

Date: October 21, 2010
To: Alberta Health and Wellness, Alberta Micronet, CDC Nurses, Infection Prevention and Control, Laboratory Directors and Managers, Medical Officers of Health, STI Services, Occupational Health, Transplant Services, Emergency Departments and All Physicians
From: ProvLab
Re: Reporting of IgG Antibody Levels to Hepatitis B Surface Antigen and Rubella

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Background:

The Provincial Laboratory for Public Health is changing its serologic testing platforms for hepatitis B and rubella, therefore the reporting of antibody levels to hepatitis B surface antigen (anti-HBs or HBsAb) and rubella IgG, is being aligned with the reporting format of other clinical diagnostic laboratories.

Process Change:

Results will no longer be reported as positive, negative or indeterminate.

Effective November 2, 2010, antibody levels to hepatitis B and rubella will be reported with a value and a comment indicating the threshold level of immunity:

¹Rubella IgG antibody (values will be reported in IU/mL):

- Values of 15 IU/mL and greater are indicative of immunity, values between 10 to 15 IU/mL are indeterminate and these individuals should be considered non-immune.

²Antibody to hepatitis B surface antigen (values will be reported in IU/L):

- Values of 10 IU/L and greater are generally considered protective

Limitations:

Variation in antibody levels in a single serum sample, tested on analyzers and kits from different manufacturers has been reported, despite standardization.

Individuals with antibody levels close to the immunity threshold will often show variation above and below this threshold in a short time span due to the biologic fluctuation of antibody production and variability between different assays. However, in cases where the individual was reported with high antibody levels from one lab and negative from another in a short time span (generally within 2 weeks), retesting is recommended.

Questions & Comments:

Edmonton Site – Ph: 780-407-7121 (ask for Virologist-on-Call)

Calgary Site – Ph: 403-944-1200 (ask for Virologist-on-Call)

References:

¹Skendzel LP (1996) Am J Clin Pathol 106(2):170-174

²Jack AD et al (1999) J Infect Dis 179:489-492

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