Abstract #15

Retrospective Application of the Proposed CDC/APHL Rapid Testing Algorithm in New Jersey 2004-7

Abstract Category:	Performance of HIV Point of Care Test Algorithms Using Combinations of Rapid Tests
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OBJECTIVE

To retrospectively evaluate the performance of the CDC/APHL Proposed Testing Strategies for Point of Care HIV Rapid Testing Facilities, using combinations of rapid HIV tests.

METHODS

Rapid HIV testing began in November 2003 at publicly-funded sites in New Jersey. Since, July 2004 more than 100,000 rapid HIV tests have been performed utilizing OraSure OraQuick and OraQuick Advance. Testing logs and distribution data from NJ Rapid HIV Testing provided source data for clients tested and negative results. Between July, 2004 and April, 2005, 363 serum specimens were sent to the NJ Public Health & Environmental Laboratories (NJ PHEL) for confirmatory testing of Oraquick preliminary positive HIV r tests. These were re-tested using three alternative rapid HIV tests: Trinity UniGold, Biorad Multispot and MedMira Reveal, and re-tested using OraSure OraQuick. Beginning in January 2006, serum and plasma collected one month after preliminary positive rapid HIV tests with negative confirmatory testing was used to document true HIV serostatus, assay reproducibility, alternative rapid assay performance and concordance with traditional confirmatory procedures.

RESULTS

For the group of 363 serum specimens, all repeated OraQuick positive; 355 (97.8%) were Western blot positive and confirmed by UniGold and Multispot. Reveal correctly confirmed positive specimens that it tested, but was limited by hemolysis in stored samples. As of May, 2007 of 89,961 Oraquick tests (both fingerstick and oral) performed in New Jersey, 88,740 (98.6%) were negative, 1221 (1.4%) were preliminary positive. Of those preliminary positive tests, 1,081 (88.5%) were confirmed by EIA and Western blot testing. Of the 140 (11.5%) discordant specimens, 84 were lost to follow-up. Fifty-six clients were re-tested one month later by two or more alternative rapid HIV assays, by EIA and Western blot testing, and by nucleic amplification testing (NAAT). All 56 were negative by NAAT, UniGold and Inverness StatPack. None was Western blot positive.

CONCLUSIONS

Retrospectively, alternative rapid HIV testing used in accord with the proposed CDC/APHL rapid testing strategies was at least as effective as Western blot in determining the correct serostatus of patients with preliminary positive rapid tests in New Jersey over the period 2004-2007.