

Guidelines for the Management of Patients With Periodontal Diseases

In 2005, the American Academy of Periodontology undertook the development of guidelines for the management of patients with periodontitis. The development process took into consideration the latest research in the field of periodontics, comments from Academy members, and input from other dental organizations. The final product – *Guidelines for the Management of Patients With Periodontal Diseases* – is published in this issue of the *Journal*.

Today, there is greater public awareness about periodontal diseases and more treatment options for patients than ever before. However, as advancements in periodontal therapy continue to develop at a record-breaking pace, periodontal diseases remain the most common cause of adult tooth loss. In addition, accumulating research is further defining the links between periodontal diseases and other systemic conditions such as diabetes, adverse pregnancy outcomes, and cardiovascular diseases. Patients are beginning to understand that good periodontal health is more important than ever before.

It is the Academy's hope that these *Guidelines* will help to improve the periodontal health of all patients with periodontitis. Evidence suggests that an increasing number of patients would benefit from periodontal specialty care. Clearly, there has been some confusion regarding periodontal treatment and continued reevaluation of its effectiveness and when a periodontist should be consulted as a member of the patient's treatment team. These *Guidelines* can help the entire dental team in the timely identification of patients with periodontal diseases and those most appropriate for specialty care.

Patients at risk for periodontal diseases can often be overlooked during a routine dental examination because they appear to be in a state of periodontal health, yet there can be underlying risk factors that could increase the probability of periodontitis in the future. Many practitioners are aware that the concept of risk in the treatment of chronic diseases is rapidly becoming an important component of patient care and will ultimately drive treatment decisions and appropriate referrals in the healthcare community. For example, we know that a patient in excellent cardiovascular health today may be at high risk for developing the disease at some point in the future

based on certain genetic or behavioral factors. The same is true for periodontal diseases. These *Guidelines* are meant to help identify patients who are at greatest risk early and, therefore, would benefit from specialty care. The *Guidelines* are in no way meant to replace a practitioner's knowledge, skills, or abilities; a "one-size-fits-all" treatment plan for periodontal diseases does not exist. The diagnosis and treatment of periodontal diseases continue to present significant challenges to all practitioners regardless of experience level.

We encourage periodontists to take these *Guidelines* and incorporate them into their daily routine and share them with their referring colleagues. These *Guidelines* provide a basis for strengthening existing relationships and building new ones. Periodontists have a unique relationship with general dentists because they are the only specialists who work with the restorative community throughout a patient's life. There are many times that we hear from our referring colleagues that they have referred patients for specialty care, but, for one reason or another, the patient never follows through. We urge you to take the time to develop protocols with your referring colleagues for periodontal specialty care and to help optimize the health of your patients.

This is an exciting time in periodontics. We encourage you to share these *Guidelines* with all members of your dental team and work to incorporate them into the management of your periodontal patients. The Academy hopes that the adoption of the *Guidelines* into everyday practice will help to provide guidance and perspective to the dental community. Together, we can work to enhance and ensure the periodontal health of all.

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Periodontal diseases present significant challenges for the public and dental profession. They are the major cause of tooth loss in adults, and they can have a devastating impact on oral function and appearance. Emerging research suggests possible links between inflammation caused by periodontal diseases and other adverse health conditions, such as heart attacks, strokes, diabetes, and preterm and low-weight births.

Some patients can be well managed within the general dental practice, whereas others would benefit from comanagement with a periodontist. Determining if and when a patient should be referred to a periodontist are sometimes difficult issues.

Communication between the referring dentist and periodontist is especially important in establishing responsibilities for periodontal treatment and maintenance. The education, experience, and interest of individual practitioners vary, and, therefore, specialty referral may occur at different stages of a patient's disease state and risk level. The chronic nature of inflammatory periodontal diseases requires that the clinician regularly reassess patients for appropriate lifelong disease management. Because periodontal diseases can affect soft and hard tissues, practitioners are cautioned to address both soft tissue lesions and bone involvement. This is particularly true for practices that administer "soft tissue management" programs, as the limited approach of these programs may lead to inappropriate treatment of the patient's periodontal diseases.

Risk assessment is increasingly important in periodontal treatment planning and should be part of every comprehensive dental and periodontal evaluation. This evolving paradigm in the treatment of chronic diseases, such as periodontal diseases, not only identifies the existence of disease and its severity, but also considers factors that may influence future progression of disease.

