

## **Coding Glycosylated Hemoglobin (A1c) and Hemoglobin Variants by HPLC**

CPT code 83036 (Hemoglobin; glycosylated (A1c)) is typically used to report HbA1c independent of the method used when a single quantitative result is obtained. However, there is currently no analyte specific code for reporting HbA1c when a hemoglobin variant or HbF is present. It is important to identify the presence of a hemoglobin variant in a sample to be tested for HbA1c since the variant may have decreased red cell survival, increase turnover or reduced expression which may affect the HbA1c value. The presence of HbF can compromise HbA1c results by immunoassay methods providing misleading HbA1c results to the physician.

When no analyte-specific code exists, the most similar code or a code describing the method employed may be reported. In this case, since the method is ion-exchange HPLC, the most appropriate code would be:

83021 Hemoglobin, fractionation and quantitation; chromatography (A2c, Sc, Cc, or Fc)

Even though glycosylated hemoglobin A1c is also measured, it would not be appropriate to list 83036 as well since the above code includes tentative identification of the hemoglobin variant (if present) and the detection of the presence of increased HbF levels.

Since the Medicare reimbursement for CPT code 83021 is more than for 83036, there is always a small risk that a payer might consider the choice of 83021 over 83036 to be upcoding in order to achieve a higher reimbursement. Consequently, each provider must exercise their own judgment in choosing how to code glycosylated hemoglobin variants.

When performing glycosylated hemoglobin variants by ion-exchange HPLC, the following rules apply:

1. The test should be described as glycosylated hemoglobin in the presence of Hb variants or HbF to differentiate the test from total glycosylated hemoglobin (A1c). If both tests are offered, both should be listed on the lab requisition.

For example:

- Hemoglobin, glycosylated (A1c) (CPT code 83036)
- Glycosylated hemoglobin in the presence of Hb variants or HbF (CPT code 83021)

2. If Hemoglobin A1c alone is ordered, CPT code 83036 should be used to report the test even if the A1c is determined by ion-exchange HPLC. This code is specific for measurement of total Hb A1c by any method including HPLC.

3. There should be a reasonable expectation, for medical necessity, that the patient have a hemoglobin variant or elevated HbF for the test to be covered by Medicare and other payers. It is generally medically necessary to perform this assay only one time to confirm the absence or presence of Hb variants or elevated levels of HbF. Subsequent monitoring of A1c by ion-exchange HPLC should be reported using CPT code 83036 since this is the only medically necessary analyte.