

The PHASER Program

Pharmacogenomic (PGx) Testing
for Veterans



Understanding your
Pharmacogenomics Test Results

What is Pharmacogenomics (PGx)?

Pharmacogenomics uses information from a person's genes to understand how they respond to medicines.

- Genes are parts of our DNA that provide instructions on how your body develops and functions.
- Everyone has small differences in their genes.
- Because of this, people may respond differently to medicines.

The VA PGx Test

- The PHASER program supports PGx testing for Veterans.
- The VA PGx test is a genetic test for medicines commonly used by Veterans.
- Along with other medical information, your PGx test results help your provider determine if there is a better dose or type of medicine for you.

VA PGx Test Results

- Your results show each gene tested by gene name
- The type of gene you have is described in 2 ways – the genotype and phenotype – both describe the type of differences in genes that were found by the test

Test Details

Gene	Genotype	Phenotype
CYP2C19	*2/*17	Intermediate Metabolizer
CYP2C9	*1/*1	Normal Metabolizer
CYP2D6	*2/*2	Normal Metabolizer
CYP3A5	*3/*3	Poor Metabolizer
DPYD	Activity Score: 2	Normal Metabolizer
SLCO1B1	*1/*1	Normal Function
TPMT	*1/*1	Normal Metabolizer
VKORC1	-1639G>A G/A	Intermediate Warfarin Sensitivity

What Do These Results Mean?

- Many of the genes tested describe how your body processes medicines
- For example, rapid metabolizers process some medicines quickly
- Poor metabolizers may not process some medicines well

Remember, not all genes tested affect your medicines you are currently prescribed. Similarly, not all your medicines are affected by the genes tested. Please talk to your provider or pharmacist about how your test results apply to your medicines.

How Long Can My PGx Results Be Used in My Medical Care?

- PGx test results do not change over time. However, new information may change how the results are used.
- Scientists are still working to find other genes that are important for medicine response.
- You may be tested for new genes discovered in the future.

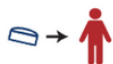
How Will My PGx Test Results Be Used?

- Your test results only tell us part of the story.
- Other things like age, overall health, other medicines you take, and body size also affect how your body responds to medicines.
- Your provider will use all these factors to prescribe the most appropriate medicines and doses for you.

Personalized Medicine



Patient A may see best results with **2 tablets** of a medication.



A third person, Patient C will only need **one-half of a tablet** of this same medication.



Another person, Patient B may only need **1 tablet** for their treatment.



A different person, Patient D, may need to take a **different drug** to see the same benefits as the previous 3 patients.

Privacy of Your PGx Results

Your PGx test results will be kept confidential within the VA and will only be shared with your permission or if there is a court order.

What Should I Do With My Test Results?

- PGx test results can be complex. Talk to your provider about questions or concerns for the most correct information.
- If you see more than one provider, please share your test results with your other providers. This is especially helpful if a different provider starts a new medicine for you, or if you see a provider outside the VA.



For more information,
please visit the
following sites:

VA PGx website:

<https://www.cancer.va.gov/phaser.asp>

National Institute of Health:

<https://www.genome.gov/genetics-glossary/Pharmacogenomics>



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