

# HIV Testing Practices in Washington DC, and Bronx, NY, Hospitals Participating in the HPTN065 (TLC-Plus) Study

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## Background

One objective of the HPTN 065 ,Test, Link to Care, Plus Treat (TLC-Plus) study in Washington, DC, and the Bronx, NY, is to determine the feasibility of expanded HIV testing with universal offering of HIV screening for persons admitted to emergency departments and as inpatients at 14 participating hospitals. These hospitals serve populations with high HIV prevalence.

## Methods

In January 2012, 14 hospital study coordinators for HPTN 065 from Washington, DC, and Bronx, NY, completed a survey on:

- Baseline HIV testing practices
- Ability to implement screening on-site with a third- or fourth-generation HIV immunoassay
- Ability to conduct supplemental testing using an HIV-1/HIV-2 antibody differentiation test and a nucleic acid test (NAT)
- Barriers to implementing on-site automated testing or supplemental testing with a differentiation test and NAT .

## Results

- HIV screening practices (Table 1)
  - No hospitals use fourth-generation assays
  - 7 use third-generation tests, 5 of which are fully automated
  - 5 use point-of-care rapid tests for screening in the laboratory
  - 1 uses an HIV-1/HIV-2 differentiation test
  - 1 does not conduct screening tests in-house
  - 7 hospitals are currently adopting 3<sup>rd</sup> or 4<sup>th</sup> generation laboratory-based immunoassays.

## Results (continued)

**Table 1. HIV testing practices in Bronx, NY and Washington ,DC, hospitals**

		Total
		N (%)
<b>Laboratory Testing</b>	ADVIA Centaur HIV 1/O/2*	3 (21%)
	Ortho VITROS Anti-HIV-1/2*	2 (14%)
	Bio-Rad HIV-1/2 Plus O*	2 (14%)
CLIA-waived rapid test only		5 (36%)
Multispot HIV-1/HIV-2		1 (7%)
Sent out		1 (7%)
<b>Oversees CLIA-waived rapid tests outside laboratory</b>		10 (71%)
<b>HIV-1 Western blot</b>	Conducted in-house	1 (7%)
	Sent out	13 (93%)
<b>HIV-1 NAT **</b>	Abbott RealTime	2 (14%)
	COBAS Ampli-prep/Taqman	2 (14%)
	Roche Amplicor	2 (14%)
	Versant RNA 3.0 (bDNA)	1 (7%)
Sent out		7 (50%)

\*3rd generation tests

\*\*Laboratories are not using the nucleic acid viral load tests for diagnosis, but they can be ordered by a physician who suspects acute infection or receives discordant antibody test results.

- Supplemental Testing:
  - All hospitals rely on the HIV-1 Western blot, but only one conducts the test in-house (Table 1)
  - Four hospitals do not report reactive immunoassay test results to physicians until Western blot results are completed
  - Five hospitals plan to implement the Multispot HIV-1/ HIV-2 antibody differentiation test as a supplemental test
  - Seven hospitals conduct quantitative viral load NAT, but not as a supplemental test
- Barriers to implementing on-site automated testing or supplemental testing other than Western blot
  - Three hospitals indicated that fully automated HIV testing is more expensive than rapid testing
  - Two did not see the need for on-site automated HIV testing
  - Three did not see a need for HIV-1/HIV2 differentiation testing

**Table 2. Impediments to conducting NAT<sup>†</sup> in-house in 7 Washington, DC and Bronx, NY, hospitals that send out for HIV-1 NAT**

Lack of physical space	1 (14%)
Workforce/staffing	2 (29%)
Low volume	1 (14%)
No perceived need	1 (14%)
None	2 (29%)

† Nucleic Acid Test

## Discussion

- Fully automated third- or fourth-generation HIV testing could help screen larger numbers of patients, improve turn-around-times, reduce overall HIV testing costs and improve sensitivity for early HIV infection.
- The lack of perceived need and misconceptions about the overall cost of automated HIV screening tests are barriers to adoption of third- or fourth-generation testing and alternatives to the Western blot.
- Testing practices in these hospitals may not be representative of practices in other hospitals in similar settings.

## Conclusions

- Many hospitals in this study continue to rely on labor-intensive point-of-care rapid tests, even for laboratory-based testing.
- All hospitals still rely on the HIV-1 Western blot for confirmation.
- All hospitals without 3<sup>rd</sup> or 4<sup>th</sup> generation tests indicated that they are in the process of adopting those tests.

## Partners



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