

American Academy of Periodontology Statement on Risk Assessment*

Risk assessment has been defined as the process by which qualitative or quantitative assessments are made of the likelihood for adverse events to occur as a result of exposure to specified health hazards or by the absence of beneficial influences. Over the last few years, there have been a number of publications and much discussion concerning the concept of risk assessment as part of the diagnosis, prognosis, and treatment planning for chronic diseases such as diabetes, cardiovascular disease, and periodontal diseases. Recently, the concept was incorporated into the American Academy of Periodontology's (AAP) *Guidelines for the Management of Patients With Periodontal Diseases*¹ and the Web-based AAP patient self-assessment tool for periodontal disease (located at www.perio.org).

A range of host-related factors can influence the onset, clinical presentation, and rate of periodontal disease progression. These factors include, but are not limited to, smoking, poorly controlled diabetes, poor oral hygiene, extent and severity of alveolar bone loss, positive family history, proportion of pocket probing depths >6 mm, age, gender, and gingival bleeding. To a lesser extent, the number of missing teeth is also a valuable predictive variable. In addition, certain etiologic microorganisms may be risk indicators.² Prospective longitudinal studies will be necessary to validate the relative predictive value of individual factors as predictors of a patient's future periodontal status. Computer tools are being developed that may result in more uniform and accurate periodontal clinical decision-making, improved oral health, reduction in the need for complex therapy, and reduction in health care cost.^{3,4}

The AAP *Guidelines* describe risk assessment as "... increasingly important in periodontal treatment planning and should be part of every comprehensive dental and periodontal evaluation."¹ Risk assessment goes beyond the identification of the existence of disease and its severity, and considers factors that may influence future progression of disease. Therefore, risk assessment helps predict a patient's likelihood

of developing the disease. Identifying adverse changes in risk factors, which might be suggestive of disease onset or progression (defined as deteriorating risk profile), is an important clinical concept. Recent papers reviewed the application of risk assessment and disease management to the general population and to groups at risk of developing periodontal disease. The authors concluded that risk assessment can help predict a patient's risk of developing periodontal diseases and improve clinical decision-making.^{2,5}

The existing data demonstrate a number of risk factors for progression of periodontal diseases. Utilizing risk assessment helps dental professionals predict the potential for developing periodontal diseases and allows them to focus on early identification and to provide proactive, targeted treatment for patients who are at risk for progressive/aggressive diseases. It is anticipated that this will reduce the need for complex periodontal procedures and the cost of periodontal care. Preliminary data show that this proactive, targeted treatment for patients with diabetes or cardiovascular disease may reduce their short- and long-term health care costs. Additional studies are underway in those areas.

The AAP believes the clinical use of risk assessment will become a component of all comprehensive dental and periodontal evaluations as well as part of all periodic dental and periodontal examinations.

REFERENCES

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