



Laboratory Medicine Bulletin

NEW Testing Platform for Cytomegalovirus (CMV) Quantitative Viral Load

May 31, 2017

Effective June 13, 2017, the St. Paul's Hospital Diagnostic Virology and Reference Laboratory (DVRL) will be transitioning from our current laboratory developed CMV quantitative PCR (LDT) to a new commercial assay (Roche cobas® CMV quantitative nucleic acid test). The transition will enable the DVRL to accommodate rising testing volumes and will reduce turn-around times for British Columbia transplant patients.

The new commercial assay has been validated for diagnosis, post-transplant surveillance (pre-emptive strategy) and treatment monitoring of transplant patients with CMV. The specimen of choice for quantitative PCR will continue to be EDTA plasma. However, results will only be reported in International Units (IU/mL); the DVRL will no longer report values in copies/mL.

Quantitative CMV PCR can vary between assays. The DVRL conducted a validation study to compare our existing LDT assay with new commercial assay. This study showed that the new assay reports similar viral load values to the current LDT despite the change in units. As a result, in discussion with British Columbia Transplant (BCT), the Leukemia/Bone Marrow Transplant Program (BMT) and Transplant Infectious Diseases, it was agreed that the current recommended numerical viral load thresholds for diagnosis will be the same but with units changed from copies/mL to IU/mL. **It is always important to monitor the CMV viral load over time and to correlate results with patient symptoms and clinical presentation.**

Please refer to the BCT and BMT clinical care guidelines for further details.

Summary:

- Transition from LDT CMV quantitative PCR to new commercial assay on June 13, 2017
- Results will now only be reported in IU/mL
- BCT will continue to use 1000 IU/mL and 5000 IU/mL as thresholds, and BMT will continue to use 1000 IU/mL (Note unit change from copies/mL to IU/mL)

If you have any questions regarding this transition, please contact the DVRL at (604) 806-8420. For urgent questions on evenings and weekends, please page the Medical Microbiologist on call through the PHC Call Centre.

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