



Clinical Digest

ONLINE EDITION

DIABETES

Screening Heart Patients for Diabetes

Despite clinical recommendations, 1 in 5 patients with coronary heart disease (CHD) may not be receiving screening for diabetes every 3 years, according to a Centers for Disease Control study.

Researchers collected data from the 2008 Behavioral Risk Factor Surveillance System—a state-based surveillance system that utilizes a random-digit-dialing protocol to survey a sample of U.S. adults. Of the 191,631 adults aged ≥ 35 years in 33 states who participated in the survey, 20,618 were classified as having CHD. Of those with CHD, 31% reported having a diagnosis of diabetes and 10% reported having a diagnosis of prediabetes. Nearly half (42%) had been screened in the previous 3 years and did not have a diagnosis of diabetes, while 18% of the surveyed adults reported not being screened in the previous 3 years.

CHD patients between age 55 and 74 years were significantly more likely to have diabetes than patients aged 75 years and older (35% vs 28%, respectively). Additionally, non-Hispanic white adults were less likely to have diabetes than non-Hispanic black adults (28% vs 45%, respectively). In regard to body mass index (BMI), adults of normal weight were less likely to report a diabetes diagnosis than obese adults (20% vs 43%, respectively).

Fewer significant differences were found when the researchers compared the prevalence of prediabetes among adults with CHD. Roughly 12% of patients aged 55 to 64 years had a diagnosis of prediabetes, compared

with 8% among patients aged 75 years and older. Similar to the diabetes group, adults with normal BMI were less likely to have prediabetes than obese adults (9.3% vs 12.2%, respectively). Interestingly, in this population, non-Hispanic white adults were more likely to have a diagnosis of prediabetes than non-Hispanic black adults (10.3% vs 7.4%, respectively).

The researchers point out that a diabetes diagnosis influences CHD treatment goals and drug treatment, such as use of ACE inhibitors. Moreover, the risk of CHD complications can be reduced by regular diabetes screenings, intensive treatment of hyperglycemia, and earlier initiation of antidiabetes treatment.

Source: *Am J Prev Med.* 2011;40(2):159-165.
doi:10.1016/j.amepre.2010.09.021.

ORAL DISEASE

Periodontal Disease, a Risk Factor for Hemodialysis Patients

Although studies have targeted periodontitis as both a predictor for and a trigger of cardiovascular- and infection-related mortality, only 1 study has addressed the issue in hemodialysis patients. Thus, researchers from Taiwan—who, in an earlier study, found a 60% prevalence of moderate to severe periodontitis among hemodialysis patients—decided to further investigate the matter.

Researchers conducted a prospective study in February and March 2004 to investigate the association between periodontitis and malnutrition-inflammation complex syndrome in patients with end-stage renal disease who were receiving hemodialysis. All participants had dental examinations

focusing on 6 teeth, which evaluated for plaque index, gingival index, and periodontal disease index. Researchers assessed all-cause and cardiovascular mortality during 6 years of follow-up. Of the 253 patients included in the analysis, 51 had severe periodontal disease, 98 had moderate disease, and 104 had mild or no disease.

During follow-up, 102 patients died: 52 of cardiovascular disease, 26 of infection-related diseases, 15 of malignancy, and 9 of other causes. The researchers found that severe periodontitis nearly doubled the risk of death: 71% of the patients with severe periodontitis died, compared with 42% of those with moderate periodontitis, and 24% of those with mild or no periodontitis. The plaque index, gingival index, and periodontal disease index scores in surviving patients were significantly lower than in those who died.

In univariate analysis, severe periodontitis markedly multiplied the risk of cardiovascular-related mortality, compared with no or mild periodontitis. However, the relationship was not statistically significant when the researchers adjusted for demographic and medical factors.

The researchers cite other studies that have suggested the increased risk of death could be caused by the combined effect of periodontal disease, calculus, and dental plaque. They add that their findings suggest a more severe plaque burden, gingival inflammation, and periodontal lesions in patients who died. Noting that periodontitis is a potentially treatable factor of chronic inflammation, they urge greater awareness of its diagnosis and management. ●

Source: *Am J Kidney Dis.* 2011;57(2):276-282.
doi:10.1053/j.ajkd.2010.09.016.