
Date: December 2, 2011

To: Alberta Health and Wellness, Medical Officers of Health, All Physicians, Alberta MicroNet, Infection Prevention and Control, Laboratory Directors and Managers

From: Provincial Laboratory for Public Health (ProvLab)

Re: Serologic Screening for HIV

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Background:

Traditionally, screening for human immunodeficiency virus (HIV) is done by detecting antibodies against this virus. As HIV screening assays have improved, window periods (time to detection of a positive serological response after the initial infection) have shortened to around 22 days. Earlier this year, ProvLab transitioned to using a screening assay (Abbott Architect HIV) that detects BOTH an HIV antigen, (p24 antigen) and also the HIV antibody. It has been reported this dual assay can shorten the window period further by 5 days.

Why this is important:

All positive HIV screening assays must be confirmed using a confirmatory assay. The only Health Canada approved HIV confirmatory assay currently on the market is the Western Blot (HIV WB) which only detects the antibody and NOT p24 antigen. Consequently a patient with an acute HIV infection who may not have mounted a sufficient antibody response, will test negative by the HIV Western Blot, yet will be positive in the EIA screening assay due to the presence of p24 antigen.

Key Message:

For specimens that have this result profile (Abbott Architect HIV positive, HIV WB negative), laboratory reports will recommend that follow up HIV testing occurs and in addition to collecting serum, an HIV viral load collected on plasma also be requested. This will then be used to confirm the positive EIA result.

Inquiries and requests for testing may be directed to:

Edmonton Site – Phone: 780-407-7121 (ask for Virologist-on-Call)
Calgary Site – Phone: 403-944-1200 (ask for Virologist-on-Call)

For specimen collection information, please refer to the ProvLab Guide to Services at:
<http://www.provlab.ab.ca/guide-to-services.pdf> or <http://www.albertahealthservices.ca/3217.asp>

This bulletin has been reviewed and approved by Dr. Greg Tyrrell, Acting Medical Director of ProvLab