



Laboratory Medicine Bulletin

New Method for IGF-1 Testing

July 15, 2019

Starting August 12, 2019, St Paul's Hospital Laboratory will switch test platforms for IGF-1 testing from the IDS-iSYS® to the Roche Cobas® e601. This change will allow testing to be performed daily, Mon-Fri and improve turn around times.

The reference intervals for this test will be modified to reflect this method change. The new reference intervals are attached. These reference intervals have been consolidated across some age ranges based on available evidence.

Physicians who are following patients with acromegaly for purposes of disease monitoring or titrating of medication should consider establishing a new baseline with the new method. The Roche Cobas method reads up to 50% lower in the low range (<50 µg/L) and up to 30% higher in the high range (>1000 ug/L) than the previous iSYS method, while results in the range 100-500 µg/L compare well between the methods.

Like many other tests performed on the Roche Cobas platform, the new IGF-1 method carries the theoretical risk of biotin interferences if the patient is taking extremely large (>1g/day) doses of biotin. This effect can be avoided by holding doses of biotin within 6 hours of testing.

For any questions or concerns, please contact Dr. Janet Simons at 604-806-8193.



Janet Simons, MD FRCPC
Medical Biochemist, St. Paul's Hospital
janet.simons@providencehealth.bc.ca



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New Reference Intervals for IGF-1

Updated reference intervals for IGF-1 testing effective as of August 12, 2019:

| Age | Male Reference Range (ug/L) | Female Reference Range (ug/L) |
|-----------------|--------------------------------|----------------------------------|
| <1 year | 12-95 | 15-90 |
| 1 yr to <2 yr | 12-95 | 19-105 |
| 2 yr to <3 yr | 14-105 | 26-128 |
| 3 yr to <4 yr | 19-116 | 35-155 |
| 4 yr to <5 yr | 27-134 | 43-185 |
| 5 yr to <6 yr | 36-156 | 53-216 |
| 6 yr to <7 yr | 47-184 | 63-250 |
| 7 yr to <8 yr | 57-216 | 75-286 |
| 8 yr to <9 yr | 67-254 | 87-324 |
| 9 yr to <10 yr | 77-296 | 100-363 |
| 10 yr to <11 yr | 86-343 | 112-398 |
| 11 yr to <12 yr | 94-392 | 123-427 |
| 12 yr to <13 yr | 101-434 | 132-451 |
| 13 yr to <14 yr | 108-467 | 140-468 |
| 14 yr to <15 yr | 115-489 | 146-480 |
| 15 yr to <16 yr | 120-500 | 150-485 |
| 16 yr to <19 yr | 125-500 | 155-485 |
| 19 yr to <22 yr | 135-450 | 150-450 |
| 22 yr to <25 yr | 135-370 | 140-390 |
| 25 yr to <28 yr | 130-300 | 125-340 |
| 28 yr to <30 yr | 120-270 | 115-300 |
| 30 yr to <40 yr | 100-250 | 100-280 |
| 40 yr to <50 yr | 85-220 | 80-225 |
| 50 yr to <60 yr | 65-200 | 70-210 |
| 60 yr to <70 yr | 55-190 | 55-190 |
| ≥ 70 yr | 50-185 | 55-165 |