

## Other Things to Know

- This test does not find all PGx variants that could play a role in deciding which treatment is used.
- A few PGx variants are related to other medical conditions. If such variants are found, the healthcare team will discuss these results with you and/or your caregivers.
- There are some helpful laws in place that protect people against discrimination based on their genetic information in the areas of health insurance and employment.
  - ❖ However, there are exceptions and they do not apply to everyone. If you have questions, please talk with your healthcare team.
- Insurance may or may not cover the cost of PGx testing. Lurie Children's will check with your insurance company before doing the PGx test.

If you have questions about your bill, please contact Patient Financial Services at 877.924.8200.



If you would like to learn more about the genes that will be tested or the medicines that might be affected, please talk with your healthcare team for more information.

Contact information for your healthcare team:

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# Pharmacogenomic Genetic Testing

Helpful Information



 **Ann & Robert H. Lurie  
Children's Hospital of Chicago®**

## Cells, DNA, Genes!

Trillions of cells make up our bodies. Cells make the products our bodies need to grow and stay healthy. The instructions for making these products are contained in our DNA, which is stored inside the cell. A gene is a set of DNA instructions for making one of the products that contributes to how our body looks and works.

## Genetic Variation

### Everyone's Genes Are a Little Different

Genetic differences are called *variants*. Many variants have little to no effect on how the body works, but some are related to health problems. Further, some variants are related to how our bodies process or respond to medicines.

**Pharmacogenomics (PGx, for short) is the study of the genes and variants related to how our bodies respond to drugs.**

## Pharmacogenomics (PGx)

- Not all people have the same response to the same medicine.
- Most people respond to a medicine in a way that helps their health problem.
- Some people's response to the same medicine is not enough to help their health problem.
- Other people have side effects to the same medicine. Side effects are unwanted symptoms from a medicine.
- Genetics can help predict how people will respond to some medicines.

## Pharmacogenetic Testing

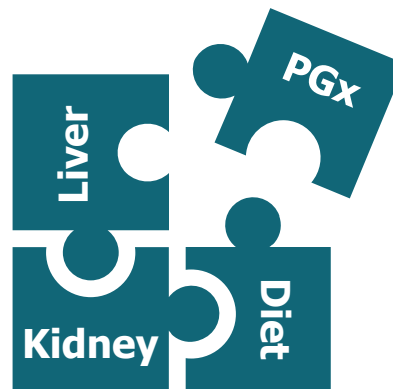
- Looks at a person's genetic make-up to identify genetic variation.
- Is performed on a blood sample (1 to 2 teaspoons).

### Who should get PGx testing?

The healthcare team may recommend PGx testing based on medicines that someone has used in the past or medicines that might be used in the future.

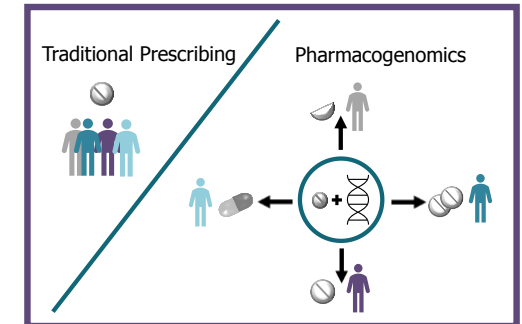
### What are the limits of PGx testing?

- PGx testing will check for common genes and variants. It is possible that uncommon variants will not be found with this testing.
- Some of the effects of PGx variants have not been discovered yet.
- Testing might need to be repeated if important new variants are discovered.
- Several other factors affect how medicines will work in the body. PGx testing is only one piece of the puzzle.



## Results

PGx test results will be used to create a personalized medicine plan. Based on PGx results, some medicines will be used at higher doses, other medicines will be used at lower doses, and some medicines will be avoided.



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- The healthcare team that ordered the testing will discuss the results with you.
- You will also receive a report with the results and the medicines that might be affected by your specific PGx variants.
- The results will be kept in your electronic health record according to HIPAA rules.

### Your PGx Results Your Future

- ❖ PGx results can help guide your medicine decisions lifelong.
- ❖ The results might be helpful for future medicines.
- ❖ It is important to share PGx results with all healthcare teams outside of Lurie Children's Hospital.