

Who Should Receive Optimal Diabetes Care?

TO THE EDITORS:

Pogach et al¹ recommend against the use of glycosylated hemoglobin (A1C) of less than 7% as a diabetes quality measure. Hayward's accompanying editorial labels all-or-none treatment targets bad performance measures.² However, Minnesota's multi-year real-world experience reporting Optimal Diabetes Care, a measure that incorporates multiple all-or-none treatment thresholds, differs from these opinions.

HealthPartners, a large Minnesota health plan, publicly reports comparative provider group performance on a composite All-or-None Optimal Diabetes Care measure.³ In addition to A1C of less than 7.0%, the measure also requires a low-density lipoprotein cholesterol (LDL-C) level of less than 100 mg/dL, blood pressure (BP) less than 130/80 mm Hg, daily aspirin prophylaxis, and confirmed nonsmoking status. Denominator exclusions are limited to those currently allowed by Health Plan Employer Data and Information Set specifications.

Minnesota Community Measurement reports the same measure using all payer data at www.mnhealthcare.org, and Fairview University Clinics recently began reporting individual clinic Optimal Diabetes Care rates at http://www.fairview.org/patient_safety/. More than 40% of patients with diabetes cared for by Fairview's highest performing clinics achieve all cardiovascular risk reduction targets.

Optimal Diabetes Care and component rates are improving. Between 2001 and 2005, HealthPartners' A1C <7.0% rate increased from 42% to 50%, LDL-C <100 mg/dL increased from 32% to 57%, BP <130/80 mm Hg increased from 31% to 43%, and aspirin chemoprophylaxis increased from 52% to 77% with no indication that improvement is leveling off.

Concurrent with improved Optimal Diabetes Care, preventable complications are down. HealthPartners 2005 amputation rate is 3 per 1000, declining from 11 per 1000 in 1995. Acute myocardial infarctions decreased by 5 per 1000 and the 2005 new retinopathy rate is 41 per 1000, down from 78 per 1000 in 1995. These results echo those reported by Gaede et al.⁴

Other data sources support overall net benefit. Medicare diabetes admission rates in Minnesota are among the lower rates in the country.⁵ Minnesota's death rate from heart disease, long the lowest in the country, is declining faster than the US rate.⁶

There is no substitute for good clinical judgment. Not all patients can or should reach aggressive treatment goals, as the authors point out. Reaching 100% Optimal Diabetes Care is not a clinically appropriate or desirable goal. Measurement helps clinicians improve patient care. Ideal treatment goals are an appropriate guide. They provide important comparisons for clinicians seeking to deliver the best possible care for their patients.

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IN RESPONSE

Drs Amundson and Isham suggest that the success of HealthPartners with composite All-or-None Optimal Diabetes Care measures is at variance with our recommendation that an all-or-none <7% A1C measure should not be applied to all persons in the United States with diabetes.¹ We respectfully disagree.

The rate of A1C <7% increased from 42% in 2001 to 50% in 2005. However, a randomized trial of a highly formalized quality improvement program at HealthPartners did not improve A1C outcomes in patients with pre and post A1C tests who were enrolled in primary care clinics.⁷ Moreover, trending cross-sectional measures overestimates improvement because persons with recent-onset diabetes constitute an increasing proportion of the denominator, resulting in attribution error, ie, differences in case mix attributed to differences in quality.^{8,9}

Therefore, we have proposed the use of longitudinal cohorts as a more accurate reflection of quality.⁹ However, as long as cross-sectional random samples are the industry standard, we must decrease bias resulting from case mix so that reported differences in percent adherence among plans or providers are attributed appropriately. In addition, because it is important that measures apply to patients who would benefit the most, there must be carefully defined inclusion/exclusion criteria lest inappropriate interventions be rewarded by appearing to be better quality.

Our study demonstrated that not only did a significant number of veterans younger than 65 years of age have significant comorbidities, but that excluding these individuals affected rankings. It is likely that the prevalence of such conditions would be even higher in populations aged 65 to 75 years. Because all populations may not be as healthy as in HealthPartners, our recommendations are consistent with principles of performance measurement development for other conditions, such as postmyocardial infarction interventions.¹⁰ It is also necessary to prevent harmful effects resulting from measurement superseding clinical judgment; we presume that is why the HealthPartners aspirin measures (included in their composite) specifically exclude individuals with contraindications from the denominator.³

Furthermore, we agree that “not all patients can or should reach aggressive treatment goals.” That is why we have previously argued that a <7% A1C for all persons with diabetes is a flawed measure for multiple reasons, not the least of which is that multiple guidelines and the evidence review for the National Heart, Lung, and Blood Institute Action to Control Cardiovascular Risk in Diabetes trial do not support a <7% target for millions of Americans.¹¹ Other organizations have not endorsed an optimal glycemic control measure, which suggests that many others share our concerns. Rather, we have proposed that a continuous and weighted A1C measure better reflects both the epidemiology of type 2 diabetes¹¹ and the difficulty in demonstrating efficacy of quality improvement efforts even in the most outstanding and committed healthcare plans with electronic health records.⁷

In conclusion, excluding individuals with mitigating comorbidities from a <7% A1C measure is necessary not only for more accurate reporting, but to mitigate the unintended consequences of a poorly specified measure on patient safety, shared decision making, and physician clinical judgment.

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W Web exclusive Letter to the Editors: The Effects of Cost Sharing on Statin Adherence (Alevizos Alevizos, Constantino Mihos, and Anargiros Mariolis) is available on ajmc.com.
