BACKGROUND

- New York State (NYS) Public Health Law requires laboratories conducting HIV-related testing for NYS clinicians and/or residents to electronically report any laboratory test, tests, or series of tests approved for the diagnosis of HIV or for the periodic monitoring of HIV infection.
- Laboratories report using the Electronic Clinical Laboratory Reporting System (ECLRS), a single secure platform for all laboratory reporting to the State.
- The NYS Department of Health (NYSDOH) Bureau of HIV/AIDS Epidemiology (BHA/E) enrolls labs conducting testing into ECLRS reporting.
- In June 2014 the Centers for Disease Control and Prevention (CDC) and the Association of Public Health Laboratories recommended a diagnostic testing algorithm (algorithm) for HIV infection that offers several advantages over the traditional enzyme immunoassay (EIA)-Western blot strategy, including earlier and more accurate detection of HIV infections, the ability to differentiate between HIV-1 and HIV-2 infections, and lower costs.
- The objective of this study was to use routinely submitted electronic laboratory results to identify test type and testing methodology (i.e. 3rd or 4th generation).
- As Ag is detectable earlier in HIV infection than Ab (Figure 1), the HIV-1/2 Ag/Ab Combo Tests are preferred over the less sensitive Ab only HIV-1/2 immunoassay.
- The greatest volume of reporting of HIV-1/2 Ag/Ab combo immunoassay test results is by commercial laboratories.
- By August 2015, 65% (30/46) laboratories were using the HIV-1/2 Ag/Ab combo immunoassay test as of August 2015. Nearly half of reporting hospital laboratories continue to use the less sensitive HIV-1/2 immunoassay (Figure 5).

RESULTS

- Number of Lab Reports
- Specimen Collection Month and Year
- FIGURE 2: Frequency of Reported HIV-1/2 Ag/Ab Combo Immunoassay and HIV-1/2 Immunoassay Test Results by Month of Specimen Collection, 2014-2015
- FIGURE 4: Percent of HIV-1/2 Ag/Ab Combo Immunoassay and HIV-1/2 Immunoassay Test Results by Laboratory Type, January 2014-August 2015
- FIGURE 5: Percent of Laboratories HIV-1/2 Ag/Ab Combo Immunoassay and HIV-1/2 Immunoassay Testing by Laboratory Type in August 2015

CONCLUSIONS

- After nearly two years, the majority of laboratories reporting algorithm Step 1 results to the NYSDOH have transitioned to the recommended HIV Ag/Ab combo immunoassay.
- Though substantial uptake of the preferred more sensitive test has occurred, several labs are not using the preferred testing methodology. Notably hospital laboratories lag behind public and commercial labs in adopting the HIV-1/2 Ag/Ab combo immunoassay.
- Most commercial and public laboratories have moved to 4th generation testing.
- The greatest volume of reporting of HIV-1/2 Ag/Ab combo immunoassay test results is by commercial laboratories.
- Education efforts should be made to encourage hospital laboratories to transition to the use of the HIV-1/2 Ag/Ab combo immunoassay test for Step 1 of the diagnostic testing algorithm.
- Laboratories are changing to recommended HIV testing methodologies. However, contractual and financial responsibilities may have precluded immediate adoption.
- Health departments should consider monitoring the adoption of the recommended test to improve early detection of HIV infection.

ACKNOWLEDGEMENT

This presentation was supported by the Cooperative Agreement Number PS13-130204CONT16 from the CDC. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the CDC.

CONTACT:
Joanne Gerber
AIDS Institute, NYSDOH
ESB, Corning Tower
Albany, NY 12237
Joanne.Gerber@health.ny.gov