

Data were included if the baseline A1C (collected the day of the consult or within 90 days prior) was  $\geq 8.0\%$ , and at least one subsequent A1C, performed after 3 months, was measured. A third A1C was collected in patients who had been seen for  $\geq 6$  months at the time of data collection. The mean  $\pm$  SD A1C was calculated for each of the three time points, and a *t* test was performed to determine statistical significance between levels.

A total of 96 patients met the entry criteria. Of these, 54 (56%) had a third data point. The remainder had not yet been followed long enough at the time of data collection ( $n = 32$ ) or did not adhere to follow up ( $n = 9$ ). The mean A1C at entry was  $10.36 \pm 1.66\%$ . The mean first and second follow-up A1C levels were  $8.06 \pm 1.68$  and  $7.68 \pm 1.38\%$ , respectively. Changes from entry to first and second A1C were both statistically significant ( $P < 0.001$ ). Seventy-four percent of patients at first follow-up A1C and 80% at the second demonstrated an A1C decline of  $\geq 1\%$ .

In this brief observation, the majority of patients who were referred for endocrine consultation to evaluate and treat poor diabetes control showed clinically meaningful improvements in A1C. In evaluating quality of care, the DPRP looks at a cross section of randomly chosen patients. In a consultation practice, the diabetes specialist may accumulate many poorly controlled patients. Therefore, the impression is that quality of care is poor. Moreover, provider recognition may be less likely under the current scoring system. Yet, the DCCT demonstrated that reductions in microvascular complications, in particular retinopathy, can be seen with sustained A1C reductions even if the target of  $< 7\%$  is not achieved (5). Change in A1C may be a useful marker for quality of care given by diabetes consultants and can be used as an adjunct to the current DPRP standards, especially if longer-term data are used.

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## References

1. Diabetes Physician Recognition Program [article online], 1997. Available from [www.NCQA.org/dprp/](http://www.NCQA.org/dprp/)
2. Smith JJ: NCQA/HEDIS guidelines for diabetes. *Manag Care* 10 (Suppl. 2):3–5, 2001
3. American Diabetes Association: Standards of medical care in diabetes (Position Statement). *Diabetes Care* 28:S4–S36, 2005
4. American Diabetes Association: Standards of medical care for patients with diabetes mellitus (Position Statement). *Diabetes Care* 24:S33–S43, 2001
5. The Diabetes Control and Complications Trial Research Group: The effect of intensive treatment of diabetes on the development and progression of long-term complications in insulin-dependent diabetes mellitus. *N Engl J Med* 329:977–986, 1993

## Change in HbA<sub>1c</sub> as a Measure of Quality of Diabetes Care

### Response to Spitz

**W**e thank Dr. Spitz (1) for his letter commenting on the Diabetes Physician Recognition Program (DPRP) criteria regarding HbA<sub>1c</sub> (A1C) levels. The DPRP criteria were changed in 2000 to coincide with those used in the Health Plan Employer Data and Information Set (HEDIS) program. More recently in 2004, a decision was made to include two measures for A1C, LDL, and blood pressure. In the case of LDL, the change reflected the HEDIS measure, National Cholesterol Education Program guidelines, and the American Diabetes Association recommendation. In the case of A1C and blood pressure, changes were based on current American Diabetes Association recommendations. Using two measures (which some refer to as good and poor control) allows a more comprehensive assessment of how well a group of patients is doing as this approach encourages both attention to persons in relatively poor control as well as allowing ongoing assessment of how the provider is doing in regard to meeting the stated guideline. For example, if only “% of patients with A1C  $> 9\%$ ” were used, movement of patients from 9.1 to 8.9% would yield significant improvement, yet most would argue that little had changed. Using mea-

asures of “%  $> 9\%$ ” and “%  $< 7\%$ ”, however, would show that little had changed. If patients were moved from an A1C of 9.1 to 6.9%, using only the 9% measure would yield the same results as in the first case, but using both measures the rather significant change would be clearly indicated. Using both measures allows one to see continuing improvement over time as the “%  $> 9\%$ ” should continue to decrease and the “%  $< 7\%$ ” should continue to increase.

Dr. Spitz suggests that it would be useful (and more fair to those who are referred patients who are not doing well in regard to A1C) to add a measure based on improvement in A1C. The suggestion is well worth considering and has been reviewed in the past by experts in both diabetes as well as measurement. One obvious problem in having a change in A1C measure is that doctors caring for patients who are at goal would appear to not be doing well using this measure, as no improvement would be needed or likely seen. As well, the goal of using measures to document how a population of patients is doing over time would not be part of this metric. Simply awarding points for A1C improvement would create some potential unfairness as well, as it is generally much easier to get a patient doing poorly to reduce his/her A1C 1% (from 10 to 9%, for example) than a patient doing relatively well (to reduce the A1C from 8 to 7%). Secondly, all A1C improvements are not equal in regards to clinical benefit, as an improvement of 1% in A1C offers a different benefit if the change is from 7 to 6% vs. 12 to 11%, for example. Finally there is the problem of setting the time frame for the change and having to review charts for multiple values, not just the most recent.

