

Adding Nucleic Acid Testing to HIV Screening May Help Identify More People with HIV

Patients willing to use automated systems to retrieve results

June 15, 2010

Debra Kain

Community-based HIV testing programs generally use only HIV antibody testing, but nucleic acid testing (NAT) can detect the presence of HIV earlier.

Researchers at the University of California, San Diego School of Medicine studied more than 3,000 patients who sought HIV testing in community-based clinics in or near San Diego to examine the yield of testing with a rapid test plus NAT and to see whether patients would be willing to access their results by phone or computer.

Their study, published June 14 in the *Annals of Internal Medicine*, showed that NAT testing increased the HIV detection yield by 23%, and that a large majority of study participants received their negative test results by automated phone or internet systems.

"While the findings may not be generalized to all populations and testing programs, we did find that NAT programs that include automated systems for result reporting can increase case yield, especially in settings that cater to those men having sex with men," said the study's first author Sheldon Morris, MD, MPH, assistant clinical professor at UC San Diego's Antiviral Research Center.

Despite decades of prevention efforts in the U.S., the incidence rate of HIV has remained stable. Because the earliest stages of HIV infection represent a period of maximum infectiousness, early and accurate detection is critical to control the HIV epidemic.

"Extending the use of NAT to routine HIV testing programs might help decrease the HIV incidence rate by identifying persons with acute infection that would otherwise be missed through routine screening," said Morris. "In addition, automated reporting of negative results may prove an acceptable and less resource intense alternative to face-to-face reporting."

The patients were first tested for HIV with a rapid saliva test. If the result was positive, a counselor informed the patient and blood was obtained for a standard HIV test. If the result was negative, blood was obtained for a NAT. Nearly one quarter of persons with identified cases of HIV had positive results only by NAT testing. More than two-thirds of patients with negative NAT results retrieved them via computer or voicemail.

Most participants in the San Diego study (56%) and those with HIV (91%) were men having sex with men. According to the UCSD researchers, those with higher incomes, younger ages, no testing at substance abuse rehabilitation centers, no recent syphilis and no methamphetamine use were more likely to access negative NAT results by either internet or voicemail systems.

Contributors to the study were Susan J. Little, MD, Terry Cunningham, MAOM, Richard S. Garfein, MPH, PhD, Douglas D. Richman, MD, and Davey Smith, MD, MAS; all of UC San Diego School of Medicine.

The study was supported by funding from the California HIV/AIDS Research Program and the National Institutes of Health.

Media Contact: Debra Kain, 619-543-6163, ddkain@ucsd.edu