UNDERSTANDING THE HIV TESTING ALGORITHM

The State of Wisconsin AIDS/HIV Program is not a medical provider and does not provide medical advice. The following testing recommendations are from current Association of Public Health Laboratories (APHL) and Centers for Disease Control and Prevention (CDC) guidelines. More information can be found at: stacks.cdc.gov/view/cdc/23447

1 THE SCREENING TEST

- Most modern methods test for antigen (Ag) and antibody (Ab)
- Some outdated methods only test for antibodies and may be listed as an enzyme immunoassay (EIA)

If a screening test is reactive, more testing must be done to know someone’s HIV status.

2 SUPPLEMENTARY TESTING

- Modern methods differentiate between HIV-1 and HIV-2 antibodies (answers the question, “Are any HIV antibodies present? If yes, what kind of antibodies?”)
- The Western Blot is an outdated supplementary test that is not recommended for use by the CDC

If a supplementary test is positive for either kind of antibody after a reactive screening test, then the person is HIV positive.

If a supplementary test is negative or indeterminate, more testing must be done to know someone’s HIV status.

3 THE NUCLEIC ACID TEST

- Might appear under several names: HIV-1 RNA qualitative, HIV-1 RNA PCR, or an HIV-1 NAT
- If negative, rules out acute infection in people with a reactive screen but a negative or indeterminate supplementary test

If a NAT is positive after a reactive screen and a negative or indeterminate supplementary test, then the person is acutely infected with HIV.

If a NAT is negative, then the person is HIV negative.

If a client is confirmed to be HIV positive, report the positive results to the Wisconsin AIDS/HIV Program within 72 hours. Case report forms can be found online: https://www.dhs.wisconsin.gov/forms/f4/f44338.docx

To report, call:
Rebecca LeBeau: 608-266-8658
Linda Ziegler: 608-267-6727
Kat Grande: 608-266-2664

QUESTIONS? Call the State of Wisconsin HIV Program Surveillance team.
Katarina Grande 608-266-2664  Rebecca LeBeau 608-266-8658  Linda Ziegler 608-267-6727

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HIV TESTING

ALGORITHM DIAGRAM

**STEP 1**

Screening test (HIV 1-2 Ag/Ab)

- Reactive
  - HIV-1 Ab positive
  - HIV-2 Ab negative/indeterminate
  - **HIV-1 positive**

- Nonreactive
  - HIV negative

**STEP 2**

Supplementary test (HIV 1/2 Ab Differentiation)

- HIV-1 Ab negative/indeterminate
  - HIV-2 Ab negative/indeterminate
  - HIV-1 Ab positive
  - HIV-2 Ab positive
  - **HIV-1 positive**

- HIV-1 Ab negative/indeterminate
  - HIV-2 Ab negative/indeterminate
  - HIV-2 Ab positive
  - **HIV-2 positive**

**STEP 3***

HIV-1 RNA NAT (nucleic acid testing by PCR)

- Positive
  - HIV-1 Ab positive
  - Acute infection
  - HIV-1 positive

- Negative
  - HIV negative

*This test is not always reflexed by laboratory; additional blood draw and physician order may be required.