Laboratory Medicine Bulletin

NEW GROWTH HORMONE (GH) TEST

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On July 26 2016, analysis of growth hormone (GH) at the Providence Health Care laboratories will transition from the Siemens IMMULITE® 2000 platform to the Roche Cobas ® e601 instrument. The Roche GH method is standardized against the second World Health Organization (WHO) internal standard (IS) 98/574.

Reference ranges will be updated as follows:

Age (Years)	Male (µg/L)	Female (µg/L)
0 to <11	<6.30	<7.80
11 to <18	<10.81	<8.06
≥18	<2.48	<9.89

It should be noted that random levels are generally not advised in the evaluation of GH disorders. Rather, dynamic testing and insulin-like growth factor 1 (IGF-1) measurements are recommended.

Interpretation of GH dynamic tests:

Suppression Test (75 g oral glucose load)

Nadir GH (µg/L)	Interpretation
>1.0	Inadequate suppression, suggestive of autonomous GH production
0.5 to 1.0	Indeterminate
<0.5	Adequate suppression

Stimulation Test

Stimulus	GH Threshold (µg/L)	Interpretation
Insulin	3.6	*Above threshold*: adequate response
Glucagon	2.1	
Pediatric (various stimuli)	5.6	*Below threshold*: impaired response, suggestive of GH deficiency

All GH provocative test results will continue to be reported with an interpretative comment.

Should you have any questions, please do not hesitate to contact me.

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