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**Lab Dept:** Chemistry

**Test Name:** HEMOGLOBIN A1C

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***General Information***

**Lab Order Codes:** HBA1C

**Synonyms:** Glycated Hemoglobin, Glyco-Hgb; Hgb A1c

**CPT Codes:** 83036 – Hemoglobin; glycated

**Test Includes:** Hemoglobin A1c concentration reported as a % of total hemoglobin.

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***Logistics***

**Test Indications:** The measurement of hemoglobin A1c concentration is recommended for monitoring the long-term care of diabetes. The level of Hgb A1c is proportional to the level of glucose in the blood over a period of approximately 2 months.

**Lab Testing Sections:** Chemistry

**Phone Numbers:** MIN Lab: 612-813-6280

STP Lab: 651-220-6550

**Test Availability:** Daily, 24 hours

**Turnaround Time:** 2 hours, test performed daily

**Special Instructions:** N/A

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***Specimen***

**Specimen Type:** Whole blood

**Container:** Lavender top (EDTA) tube

**Draw Volume:** 0.5 mL blood in EDTA tube

**Processed Volume:** 0.001 mL blood

**Collection:** Routine venipuncture **preferred**

Alternate sample: capillary puncture

**Special Processing:** Lab Staff: **Do not** centrifuge. Samples of 200-600uL must use the conical bottom tubes; samples >600uL may be tested directly from the vacutainer tube.

EDTA preserved whole blood samples are stable at room temperature up to 8 hours. Whole blood samples are stable at 2-8C up to 7 days.

**Patient Preparation:** None

**Sample Rejection:** Clotted specimen; mislabeled or unlabeled specimen

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***Interpretive***

**Reference Range:** A1c Diagnostic:  
<5.6% Normal  
5.7-6.4% At risk for diabetes mellitus  
>6.5% Suitable for diagnosis of diabetes mellitus

A1c Monitoring: Goals must be individualized and reassessed over time. An A1c of <7% is appropriate for many children and adolescents.

**Critical Values:** N/A

**Limitations:** Blood transfusions may impact the HbA1c concentration in the patient sample.

**Methodology:** Enzymatic

**Contraindications:** Patients with >5% Hgb F will have lower than expected Hgb A1c results.

**References:** Alinity c Hemoglobin A1C Reagent Kit Package Insert, REF 08P4320, Abbott Laboratories Diagnostics Division, Abbott Park, IL 60064, March 2022 2.

American Diabetes Association. Standards of Care in Diabetes – 2024. S20-S42, S263 3.

Rifai, Tietz Textbook of Clinical Chemistry and Molecular Diagnostics, 6th Edition, Elsevier, AACC, 2018

**Updates:** 6/11/2024: New Methodology