Medical Xpress

New insights in diagnosing diabetes may help the millions who are undiagnosed

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In light of the 6.2 million Americans who don't realize they have diabetes, a panel of experts examined the current criteria for screening and diagnosing the disease and found a significant need for improvement. Their conclusions and recommendations can be found in a new report accepted for publication in the *Journal of Clinical Endocrinology & Metabolism (JCEM).*

"Approximately 30 percent of people with diabetes in the United States are undiagnosed," said Christopher Saudek, M.D., of Johns Hopkins School of Medicine in Baltimore, Md., and lead author of the report. "There are serious deficiencies in the current criteria for diagnosing diabetes and these shortcomings are contributing to avoidable morbidity and mortality".

One reason so many people with diabetes are undiagnosed is because commonly prescribed diagnostic tests require that a patient be fasting, said Saudek. This means that people who have eaten on the day of a doctor visit will not be diagnosed unless they have quite advanced diabetes.

As an alternative to the fasting plasma glucose or oral glucose tolerance tests, the panel suggested incorporating another measurement of glucose, hemoglobin A1c (HbA1c), into criteria for screening and diagnosing diabetes.

Hemoglobin is the oxygen-carrying protein located in red blood cells.

HbA1c is a form of hemoglobin that reflects the average blood glucose level over the previous several months, and has been used for a long time to indicate blood sugar levels in patients with diabetes. But it has never been officially accepted as a way for doctors to screen for or diagnose diabetes.

Current recommendations of the American Diabetes Association were made a decade ago and they rejected the use of HbA1c as a diagnostic tool largely because it was considered at the time to be inadequately standardized and insensitive. Given more recent evidence, the panel believes it is time to revisit using HbA1c and include it as necessary criteria in screening and diagnosing diabetes.

The measurement of HbA1c does not require fasting, while current accepted tests require the patient to fast for at least eight hours. Furthermore, HbA1c more accurately reflects longer-term glucose concentration in the blood; other tests can easily be affected by short-term lifestyle changes, such as a few days of dieting or exercise. And finally, HbA1c laboratory methods are now well standardized and reliable.

The panel recommends that screening standards be established that prompt further testing and closer follow-up. Standards could include HbA1c tests, for example HbA1c greater than 6 percent would qualify as being in need of follow-up; HbA1c greater than or equal to 6.5 percent confirmed by a glucose-dependent test should establish the diagnosis of diabetes.

Source: The Endocrine Society

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