Genotypic Resistance Testing

Tests Done to Check on Best Medication Use in HIV Infection

WHY GET TESTED?

If you have been diagnosed with HIV and will be receiving anti-viral therapy or you are receiving anti-viral therapy that is not working effectively.

Results from genotype resistance testing can help your caregiver with decisions about the best treatment for other diseases, such as, hepatitis C virus (HCV). The cell makeup of HCV must be done first to determine:

- The best treatment.
- How long the treatment should last.

WHEN SHOULD I GET TESTED?

When your caregiver wants to put you on anti-viral therapy and if your HIV viral load values rise steadily even though you are receiving anti-viral therapy.

IS A SAMPLE REQUIRED?

A blood sample is drawn from a vein in your arm.

WHAT IS BEING TESTED?

The genetic code of the strain of HIV you have been infected with is tested. Changes in the virus may cause resistance. This test will see if there are any genetic mutations or changes known to cause drug resistance. A mutation is something the virus does to try to avoid being killed or harmed by your medicine. HIV may become resistant to an antiviral medicine if the virus keeps multiplying while a person is taking the drug.

HOW IS THE TEST USED?

Genotypic resistance testing helps your caregiver make better treatment decisions when existing anti-viral therapies are not working effectively. If drug resistance is found, a new treatment regimen may be chosen.

WHEN IS IT ORDERED?

Genotypic resistance testing is ordered when viral load values (a measure of how much HIV is in your body) rise steadily during therapy. This indicates treatment failure and the possibility of resistance. The test may also be ordered before the start of therapy for an acute infection if a drug- resistant virus is suspected, so that immediate, appropriate therapy is possible.

WHAT DOES THE TEST RESULT MEAN?

The test result identifies the viral mutations or changes. These are described by a combination of letters and numbers, for example K103N. Based on the test result, your caregiver will identify whether a mutation found is one known to cause drug resistance. Not all mutations cause drug resistance. Some mutations are very common, and resistance is known to certain drugs and/or drug combinations. This is important information for physicians to help them predict which treatment regimen will work best for each patient.

IS THERE ANYTHING ELSE I SHOULD KNOW?

Genotypic resistance testing, although relatively new, is available in large reference laboratories. The test is not good at detecting “minority” mutations, which affect less than 20% of the virus population.

Genotypic resistance testing works best when there are at least 1,000 copies of the virus per milliliter of blood. If there are not enough copies of the virus in your system, the test probably will not work. It may not detect resistance to all drugs.

For More Information, Visit: http://www.labtestsonline.org/

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