



LABORATORY BULLETIN

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To: All Health Professionals – Alberta, Northwest Territories, Nunavut

Re: New Syphilis Serology Tests

PLEASE POST OR DISTRIBUTE WIDELY AS APPROPRIATE

In response to the syphilis outbreak in Alberta, as defined by the Provincial Health Officer, ProvLab, in collaboration with regional diagnostic laboratories, will be implementing new serological test methods for the diagnosis of **syphilis**, effective **September 4th, 2007**.

The treponema-specific enzyme immunoassay (EIA) is the cornerstone of the new testing. Syphilis EIA is similar to the existing TPPA and FTA tests, and detects IgM and IgG antibodies against *Treponema pallidum* but with higher sensitivity and specificity. EIA-positive sera will be tested by the Rapid Plasma Reagin test (RPR) at ProvLab. RPR will be used to monitor response to therapy (falling titres) and to detect re-infection (rising titres).

For syphilis serology, please collect 5-10 mL of venous blood in a gold-top serum separator tube, and request "syphilis" on the requisition. Prenatal screening will also be performed by EIA. Positive results will be reported to public health, who will follow up with the ordering physician to get clinical details.

EIA will detect cases earlier, and will detect more latent cases. There will also be a decrease in false positive results. As with previous tests, the new syphilis serology EIA will not differentiate between primary, secondary, latent and tertiary syphilis, nor will it differentiate treated, cured disease from active disease. These are determined clinically. Serology also cannot differentiate between syphilis and yaws, pinta or bejel. Clinical review, including a thorough sexual and travel history is required. In incubating or early primary syphilis, an antibody response may not yet be present, therefore such cases should be retested in 4 weeks. Syphilis requests on cerebrospinal fluid will continue to be tested by VDRL.

We anticipate that the new syphilis serology process will produce rapid and accurate results, to assist in earlier detection and treatment of cases, and prevent further spread. Questions? Call us at the numbers below or contact the Virologist-on-call or Microbiologist-on-call via:

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|------------------|----------------|-----------------|----------------|
| CLS | (403) 770-3757 | DKML | (780) 451-3702 |
| ProvLab Edmonton | (780) 407-7121 | ProvLab Calgary | (403) 944-1200 |

Further details will be posted to the ProvLab website:

<http://www.provlab.ab.ca/education.htm> .

Sincerely,



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