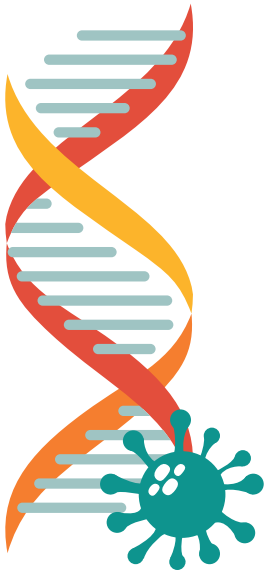
The Role of Genotypic Resistance Testing in Immediate Antiretroviral Treatment (iART)



Health care providers should provide genotypic resistance testing for clients when they enter into HIV care. This testing helps to identify the presence of transmitted drug-resistant mutations in viral genes that are targeted by current antiretroviral regimens.

Untreated HIV replicates rapidly, and during the viral replication process there is a high mutation rate, supporting the recommendation to perform baseline genotypic resistance testing. [1]

Clinical guidelines from the New York State Department of Health AIDS Institute, International Antiviral Society-USA, U.S. Department of Health and Human Services and the World Health Organization recommend baseline resistance testing at the time ART is started. **These guidelines also recommend not delaying initial HIV treatment while waiting for a client's genotypic resistance test results. Once results are available, the initial treatment regimen can be modified, if necessary.**[2,3,4]

Genotypic resistance testing is low-cost and covered by insurance. The results are available within one to two weeks, and laboratory reports are easy to interpret.[1]

Tests to Order

Standard genotypic drug-resistance testing in clients entering HIV care involves testing for mutations in the reverse transcriptase (RT), protease (PR) and integrase genes. The prevalence of integrase strand transfer inhibitor (INSTI) resistance remains low compared with RT and PR resistance.[5,6] However, INSTI resistance may become a concern due to the increased use of integrase-based treatment regimens—providers should carefully monitor their clients for resistance.

For questions regarding resistance tests or results, call the Clinical Education Initiative's HIV experts at **866-637-2342**.

REMEMBER

Genotypic resistance testing is a part of the standard, baseline bloodwork at a client's initial HIV care visit, whether or not they start treatment. Baseline genotypic resistance testing among clients who are just entering HIV care is likely to improve their clinical outcomes and is cost-effective.1 Based on test results, providers can modify their clients' initial treatment regimens, if needed. Providers should not delay starting a client's treatment while waiting for test results.

References

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