

Change in guidelines for type 2 diabetes screening tests may lead to under-diagnosis in children, U-M study says

Change in guidelines for type 2 diabetes screening tests may lead to under-diagnosis in children, U-M study says

Ann Arbor, Mich. – New American Diabetes Association (ADA) screening guidelines may lead to the missed diagnoses of type 2 diabetes in children, according to a new study by University of Michigan.

The research, published in the *Journal of Adolescent Health*, finds that both pediatric and family medicine providers who care for children are using screening tests for type 2 diabetes that may result in missed diagnoses for children, says lead author **Joyce Lee**, M.D., M.P.H., associate professor in U-M's Departments of Pediatrics and Communicable Diseases and Environmental Health Sciences.

In 2010, the ADA recommended that physicians use Hemoglobin A1c screening tests, rather than glucose tests for identifying children and adults with pre-diabetes and diabetes. However, this change has been controversial, because of lower test performance of HbA1c in children compared with adults.

The study found that when presented with the ADA screening guidelines, 84% of physicians reported that they would switch from using glucose tests to using HbA1c tests.

“This potential for increased uptake of HbA1c could lead to missed cases prediabetes and diabetes in children, and increased costs,” says Lee.

“A number of studies have shown that HbA1c has lower test performance in pediatric compared with adult populations, and as a result, increased uptake of HbA1c alone or in combination with non-fasting tests could lead to missed diagnoses of type 2 diabetes in the pediatric population.

“Also, a recent analysis of screening strategies found that HbA1c is much less cost-effective than other screening tests, which would result in higher overall costs for screening.”

The study was based on a national sample of providers from pediatrics and family practice.

“Greater awareness of the 2010 ADA guidelines will likely lead to increased uptake of HbA1c and a shift to use of non-fasting tests to screen for adolescents with type 2 diabetes. This may have implications for detection rates for diabetes and overall costs of screening.”

Additional authors: All from the University of Michigan: Ashley Eason, M.P.H.; Courtney Nelson; Nayla G. Kazzi; Anne E. Cowan, M.P.H.; and Beth A. Tarini, M.D., M.S.

