

Date: October 19, 2012
To: All Zones: Physicians, Nurse Practitioners, Nursing Units, Nutrition and Food Services, Laboratories
From: AHS Laboratory Services
Re: Standardization of Glucose Reference Intervals and Critical Values

PLEASE POST OR DISTRIBUTE AS WIDELY AS APPROPRIATE

Key Messages:

Effective November 1, 2012, glucose reference intervals and critical values in Alberta will be standardized to reflect the Canadian Diabetes Association 2008 Clinical Practice Guidelines (<http://www.diabetes.ca/for-professionals/resources/2008-cpg/>).

On this date, 2 hour post cibum (PC) glucose will no longer be available. If a patient presents with a 2 hour PC test request, a random glucose will be substituted.

Why this is important:

Using the correct reference interval is required for effective diagnosis and treatment of patients. The reference interval information will be indicated on the report along with the patient sample value.

Action Required:

Please refer to the following reference intervals for fasting and random glucose results.

| Fasting Glucose | |
|----------------------|--------------------|
| Age | Reference Interval |
| Less than 30 days | 2.5 – 5.5 mmol/L |
| 30 days to 150 years | 3.3 – 6.0 mmol/L |

| Random Glucose | |
|----------------------|--------------------|
| Age | Reference Interval |
| Less than 30 days | 2.5 – 11.0 mmol/L |
| 30 days to 150 years | 3.3 – 11.0 mmol/L |

When a random glucose is greater than 11.0 mmol/L, the following comment will be appended:

- A random glucose concentration of greater than or equal to 11.1 mmol/L plus symptoms of disease meets one of the diagnostic criteria for Diabetes Mellitus. Canadian Diabetes Guidelines (2008)

| Glucose Critical Values | | |
|-------------------------|----------------------|--------------------------|
| Age | Critical Low | Critical High |
| Less than 30 days | Less than 2.0 mmol/L | Greater than 24.9 mmol/L |
| 30 days to 150 years | Less than 2.6 mmol/L | |

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