Urine Test Detects if Someone Took PrEP the Day Prior

This cheap test could be a good way to assess adherence, unless those who adhere poorly fudge the result by taking a dose before a visit.

March 27, 2019 By Benjamin Ryan

Researchers have developed a cheap and reliable urine test to assess adherence to the daily Truvada (tenofovir disoproxil fumarate/emtricitabine) as pre-exposure prophylaxis (PrEP) regimen, aidsmap reports. However, because the test determines drug levels based only on the last 24 hours of Truvada usage, researchers are concerned that those who adhere poorly may fudge the test result by taking a dose the day before a scheduled clinic visit.

Presenting their findings at the 2019 Conference on Retroviruses and Opportunistic Infections (CROI) in Seattle, researchers developed a $2 urine test that assesses the presence of antibodies to the tenofovir component of Truvada. This is a point-of-care test, meaning it can be conducted and produce results on-site.

The researchers enrolled 30 men and women receiving PrEP in Thailand in the TARGET study to determine the drug level associated with having taken Truvada within 24 hours.

The participants provided 637 urine samples over a six-week period.

A threshold of 1,500 nanograms per milliliter of the tenofovir antibody was 98 percent accurate in identifying whether a participant had taken Truvada within 24 hours. The test correctly identified that someone had in fact taken Truvada within 24 hours in 94 percent of cases and correctly identified that an individual had not taken the drug within 24 hours 99 percent of the time. This level of accuracy was comparable to other means of testing PrEP adherence.

To read the aidsmap article, click here.

To read the conference abstract, click here.

To view a webcast of the conference presentation, click here.

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