

# Nearly Half of Diabetics Fail to Reach Targets

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CHICAGO — Despite significant gains in disease control over the last 6 years, nearly half of patients with diabetes failed to reach national treatment goals in 2006.

An analysis of 22.7 million hemoglobin A<sub>1c</sub> tests performed on 4.8 million patients with diabetes mellitus revealed that as of December 2006, 55% of patients had reached the American Diabetes Association (ADA) treatment target of hemoglobin A<sub>1c</sub> levels less than 7%. This compares with 37.8% in 2001.

The analysis revealed that despite these overall gains, the decline in A<sub>1c</sub> values has slowed since 2003, leaving 45% of Americans with diabetes short of ADA targets in 2006.

"For this 45%, we are going to need new approaches to control their diabetes," coauthor Dr. Richard W. Furlanetto said at a press briefing during the annual scientific sessions of the ADA. "We'll need new medications certainly, but I think we'll need intensive education for these people and new ways of allowing them to live with their disease."

Roughly 28% of patients with type 1 diabetes reached an A<sub>1c</sub> level below 7% in 2001, compared with 35% in 2006. In contrast, 45% and 57% of patients with

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type 2 diabetes reached the target A<sub>1c</sub> over the same time period, said Dr. Furlanetto, a pediatric endocrinologist and medical director of endocrinology at Quest Diagnostics Nichols Institute in Chantilly, Va.

In patients with type 2 diabetes, the overall mean A<sub>1c</sub> values declined from 7.6% in 2001 to 7.3% in 2003, but then slowed significantly and stabilized at 7.2% in 2006, according to the analysis of data from the Quest Diagnostics Informatics Data Warehouse, a large private reference laboratory database.

The authors suggest that this HbA<sub>1c</sub> plateau mirrors the clinical progression of the disease as well as treatment patterns. Longitudinal analysis indicates that A<sub>1c</sub> values for individual patients decreased in the first 1-2 years, and then trended slowly upward. This could be a result of aggressive therapy and strict compliance in the early years, followed by worsening of the disease, which limits therapy, and less diligent treatment compliance, Dr. Furlanetto said.

One of the more striking findings in the study, which was presented as a poster at the meeting, was that A<sub>1c</sub> levels show significant seasonal fluctuations, with A<sub>1c</sub> levels peaking in the winter between January and March and falling between July and October.

The magnitude of the variation depended on patient age, diabetes type, and

winter A<sub>1c</sub> value. The variations were most apparent in those aged 80 years and older and those with the highest A<sub>1c</sub> levels (9% or more).

HbA<sub>1c</sub> measurements taken in late spring and late fall may be more representative of the annual mean A<sub>1c</sub> level, Dr. Furlanetto suggested.

While the number of tests reported in the study is more than 50 times that of other published reports on diabetes health, reporters questioned how applicable the

findings are to the average patient, given that the sample represents a fraction of the roughly 21 million Americans with diabetes.

Dr. Furlanetto acknowledged that the study was limited by its reliance on ICD-9 billing codes, but countered that the size of the database was substantial; that it covered all 50 states, the District of Columbia, and Puerto Rico; and that it may actually underrepresent the number of patients under the care of endocrinologists.

Session moderator Martha M. Funnell, a registered nurse and certified diabetes educator at the University of Michigan, Ann Arbor, said one of the strengths of the study was its size. "I realize it's not 100% of people with diabetes, but it's a very, very robust representation," she said. Additionally, the patient population was a random sample, and the study underrepresented endocrinologists, who would presumably provide better diabetes management, she added. ■

Are her symptoms  
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than *atypical*?

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Although chest pain is the most common symptom of myocardial infarction among both sexes,<sup>1</sup> women often present with symptoms that are not typically seen in men.<sup>2</sup> Coronary heart disease can be different in women, and many challenges exist in risk stratification and decision making.<sup>3,4</sup>

Myocardial perfusion imaging (MPI) can provide important risk stratification information in women.<sup>4</sup> Approximately 40% of women referred for MPI are candidates for pharmacologic stress.<sup>3</sup> For those unable to exercise adequately, Adenoscan stress provides interpretable MPI results in 98.7% of patients.<sup>5</sup>

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Approximately 2.6% and 0.8% of patients developed second- and third-degree AV block, respectively. All episodes of AV block have been asymptomatic, transient, and did not require intervention; less than 1% required termination of adenosine infusion.

Fatal cardiac arrest, sustained ventricular tachycardia (requiring resuscitation), and non-fatal myocardial infarction have been reported coincident with Adenoscan infusion. Patients with unstable angina may be at greater risk.

Side effects that were seen most often included flushing (44%), chest discomfort (40%), and dyspnea (28%). Side effects usually resolve quickly when infusion is terminated and generally do not interfere with test results.

Despite adenosine's short half-life, 10.6% of the side effects started several hours after the infusion terminated, and 8.4% of the side effects that began during the infusion persisted for up to 24 hours after infusion. In many cases, it is not possible to know whether these late adverse events are the result of Adenoscan infusion.

Please see brief summary of prescribing information on the next page.

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