The American Academy of Periodontology recognizes that the periodontist–dental team partnership is unique in that it enables long-term comanagement of periodontal patients. This concept of comanagement may occur at different intervals of a patient's treatment depending on risk factors that may contribute to the progression of periodontal diseases and its consequences. The following *Guidelines* are provided to assist in the timely identification of patients

who would benefit from comanagement and the unique partnership between a periodontist and referring dentist. From time to time, the Academy will update these *Guidelines*.

An explanation of terms is included as part of the *Guidelines*, and research supporting the content of the *Guidelines* is available on the American Academy of Periodontology's Web site at <http://www.perio.org>.

LEVEL 3: PATIENTS WHO SHOULD BE TREATED BY A PERIODONTIST

Any patient with:

- Severe chronic periodontitis
- Furcation involvement
- Vertical/angular bony defect(s)
- Aggressive periodontitis (formerly known as juvenile, early-onset, or rapidly progressive periodontitis)
- Periodontal abscess and other acute periodontal conditions
- Significant root surface exposure and/or progressive gingival recession
- Peri-implant disease

Any patient with periodontal diseases, regardless of severity, whom the referring dentist prefers not to treat.

LEVEL 2: PATIENTS WHO WOULD LIKELY BENEFIT FROM COMANAGEMENT BY THE REFERRING DENTIST AND THE PERIODONTIST

Any patient with periodontitis who demonstrates at reevaluation or any dental examination one or more of the following risk factors/indicators* known to contribute to the progression of periodontal diseases:

Periodontal Risk Factors/Indicators

- Early onset of periodontal diseases (prior to the age of 35 years)
- Unresolved inflammation at any site (e.g., bleeding upon probing, pus, and/or redness)

* It should be noted that a combination of two or more of these risk factors/indicators may make even slight to moderate periodontitis particularly difficult to manage (e.g., a patient under 35 years of age who smokes).

Pocket depths \geq 5 mm
 Vertical bone defects
 Radiographic evidence of progressive bone loss
 Progressive tooth mobility
 Progressive attachment loss
 Anatomic gingival deformities
 Exposed root surfaces
 A deteriorating risk profile

Medical or Behavioral Risk Factors/Indicators

Smoking/tobacco use
 Diabetes
 Osteoporosis/osteopenia
 Drug-induced gingival conditions (e.g., phenytoins, calcium channel blockers, immunosuppressants, and long-term systemic steroids)
 Compromised immune system, either acquired or drug induced
 A deteriorating risk profile

LEVEL 1: PATIENTS WHO MAY BENEFIT FROM COMANAGEMENT BY THE REFERRING DENTIST AND THE PERIODONTIST

Any patient with periodontal inflammation/infection and the following systemic conditions:

Diabetes
 Pregnancy
 Cardiovascular disease
 Chronic respiratory disease

Any patient who is a candidate for the following therapies who might be exposed to risk from periodontal infection, including but not limited to the following treatments:

Cancer therapy
 Cardiovascular surgery
 Joint-replacement surgery
 Organ transplantation

FREQUENTLY ASKED QUESTIONS (FAQs)

The American Academy of Periodontology's *Guidelines for the Management of Patients With Periodontal Diseases*

What are the *Guidelines*?

- The *Guidelines* provide information to assist in the timely identification of patients who would benefit from comanagement by the referring dentist and the periodontist.

Why did the Academy develop the *Guidelines*?

- The Academy's objective is to encourage referring dentists and periodontists to work together to optimize the health of patients. Determining if and when a patient should be referred to a periodontist are sometimes difficult issues. These *Guidelines* are intended to help the general practitioner in the rapid identification of those patients at greater risk for the consequences of periodontal inflammation and infection and, therefore, those patients most appropriate for specialty referral.
- Despite recent advancements in periodontal therapy, periodontal diseases continue to present significant challenges for the public and dental profession. Periodontal diseases remain a major cause of tooth loss in adults. In addition, periodontal diseases are associated with systemic conditions, such as cardiovascular disease, diabetes, adverse pregnancy outcomes, and respiratory disease. Periodontists are experts in assessing and treating periodontal diseases.
- Accumulating evidence, including recent literature, suggests that an increasing number of patients would benefit from periodontal specialty care. This evidence also suggests that these patients are being referred later in the disease process than in the past.

