Lab Dept: Chemistry

Test Name: GLUCOSE

General Information

Lab Order Codes: GLUC
Note: Test is also included in the Basic Metabolic Panel (PR7), Comprehensive Metabolic Panel (PR12) and Renal Panel (RENP).

Synonyms: Fasting Blood Sugar

CPT Codes: 82947 – Glucose; quantitative, blood

Test Includes: Glucose concentration reported in mg/dL.

Logistics

Test Indications: Glucose is derived from the breakdown of carbohydrates in the diet and in the body stores. The glucose level in the blood is maintained within a narrow range by regulatory hormones such as insulin, glucagons, or epinephrine. The most frequently encountered disorder of carbohydrate metabolism is high blood sugar due to diabetes mellitus. Hypoglycemia is a blood glucose concentration below the fasting level.

Lab Testing Sections: Chemistry

Phone Numbers: MIN Lab: 612-813-6280
STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 30 minutes

Special Instructions: N/A

Specimen

Specimen Type: Blood

Container: Green top (Li Heparin) tube preferred
Alternate tube: Red, marble or gold top tube

Draw Volume: 0.6 mL blood
Processed Volume: 0.2 mL serum/plasma

Collection: Routine collection. Mix tubes containing anticoagulant by gentle inversion.

Special Processing: Lab Staff: Centrifuge specimen, remove serum/plasma aliquot into a plastic sample cup. Store at refrigerated temperatures.

Patient Preparation: None

Sample Rejection: Mislabeled or unlabeled specimen

**Interpretive**

<table>
<thead>
<tr>
<th>Reference Range:</th>
<th>Age</th>
<th>Range (mg/dL)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Newborn:</td>
<td>60 – 90 mg/dL</td>
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<tr>
<td></td>
<td>1 month – 12 years:</td>
<td>60 – 105 mg/dL</td>
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<tr>
<td></td>
<td>&gt;12 years:</td>
<td>70 – 100 mg/dL</td>
</tr>
</tbody>
</table>

Critical Values: All ages: <50 or >300 mg/dL

Limitations: Glucose concentrations are decreased by excess hemolysis, excess bilirubin and excess lipemia.

Methodology: Hexokinase Ultraviolet (UV)

References:
- GLUC Flex® reagent cartridge insert sheet PN 717040.001 (Issue Date 2008-02-29) Rev C
- Clinical Significance, Dade Behring Inc., Glasgow Business Community, Mailbox 531, P.O. Box 6101, Newark, Delaware 19714
- Biorad Liquichek Control Product inserts, Bio-Rad Laboratories, Irvine, CA 92618

Updates:
- 2/17/2005: Critical value for Newborns <40 or >160 mg/dL removed. Critical value range made consistent for all ages.
- 8/28/2005: Turnaround time previously listed changed from 4 hours to 2 hours.
- 8/19/2009: Turnaround time previously listed as 2 hours.
- 2/8/2016: Update alt tube types