Abstract #40

Implementing a Multiple Rapid HIV Test Algorithm to Quickly Identify False Positive Rapid Tests and Provide Immediate Referral to Care for Persons Likely to be Infected with HIV, San Francisco, CA 2007

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PROJECT

We developed, piloted and implemented a research study to assess practical and public health implications of adding additional rapid tests for clients who test preliminary positive with the rapid screening test (OraQuick Advance HIV-1/2, Orasure Technologies Bethlehem, PA) at HIV counseling, testing and referral (CTR) sites in San Francisco, CA. Over 100 counselors and staff at multiple CTR sites in San Francisco were trained to conduct up to two additional rapid tests (Clearview Stat-Pak HIV-1/2 [Inverness Biomedical, Boston MA] and Uni-Gold Recombigen HIV-1 [Trinity Biotech, Bray, Ireland]) and provide modified counseling messages for clients whose additional rapid test results indicated that they were likely to be infected with HIV, or were most likely false positive on the initial rapid HIV screening test. To evaluate the performance of the rapid test algorithm (RTA), plasma specimens from all clients with preliminary positive screening test results were sent to the San Francisco public health laboratory for confirmatory testing. We report the preliminary experiences from August 2007, the first month after implementation of these new procedures.

ISSUES

Current CDC guidelines for rapid HIV testing recommend that all preliminary positive rapid tests be confirmed with laboratory-based supplemental testing. Despite the high specificity of individual rapid HIV tests, false positives do occur. Also, many people who test preliminary positive do not return to receive their confirmatory test results. Additional rapid tests conducted at the point of care may more quickly identify persons likely to be false positive on an initial rapid test and assist in the decision to immediately refer likely infected persons for further medical evaluation and follow-up.

RESULTS

A total of 457 individuals were tested with the RTA at 4 CTR sites. Sixteen (3.5%) had an initial reactive result 7 (44%) of whom had non-reactive results on subsequent rapid tests and were considered to be most likely uninfected. The remaining 9 were also reactive on additional rapid tests and were considered likely to be infected, all of whom were immediately referred and successfully linked to HIV care. All laboratory-based test results were concordant with the interpretation of the RTA. During the same period at other non-study sites in San Francisco, 719 individuals were tested with a total of 18 (2.5%) persons having an initial reactive result. Of these, 5 (28%) were found to be falsely positive based on non-reactive laboratory testing. The remaining 13 were confirmed by laboratory based testing; however, 1/13 persons was lost to follow-up and on average it took 7 days for these clients to learn their confirmatory results and for those confirmed positive to be referred to care.

LESSONS LEARNED

Adding additional rapid tests at the point of care appears to be a useful method for quickly differentiating between clients that had a false positive rapid test and those likely to be truly infected. This immediate differentiation can be important in counseling clients during receipt of the preliminary positive result, and the RTA may also provide the benefit of immediate referral for clients likely to be infected with HIV.