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 COMMENTS AND  
 RESPONSES
 

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**Comment on: Selvin et al. No Racial Differences in the Association of Glycated Hemoglobin With Kidney Disease and Cardiovascular Outcomes. Diabetes Care 2013;36:2995-3001**

Selvin et al. (1) add their contribution to the existing extensive evidence of ethnic and racial differences in hemoglobin glycation that compares, in part, non-Hispanic whites with African Americans in the Diabetes Prevention Program (2), Europid with Inuit in Denmark (3), and Africans from Rodrigues with South Asians, Chinese, and Africans from the main island of Mauritius (4). HbA<sub>1c</sub> use as a diagnostic test for diabetes, then, would be expected to lead to more false-positive results for the latter groups in each of these comparisons (5).

Selvin et al. have examined the effect of race on the utility of HbA<sub>1c</sub> to predict renal and cardiovascular complications during 18 years of follow-up in the Atherosclerosis Risk in Communities (ARIC) study and purport to show that a similar interpretation of HbA<sub>1c</sub> in blacks and whites can be made for the diagnosis

and treatment of diabetes. We suspect that that the data from their study actually indicates the opposite. No one could be surprised that, as they show, increasing HbA<sub>1c</sub> is associated with increasing complication risk in both blacks and whites. The nub of the issue is whether blacks have a different risk of complications than whites at the same HbA<sub>1c</sub>. This is difficult to ascertain among black subjects with HbA<sub>1c</sub>  $\geq$  6.5% (48 mmol/mol), whose HbA<sub>1c</sub> was  $7.4 \pm 1.5\%$  (see Table 1 in Selvin et al. [1]). In the more clearly defined 5.7–6.4% (39–47 mmol/mol) range, however, Table 2 in ref. 1 shows that for the seven outcomes examined (chronic kidney disease, fatal or nonfatal myocardial infarction, ischemic or any stroke, heart failure, or all-cause mortality), the hazard ratio (HR) for the increase in risk was considerably lower in blacks than for whites. Indeed, having an HbA<sub>1c</sub> within this range, compared with being  $<5.7\%$ , was associated with a statistically significant increase in every one of these complications among whites but only one of the seven complications among black participants. Even Selvin et al. agree that these differences extend to the ultimate clinical outcome of mortality. Compared with HbA<sub>1c</sub>  $<5.7\%$ , mortality increased with HbA<sub>1c</sub> 5.7–6.4% significantly among whites (HR 1.49 [95% CI 1.33–1.68]), but nonsignificantly among blacks (1.11 [0.93–1.33]).

We wonder, then, whether the article might better be titled “Racial Differences Exist in the Association of Glycated Hemoglobin With Kidney Disease, Cardiovascular Outcomes, and Mortality.”

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