Memorandum

TO: Central Zone and Nova Scotia District Labs, Physicians, Clinics

FROM: Dr. Todd Hatchette / Dr. Jason LeBlanc
Directors, Virology and Immunology Section
Pathology and Laboratory Medicine, Central Zone

DATE: January 04, 2015

RE: **Changes to Testing for Epstein Barr Virus (EBV)**

Epstein-Barr virus (EBV) is the causative agent of infectious mononucleosis, and serology remains the mainstay for diagnosis. Several serological markers are helpful to stage EBV disease (see figure):

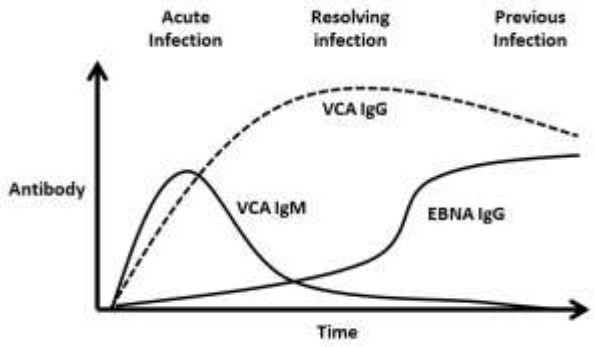
- Viral capsid antigen [VCA] IgM is a marker of acute infection and disappears within 4 to 6 weeks;
- VCA IgG peaks at 2 to 4 weeks after the onset of symptoms and persists for life;
- EBV nuclear antigen-1 [EBNA-1] IgG is a marker of prior infection which appears within 2 to 4 months after infection, and persists for life. Generally, EBNA and VCA IgM should not occur together.

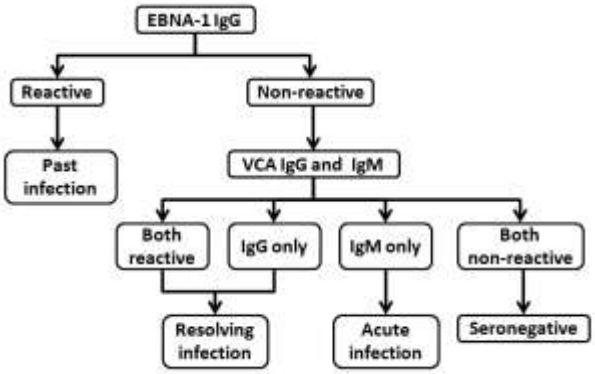
Since the patient population tested at the QEII Microbiology laboratory are primarily adults, most of whom will have had previous infection, an algorithm-based approach for EBV testing will be implemented, decreasing turnaround times and reducing test order errors.

Starting on January 18, 2016, testing for EBV will occur as follows:

- EBNA IgG testing will be performed on all EBV serology requests.
- VCA IgM and IgG testing will only be performed on EBNA-negative specimens.
- Heterophile antibodies (i.e. monospot) testing will be discontinued.
- EBV PCR is only performed for suspect lymphoproliferative syndromes. Contact a microbiologist.
- For other EBV-related illnesses (e.g. Burkitt lymphoma and nasopharyngeal carcinoma), contact pathology.

A summary of the serological profiles and testing algorithm is illustrated below:





If you have any questions, please do not hesitate to contact the laboratory at (473-6881) or Drs. Hatchette (473-6885) or LeBlanc (473-7971).