

# Risk Review Online

Your direct link to better risk management practices

a publication of **Princeton Insurance**

A Medical Protective/Berkshire Hathaway Company

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## Dentistry: Diagnosing Diabetes

A recent report titled "Identification of unrecognized diabetes and pre-diabetes in a dental setting" published in the Journal of Dental Research (July, 2011) finds that patients with certain dental conditions may be at greater risk for the disease.

For patients, a sooner-rather-than-later diagnosis of a diabetic condition provides a preemptive strike in managing their illness and mitigating the potential for serious disease-related complications (such as heart disease, stroke and other vascular conditions).

For dentists, a patient's overall medical history should be considered when evaluating dental conditions. The likelihood of desired dental outcomes increases when the disease is treated with the help of the patient's primary care physician.

According to Dr. Ira Lamster, senior author of the report, "Periodontal disease is an early complication of diabetes, and about 70 percent of U.S. adults see a dentist at least once a year."

Dr. Evanthia Lalla, lead author of the report and an associate professor at Columbia, states "relatively simple lifestyle changes in pre-diabetic individuals can prevent progression to frank diabetes, so identifying this group of individuals is also important. Our findings provide a simple approach that can be easily used in all dental-care settings."

Lamster, dean of Columbia University's College of Dental Medicine, and his team of researchers followed 600 patients treated at the Northern Manhattan dental clinic from 2009-2010. Included in this study were white adults ( $\geq 40$  years old) and Hispanic and non-white adults ( $\geq 30$  years old). Of these adults, approximately 88% had at least one risk factor for diabetes (family history of the disease, were overweight with a BMI or body mass index  $\geq 25$ , or had high cholesterol and/or hypertension). These individuals received a periodontal exam and a hemoglobin A1c test during the same visit. They later returned for a fasting plasma glucose test and the latter test results were then compared with the results of the identification protocols.

The outcome of this study demonstrates that using an "algorithm" based on two dental factors that included the number of missing teeth and the percentage of deep periodontal pockets was effective in identifying heretofore undiagnosed pre-diabetes or diabetes in this patient population. Results of the A1c test given during the dental visit further demonstrated the accuracy of this algorithm.

Other studies with similar findings include a survey by the National Center for Health Statistics (an arm of the Centers for Disease Control and Prevention) which tracked 2,923 adults from 2003-2004. According to the author of that report, Sheila Strauss, "... the dental visit could be a useful opportunity to conduct an initial diabetes screening – an important first step in identifying those patients who need follow-up testing to diagnose the disease."

An associate professor of nursing at New York University, Strauss notes that "93 percent of subjects who had periodontal disease were considered to be at high risk for diabetes and should be screened for diabetes. This compares to 63 percent of those without periodontal disease."

"Dentists are in a unique position to serve as the unsung hero in early diagnosis. Most patients have the opportunity to visit dentists twice a year, whereas visits to the doctor are less frequent and many people visit a doctor only when they have an immediate medical issue," notes Dr. Ron Inge, Vice President and Dental Director for Washington Dental Service and Executive Director of the Institute for Oral Health. "With this in mind ... dentists [need] to pay closer attention to diabetes and general health warning signs and recognize the close correlation dental health has to overall well being."

What does all of this mean for the dentist? It is not unreasonable to anticipate that as studies such as those referenced support dentists' ability – and therefore, responsibility – to consider a disease such as diabetes when treating their patients, there may be an additional exposure to a claim of dental negligence. This could be particularly relevant if an undiagnosed diabetic patient sustains permanent or life-threatening complications from the condition going untreated. Following are some risk management strategies a dentist can implement to limit his/her exposure to a negligence claim.

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1. Identify patients in your practice who may be at risk:

- Those with 4 or more missing teeth, a condition that may be due to higher levels of glucose inhibiting the ability of white blood cells to fight off infection and promote bacterial growth. Higher blood sugar levels decrease the amount of saliva often resulting in dry mouth, which contributes to tooth decay and, if left untreated, leads to the loss of one or more teeth. Other conditions include mouth ulcers and fungal infections.
- Those with deep periodontal pockets, a condition once again potentially attributable to higher glucose levels promoting bacterial growth that increases the risk for periodontitis and gingivitis.

2. Give proper attention to your patients' non-dental health issues. This can be achieved with a routine review of intake and updated medical histories (with attention to family history, obesity, hypertension and high cholesterol). Make sure documentation in the dental record reflects your review of these issues and when indicated, document your discussion with the patient and your recommendation for follow-up with a primary care physician.

3. Follow-up with the patient regarding recommendations for referrals and consultations is important, and these efforts should be documented as well, including outcome ("patient saw primary care physician" or "patient failed to follow through on referral").

4. Develop a treatment plan that accounts for deliberation of potential medical/health conditions and the rationale to include or dismiss any medical conditions in your diagnostic evaluation (and revise when necessary and appropriate if treatment outcome is not one that is anticipated).

Not only are the above strategies useful in limiting liability exposure, but provide a "value-added" component that will increase patient satisfaction with the services you provide.