Drug Resistance From Truvada as PrEP Does Not Last

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Individuals who develop resistance to the components of Truvada (tenofovir/emtricitabine) after contracting HIV shortly before or while taking pre-exposure prophylaxis (PrEP) do not maintain such resistance for long, aidsmap reports. Researchers in the Partners PrEP trial conducted a small substudy of nine participants who showed signs of drug-resistant virus when they tested positive for the virus.

If people take PrEP while they are HIV positive, in rare cases they may develop drug resistance to either of the two antiretrovirals in Truvada. In clinical trials, this has typically happened when participants contracted HIV very shortly before starting PrEP. (Individuals are required to test HIV-negative before starting PrEP. But if they were infected very recently the test may not detect the virus, resulting in a false negative test.) However, there have been rare documented cases of people receiving their PrEP prescription before contracting the virus who then develop drug resistance.

The researchers ran resistance tests on archived blood samples drawn 6, 12 and 24 months after the participants stopped PrEP. (The participants discontinued Truvada after testing positive.)

There were archived, pre-seroconversion blood samples available for four of the participants that showed a positive HIV RNA test result but a negative antibody result, indicating acute, or very early, infection. None of the virus in these samples was resistant to the components of Truvada, suggesting that these four individuals developed drug resistance while taking the tablet as PrEP.

Six months after discontinuing PrEP, all nine participants saw their resistant virus drop to undetectable levels, which persisted in the 12- and 24-month samples.

One of the participants started HIV treatment 33 months after contracting the virus, taking Viramune (nevirapine) and Truvada (tenofovir/emtricitabine). After three months of treatment this individual had an undetectable viral load.

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