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LABORATORY COMMUNICATION

Changes to Immunoglobulin E (IgE) Testing at HSC Clinical Chemistry

Effective June 26th 2012

In Manitoba, total IgE testing is currently performed at HSC Clinical Chemistry using ImmunoCAP methodology on the Phadia® 100 and at Westman Laboratory in Brandon which uses the Roche cobas® IgE test since May 2010. The Phadia® 100 instrument also used for all specific IgE testing performed in Manitoba (apart from less frequent allergen requests which are sent to Mayo Medical Lab) is reaching the end of its lifespan, evidenced by increased malfunction history and downtime. This situation will be resolved in 2012 by the introduction of the 4th generation Phadia® 250 instrument with improved automation, turn-around-time and testing capacity.

To standardize IgE testing between the two sites, effective June 26th HSC will transfer total IgE testing to the Roche cobas®; results will be 10-20% higher compared to previous ImmunoCAP values. A review of published IgE reference range intervals from the past 5 years indicated that Roche method ranges were in good agreement with other sources (*old and new reference ranges are shown in the table below*). In clinically healthy subjects the serum IgE levels exhibit a wide distribution range and do not follow a normal distribution. Serum IgE concentrations in children are highly dependent on age. Adult values are achieved by 7-10 years with higher values at about 10-15 years of age. Serum concentration of up to 100 IU/mL in adults can be considered the upper limit of the reference range. Moderately elevated levels of Total Serum IgE (>100 kU/L) tend to be found more commonly in atopic patients, although lower levels do not exclude atopic illnesses. Markedly elevated levels may be found in patients with atopic eczema, allergic broncopulmonary aspergillosis, parasitic infestation and hyper-IgE syndrome. Reference Range changes are shown below:

Age (years)	Current IgE Ref. Ranges (Phadia® ImmunoCAP) kU/L	Age (years)	New IgE Ref. Ranges (Roche cobas®) IU/mL
< 1	0 – 15	< 1	0 – 15
1 - 2	0 – 29		
2 - 3	0 - 17	1 - 5	0 - 60
3 - 4	1 - 69		
5 - 7	1 - 161	6 - 9	0 - 90
8 - 10	1 - 570		
11 - 14	2 - 195	10 - 15	0 - 200
>15	2 - 120	>16	0 - 100

Total IgE test availability will now be daily; all other test service aspects **remain unchanged**.

For follow-up enquiries or further information please contact:

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