

How to get mSurePGX Done?

STEP 1

Collect Sample

Blood, extracted DNA, or buccal swab, or saliva samples

STEP 2

Fill TRF

fill out the test requisition form and consent form

STEP 3

Sample Shipment

Send sample and completed TRF to mfne /diagnostics laboratoty

STEP 4

Comprehensive Pharmacogenomic Testing & Analysis

At mfine /diagnostics laboratory

STEP 5

Detailed Report

Detailed Drug Response Report with elaborated Dosage Recommendation

STEP 6

Develop Personalized Treatment and Dosage Regimen

Based on detailed recommendation

Who Should Get msurePGX Test Done?

- When before starting a new medicine, you can use pharmacogenomic testing to choose certain medicines for:
  - Acid reflux
  - Anxiety
  - Cancer
  - Depression
  - Infections
  - Pain
  - Seizures
  - Heart disease
- When changing medicine to a different one if a medicine didn't work well or caused side effects
- For patients with known adverse drug reaction(s) due to medications in the past, or there is family history of the same
- When a treatment regimen involving one or more of our covered drugs is not helping
- For patients who are on multiple medications
- For elderly people, as they are more likely to require hospitalization as a result of taking certain medications, such as blood thinners, opioids, phenytoin, etc.
- For health-conscious individual who may be interested in testing pro-actively and keeping the report handy for the future

REPORT AVAILABLE IN 2 WEEKS

msurePGX Potentially Impacted Medications:

• Cardiovascular
Anticoagulants, Antiplatelets, Statins

• Oncology
Fluoropyrimidines, Thiopurines, Hormone Antagonists & Related Agents, Antineoplastic & Immunomodulating Agents

• Immunology
Immunostimulants, Immunosuppresants

• Neurology
Anesthetics, Analgesics, Antidepressants, Anticonvulsants, ADHD, Antipsychotics

• Infectious Disease
Anti-HIV Agents, Antifungals, Antibiotics

• Gastroenterology
Proton-Pump Inhibitors

• Psychiatry
Antipsychotics, Benzodiazepines, Selective Serotonin Reuptake Inhibitors (SSRIs), Tricyclic Antidepressants

• Respiratory
Chloride Channel Activator

• Pain Management
Nonsteroidal Antinflammatory Drugs (NSAIDs), Opioids

• Others
Rasburicase, Ondansetron, Tropisetron

Note of Caution:
Pharmacogenetic testing, however, is not like a regular genetic test and hence does not provide a diagnosis of any disease that a patient might have. It is also not a test to determine the risk of developing a particular condition. It is specifically for determining the role a person's genes play in determining their response to different medicines.

References:

[1] Montastruc,et al. Pharmacol. 2021, 87, 4334–4340.
[2] Spear BB, et al.Trends Mol Med 2001;7(5):201–204.
[3] McInnes G, et al. Clin Pharmacol Ther. 2021;109(6):1528-1537
[4] Ji Y, et al. J Mol Diagn. 2016 May; 18(3): 438-445.

support@mfine.co www.mfine.co