Cell Phone–Based HIV Test Proves Highly Precise

This could help ease the effort to conduct HIV testing in poorer nations.

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An HIV test conducted via a cell phone was highly accurate in a recent study, raising hopes that this technology could help to more cheaply and easily provide screening for the virus in poorer nations.

Publishing their findings in Nature Communications, researchers developed a cell phone–based test that requires a single drop of blood and uses nanotechnology, a microchip and a 3-D–printed phone attachment to detect HIV.

The testing mechanism accurately diagnosed HIV in 99.1 percent of cases and accurately diagnosed the lack of the virus in 94.6 percent of cases. The associated cost was less than $5 per test.

“Health workers in developing countries could easily use these devices when they travel to perform HIV testing and monitoring,” said the study’s senior author, Hadi Shafiee, PhD, a principal investigator in the Division of Engineering in Medicine and Renal Division of Medicine at Brigham and Women’s Hospital in Boston. “Because the test is so quick, critical decisions about the next medical step could be made right there. This would eliminate the burden of trips to the medical clinic and provide individuals with a more efficient means for managing their HIV.”

To read a press release about the study, click here.

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