

<b>DATE:</b>	15 October 2024
<b>TO:</b>	All Healthcare Providers, All Zones
<b>FROM:</b>	Alberta Precision Laboratories (APL) – Public Health Laboratory
<b>RE:</b>	<b>Implementation of Qualitative HIV-1 NAT (PCR) Reflex Testing on Serum Samples that Screen Positive for HIV</b>

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## PLEASE POST OR DISTRIBUTE AS WIDELY AS APPROPRIATE

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### Key Message

- On Oct 21, 2024, all serum samples that screen positive for HIV will automatically undergo reflex HIV-1 NAT (PCR) confirmation testing using the Hologic Aptima HIV-1 Quant Dx assay (Hologic Inc., San Diego, CA) on the Panther platform.
- After implementation, all serum samples screening positive for HIV will have a separate report that provides results from both the confirmatory immunochromatographic assay (which detects HIV-1 and HIV-2 antibodies) and the HIV-1 NAT (PCR) reflex test. Appropriate test interpretations and recommendations will be provided within the report.
- These changes were implemented to help improve efficiencies in HIV testing when a serum sample screens HIV positive.
- Further details and interpretations of HIV testing can be found here:  
[https://www.cdc.gov/hiv/pdf/guidelines\\_testing\\_recommendedlabtestingalgorithm.pdf](https://www.cdc.gov/hiv/pdf/guidelines_testing_recommendedlabtestingalgorithm.pdf)

### Background

- Screening for HIV is done using a 4<sup>th</sup> generation HIV test that detects antibodies to HIV-1, HIV-2, and HIV p24 antigen. Currently, serum samples that screen positive for HIV are reflexed to an immunochromatographic assay for the confirmation and differentiation of antibodies to HIV-1 and HIV-2. This process will remain unchanged.
- In many cases, a HIV NAT (PCR) is still required to confirm false positives from the initial HIV screen or to confirm an acute HIV-1 infection. In acute infection, antibodies may not have developed, so the confirmation assay that detects only antibodies is negative.
- Previously, HIV-1 NAT (PCR) testing could not be done on serum samples. As such, patients who screened positive for HIV from serum would need to undergo repeat blood collection to provide the required blood sample (EDTA) that was necessary for HIV-1 NAT (PCR) testing. By implementing HIV-1 NAT (PCR) testing directly on serum, this inconvenient and costly step can be mitigated.
- Routine HIV viral loads will continue to be done from EDTA blood samples using the Abbott m2000 platforms.

### Action Required

- None



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**Inquiries may be directed to**

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**Approved by**

- Dr. Graham Tipples, Provincial Medical Director, Public Health, APL

*Effective September 1, 2023, APL has become the sole provider of all public lab services in Alberta. As a result, community lab services formally provided by DynaLIFE Medical Labs will become the responsibility of Alberta Precision Labs (APL). This change impacts all zones.*