

Method Change for Hemoglobin A1c

This week, we changed the method that we use for measurement of hemoglobin A1c (A1c) from immunoassay to capillary zone electrophoresis.

This important test is used to monitor glycemic control in patients with diabetes mellitus. A1c (expressed as a percentage of the total hemoglobin) represents the average glucose level in the patient's blood over the past several months. Recently, the American Diabetes Association has also recommended that A1c be used to diagnose diabetes mellitus. Levels greater than 6.5% indicate the presence of the disorder; levels between 5.7-6.5% indicate risk of developing diabetes in the near future.

The use of capillary zone electrophoresis (CZE) allows us to measure A1c much more accurately and precisely. The reagent cost is significantly less than immunoassay. CZE instrument also samples the whole blood specimen directly from the primary tube using a cap piercer, which reduces labor. Finally, although we verified that the immunoassay method accurately measured A1c in patients with a variety of abnormal hemoglobins when we implemented it several years ago, CZE will allow us to identify these patients.

Please contact Dr. Jim Faix at 650-736-1857 or jfaix@stanfordmed.org if you have any questions or concerns about this change.