



# MEMORANDUM

**TO:** Regional Medical Laboratory Clients

**FROM:** Lawrence Johnson, M.D., FACP, Chief of Hematology and Flow Cytometry  
Jennifer Starks, MT(ASCP), Section Manager

**DATE:** September 30, 2013

**SUBJECT:** Hemoglobin A1C Reference Range Change

Test Name: A1C HPLC  
CPT Code: 83036

Beginning on September 23, 2013, Regional Medical Laboratory (RML) will adopt new reference ranges for hemoglobin A1C testing as recommended in the American Diabetes Association Standard of Care. The following interpretive data for hemoglobin A1C test results will be published on our website at [www.RMLonline.com](http://www.RMLonline.com).

**Previous reference range: 4.0 – 6.1%.**  
**New reference range: 4.0 – 5.6%.**

### Interpretive Data

- $\leq$  5.6% Low risk for development of diabetes
- 5.7 – 6.4% Increased Risk for development of diabetes
- $\geq$  6.5% Consistent with diabetes

Also, RML is going to use a different calculation for Mean Plasma Glucose to be reported with Hemoglobin A1C results. The new calculation is from The International A1C-Derived Average Glucose (ADAG) Study which includes a larger pool of data that provides a more refined and accurate formula describing a linear relationship between A1C and average glucose level.

The formula describing this relationship is:  $(28.7 \times \text{A1C}) - 46.7 = \text{Mean Plasma Glucose}$

A1C	Previous Mean Plasma Glucose	New Mean Plasma Glucose
5%	101 mg/dL	97 mg/dL
7%	172 mg/dL	154 mg/dL
10%	279 mg/dL	240 mg/dL
13%	386 mg/dL	326 mg/dL

If you have any questions regarding this change please contact Dr. Lawrence Johnson at (918) 744-2553 or Jennifer Starks, MT (ASCP) at (918) 744-2500 or 1-800-722-8077 or email [lrjohnson@sjmc.org](mailto:lrjohnson@sjmc.org) or [jennifer.starks@sjmc.org](mailto:jennifer.starks@sjmc.org).