PHARMACOGENOMIC TESTING FOR CARBAMAZEPINE/ OXCARBAZEPINE

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.

Marti

How do genetics affect my response to carbamazepine and oxcarbazepine?

Every person has multiple types of HLA genes, which play an important role in the immune system. These genes give specific instructions for making special HLA proteins that can recognize things that are harmful to the body and get rid of

them. Variations in these instructions could cause your body to recognize carbamazepine and oxcarbazepine as harmful and result in a reaction to the medication.

Patients who have a certain type of HLA gene polymorphism may be more likely to have severe skin reactions and hypersensitivity (an undesirable reaction produced by the immune system) to carbamazepine and oxcarbazepine that could be life-threatening. These individuals could experience harm from taking carbamazepine and oxcarbazepine.



Carbamazepine and oxcarbazepine are medications most commonly used for treating epilepsy, trigeminal neuralgia, and bipolar disorders. Knowing what type of HLA genes you have can help your healthcare providers select the right medication for your condition and prevent harmful effects. Your doctor may choose a different medication that is not affected by the specific HLA gene.

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 else should I know about this test?

Pharmacogenomic testing for carbamazepine and oxcarbazepine might provide information about how you'll respond to some, but not all, other medications. Talk to your healthcare provider for more information on how test results could apply to other medications you may be taking.

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.