

PHARMACOGENOMIC TESTING FOR **WARFARIN**

What is pharmacogenomic testing?

Pharmacogenomic testing looks at changes in your genetic code, called polymorphisms, that can affect how you respond to certain medications. Some genetic changes may make it more likely to have side effects from a medication, while other genetic changes may make it less likely that the medication will help treat your symptoms. Knowing whether or not you carry these genetic changes can help your healthcare provider select the medication and/or dose that will work best for you.



Pharmacogenomic testing may not be accurate for people who have received some types of transplants. Talk to your healthcare provider if you are a transplant recipient.



How do genetics affect my response to warfarin?

Like many medications, warfarin is processed (metabolized) in your body to get rid of it. This happens with the help of a special protein called CYP2C9. Another protein, VKORC1, also can influence the activity of warfarin in your body. Your body's instructions for making these two special proteins are located in your DNA. Variations in the instructions for either of these proteins can affect your body's sensitivity to warfarin and international normalization ratio (INR) level.

Increased sensitivity to warfarin means your body may process warfarin more slowly than other people. This could increase your INR and your risk of bleeding.

Decreased sensitivity to warfarin means your body may process warfarin more quickly than other people. This could decrease your INR and increase your risk of clotting.



What can pharmacogenomic testing for warfarin tell me?

Warfarin is a medication used to change blood's ability to clot. Knowing whether you carry any changes in your body's instructions for making the special proteins involved in processing warfarin is very important. The results of this test can help your healthcare providers select the most appropriate dose of warfarin for you.

It is important to know that pharmacogenomic testing can influence decisions about which medication may work better for you, but it is not the only factor. Other things that can affect how you respond to a medication include your age, sex, the symptoms of your condition, other medications or supplements you are taking, any other health conditions you have (for example, liver or kidney problems)—and possibly other changes to your genetic code that have not been discovered yet.



What can't this pharmacogenomic test tell me?

- This pharmacogenomic test cannot tell you how your family members might respond to this medication.
- This pharmacogenomic test cannot tell you about your diagnosis.
- This pharmacogenomic test cannot tell you about your risk for diseases.

What should I do after I receive my test results?

Talk to your doctor or pharmacist about your results to determine whether any changes should be made to your medications. Ask them:

- What do these results mean?
- How will these results affect how I take my medication?
- Do these results affect any other medications I am taking?

DO NOT START, STOP, OR CHANGE DOSES OF YOUR MEDICATIONS WITHOUT CONSULTING YOUR HEALTHCARE PROVIDER.

