Abstract #42

Screening for Acute HIV-1 Infection at NYC DOHMH Public Health Laboratory

Abstract Category:	Strategies for Targeted Screening for Acute HIV-Infection
Primary Author:	Maria Carlos
Affiliation:	NYC Department of Health and Mental Hygiene Public Health Laboratory, New York, NY
Co-Authors:	W.R. Oleszko, S.T. Beatrice, A. Punsalang, M. El-Fishaway, E. Lee, R. Pirillo

OBJECTIVE

In May 2005, the New York City Department of Health and Mental Hygiene's (NYC DOHMH) Public Health Laboratory (PHL) initiated a pilot study to screen for acute HIV-1 infections from individuals who have visited the NYC DOHMH Sexually Transmitted Disease (STD) clinics or agreed to participate in a study with New York University Medical Center (NYU). The main objective of the PHL pilot study was to establish an acute HIV-1 infection screening algorithm.

METHODS

Two hundred four (204) blood samples were collected from individuals, who visited the clinics, and noted either symptoms of primary infection or recent high risk behavior with HIV positive partners. The methods for testing included: HIV 1/2 PLUS"O" (Genetic System HIV-1/HIV-2 PLUS O EIA), HIV-1 Western blot (Genetic System HIV-1 Western Blot), HIV-2 EIA (Genetic System HIV-2 EIA), Multispot HIV1/HIV-2 Rapid test; HIV-1 DNA PCR (in-house), and HIV-1 RNA Viral Load (Amplicor HIV-1 Monitor Test, version 1.5).

RESULTS

Specimens were collected over a 28 month period from patients suspected of having acute HIV infection. All 204 were screened for the presence of HIV-1 antibody, RNA (plasma) and DNA (WBC). Eight out of 204 (3.9%) specimens had detectable HIV-1 DNA and RNA and were negative for HIV-1 and HIV-2 antibodies. All 8 specimens had HIV-1 RNA results greater than 750,000 copies/ml.

CONCLUSIONS

Testing for the presence of HIV-1 RNA or DNA can effectively be used as a tool for screening of acute HIV-1 infections in high-risk populations compared to the standard HIV antibody screening algorithm.