Laboratory Bulletin

Date: **March 2, 2012**

To: **Transplant programs and Transplant Physicians, Infectious Diseases Physicians, Critical Care Physicians, Laboratory Directors and Managers**

From: **Provincial Laboratory for Public Health (ProvLab)**

Re: **CMV Viral Load: Implementation of a New Assay and Reporting in International Units**

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Key Message:

Effective March 12, 2012 , ProvLab will implement a new assay for Cytomegalovirus (CMV) viral load, the RealStar CMV PCR (Altona Diagnostics), which measures the viral load in International Units (IU) per mL. Our evaluation demonstrates an excellent correlation between the RealStar assay and the in-house quantitative PCR assay, with a conversion factor of approximately 9-fold (ie. 1.0 IU/mL = 9.0 copies/mL).

Why this is important:

ProvLab offers an assay to measure the CMV viral load in plasma, an essential tool for the prevention, diagnosis and post-transplant monitoring of CMV opportunistic infections in transplant recipients and other immunodeficient patients. Currently, the CMV viral load is performed at ProvLab using an in-house quantitative PCR, with results expressed in CMV genome copies per mL.

In 2010 the WHO developed an international standard with the expectation to standardize and measure CMV viral load (CMV quantitative assay) in “International Units” (IU) per mL.

In order to facilitate adaptation to the new assay, ProvLab will perform both assays and report both results (CMV viral load in IU /mL and copies/mL) during a transition period of two months until May 7, 2012. Thereafter, the CMV viral load will be reported only in IU / mL using the RealStar CMV PCR.

Reporting in International Units will have several advantages, including conformity to the system of units that is expected to become the standard used by other laboratories and in the scientific literature.

Inquiries and feedback may be directed to:

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- Edmonton Site Virologist on-call at 780-407-7121 or
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This Bulletin has been reviewed and approved by Dr. Marie Louie, Acting Medical Director of ProvLab