



Each month we highlight a recent DPBRN publication, recent study results, or other important DPBRN information.

## Abstract of DPBRN Publication of the Month

[Development of a clinical guideline to predict undiagnosed diabetes in dental patients. JADA 2011; 142: 28-37.](#)

"Development of a clinical guideline to predict undiagnosed diabetes in dental patients" appeared in the January 2011 issue of *Journal of the American Dental Association*.

The authors of this article developed a clinical guideline to help dentists identify patients with undiagnosed diabetes. They did this by using classification and regression tree (CART) methods to generate different prediction models using data from the Third National Health and Nutrition Examination Survey (NHANES III) (1988-1994) and data from NHANES 2003-2004 for external validation. They classified participants who answered "No" to the question "Have you ever been told by a physician that you have diabetes?" and who had a fasting plasma glucose level greater than or equal to 126 milligrams per deciliter as having undiagnosed diabetes. The authors used oral examination data regarding the presence or absence of periodontitis and waist circumference, as well as data on participants' self-reported oral health status, weight, age, family history and race or ethnicity. The authors' final clinical guideline for predicting undiagnosed diabetes in dental patients had a sensitivity of 82.4 percent, a specificity of 52.8 percent and a receiver operating characteristic area under the curve of 0.72. They found that waist circumference, age, self-reported oral health status, self-reported race or ethnicity and self-reported weight information could be used to predict the risk of having undiagnosed diabetes (range, 0.1 to 9.1 percent). The authors concluded that dental care providers should consider using a clinical guideline that includes the following predictors: waist circumference, age, self-reported oral health, self-reported weight and self-reported race or ethnicity, as well as any additional information on periodontal status and family history of diabetes.

This clinical guideline could help dentists identify patients with undiagnosed diabetes, resulting in the early identification of dental patients who require treatment for diabetes and, thus, reduce morbidity and health care costs.

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