Dr. Spitz is of course correct that any improvement in A1C is a positive change. The data he cites for his practice are very impressive in regards to the reduction in A1C levels he has achieved. We feel that the current measures, used accurately, fairly capture this aspect of diabetes care, and adding a new measure for A1C change is not likely to add substantial new information to the program. However, we feel it is worthwhile to bring this to the current DPRP advisory committee for discussion at their next meeting.

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## References

1. Spitz AF, Kanani H: Change in HbA<sub>1c</sub> as a measure of quality of diabetes care (Letter). *Diabetes Care* 29:1183–1184, 2006

## Proposal for the Reconsideration of the Definition of Gestational Diabetes

### Response to Omori and Jovanovic

I read with interest the letter by Omori and Jovanovic (1) in the October 2005 issue of *Diabetes Care* and have the following comments.

In the Clinical Practice Recommendations from 2002 to 2005 (2–5), you will find the following statements.

“A fasting plasma glucose level >126 mg/dl (7.0 mmol/l) or a casual plasma glucose level >200 mg/dl (11.1 mmol/l) meets the threshold for the diagnosis of diabetes, if confirmed on a subsequent day, and precludes the need for any glucose challenge.”

Although these two patient populations (i.e., patients with gestational diabetes mellitus [GDM] and patients with diabetes diagnosed during pregnancy) were not formally separated in relation to patient outcome or risk of congenital malformations, we, in our institution, have adopted the policy of labeling these pregnant women, who have blood glucose levels in the diabetic range, as “diabetic patients first discovered during pregnancy.” This labeling would be even further substantiated if the index case was discovered during the first trimester.

The second point is the surprising finding in the Japanese study of having the highest frequency of both GDM and type 2 diabetes in the first trimester and the lowest in the third trimester, which is against the classical teaching and against the fact that insulin resistance, and consequently the frequency and incidence of

GDM, is highest in the third trimester. This reversed incidence of GDM in different trimesters of pregnancy needs to be further analyzed and explained.

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## References

1. Omori Y, Jovanovic L: Proposal for the reconsideration of the definition of gestational diabetes (Letter). *Diabetes Care* 28: 2592–2593, 2005
2. American Diabetes Association: Gestational diabetes mellitus (Position Statement). *Diabetes Care* 25 (Suppl. 1):S94–S96, 2002
3. American Diabetes Association: Gestational diabetes mellitus (Position Statement). *Diabetes Care* 26 (Suppl. 1):S103–S105, 2003
4. American Diabetes Association: Gestational diabetes mellitus (Position Statement). *Diabetes Care* 27 (Suppl. 1):S88–S90, 2004
5. American Diabetes Association: Standards of medical care in diabetes (Position Statement). *Diabetes Care* 28 (Suppl. 1): S4–S36, 2005

## Proposal for the Reconsideration of the Definition of Gestational Diabetes

### Response to Dawood

We thank Dawood for his comments (1) concerning our letter (2), in which we reported the results of our two populations (from Japan and California). Our results underscore the need for a unique diagnosis for those women with moderate to severe hyperglycemia and/or other evidence of longstanding diabetes complications, and thus the label of gestational diabetes mellitus (GDM) is not adequate to identify the urgent need for more intensive surveillance and treatment than would other-

wise be available for gestational diabetic women.

Dawood is correct; the American Diabetes Association (ADA) would not label our cohorts as having “type 2 diabetes” because their blood glucose concentrations did not reach the criteria of the ADA guidelines or position statements. The point is that regardless of whether these pregnant women are called type 2 diabetic women or, as Dawood suggests, “diabetic patients first discovered during pregnancy,” it is a matter of semantics. The bottom line is that these women would receive better care if they were not thought to have merely GDM. It is time to reconsider the definition of GDM.

Dawood’s second question was related to our lowest prevalence of GDM in the third trimester (first trimester: 33 of 250 [13.2%]; second trimester: 32 of 417 [7.7%]; and third trimester: 37 of 749 [4.9%]). In our Japanese cohort, our observation is based on the protocol that administers the oral glucose tolerance test in only those pregnant women with risk factors, not the population of pregnant women in general without risk factors for diabetes. The risk factors for diabetes have the highest likelihood of identifying those women who have diabetes already in the first trimester. The third-trimester increase in prevalence of GDM that Dawood questions only occurs in women without risk factors, when the pregnancy per se has the strongest impact on glucose intolerance, not age, obesity, history of glycosuria, glucose intolerance, hypertension, or delivery of a previous infant with macrosomia.

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## References

1. Dawood NS: Proposal for the reconsideration of the definition of gestational diabetes (Letter). *Diabetes Care* 29:1185, 2006
2. Omori Y, Jovanovic L: Proposal for the reconsideration of the definition of gestational diabetes (Letter). *Diabetes Care* 28: 2592–2593, 2005