Who needs/benefits from the *Guidelines*?

- All dental teams and their patients need and will benefit from the *Guidelines*.

How were the *Guidelines* developed, and who developed them? Did the Academy collaborate with organized dentistry or any other groups or individuals on these *Guidelines*?

- A Board of Trustees-appointed task force consisting of periodontal practitioners, academicians, and researchers developed the *Guidelines*.
- The Academy distributed a draft version of the *Guidelines* to all members, the American Dental Association, Academy of General Dentistry, and American Dental Hygienists' Association for commentary.
- All organizations and more than 375 members provided commentary.
- The task force revised the *Guidelines* based on the comments received.

What are the benefits of using the *Guidelines*?

The *Guidelines* will:

- Help the practitioner in triaging patients who currently have or who are at risk for the development of periodontal diseases.

- Help the general practitioner more effectively address the association of periodontal diseases and systemic diseases/conditions.
- Assist the general dentist and hygienist in the management of periodontal diseases.
- Result in appropriate and timely treatment of periodontal diseases.

In addition, the *Guidelines*:

- Should enhance the restorative outcome of dental treatment by establishing and maintaining a healthy periodontal foundation.
- Are clear, concise, and should be easy to incorporate into daily practice and will enhance the partnership between periodontists and referring dentists.

Where do the *Guidelines* fit in the process of care?

- The *Guidelines* will become an integral part of patient management.
- The *Guidelines* do not replace the knowledge, skills, and abilities of the dental team.

The *Guidelines* mention the concept of risk assessment. What is risk assessment, and why is it so important?

- Risk assessment is the process of determining the qualitative or quantitative estimation of the likelihood of adverse events that may result from exposure to specified health hazards or from the absence of beneficial influences. Upon dental examination, many practitioners incorrectly assume that a patient in a state of periodontal health is not at risk for developing periodontitis. Indeed, the patient may have risk factors/indicators (e.g., a smoking habit, diabetes, and young age) that could increase the probability of the occurrence of periodontitis in the future. Therefore, risk assessment helps predict a patient's disease state at some future point in time or the rate of progression of current disease.

Why are patients with furcation involvement considered among those patients who "should be treated by a periodontist"?

- Periodontists are specialists trained to assess and treat the more advanced forms of periodontal diseases and associated lesions. Furcation involvements are among the most problematic periodontal lesions. Therefore, it is often appropriate that earlier manifestations of these lesions be evaluated and managed by a periodontist.

The *Guidelines* suggest that certain patients can only be treated by a periodontist. Is this true?

- No. Some patients can be well managed within the general dental practice, whereas others would benefit from comanagement with a periodontist. The Academy understands that the education, experience, and interests of individual general-practitioner dentists vary, and, therefore, specialty referral may occur at different stages of a patient's disease state and risk level.
- Referral is not only associated with treatment but also includes consultation.

Do all patients who are referred to periodontists require surgery?

- No. Comprehensive care by a periodontist includes non-surgical and/or surgical therapies depending on the needs of the individual patient.

Dental implants, oral reconstructive and corrective procedures, and tissue engineering are not included in the *Guidelines*. Why aren't these procedures included?

- These *Guidelines* are focused on the management of patients with periodontitis. They do not include all areas of periodontal specialty care or specific treatment modalities.
- Dental implants, periodontal plastic surgery, oral reconstructive surgery, and tissue-engineering procedures are currently performed by periodontists.
- The development of clinical guidelines for these other areas of periodontics is being considered by the Board of Trustees.

Where is the research to support statements made in the *Guidelines*?

- The Academy's Web site includes many resources that support the *Guidelines for the Management of Patients With Periodontal Diseases*. These resources are located at <http://www.perio.org/resources-products/posppr2.html>.

Is the Academy implying a medicolegal standard with the dissemination of these *Guidelines*?

- This document is intended to serve as a guide for the dental team in managing patients with periodontal diseases.
- The Academy believes that all dentists have the right to practice according to their education, training, and experience. Clearly, each dentist has an obligation to render treatment in the best interests of the patient.

- It is hoped that this document will help dentists identify patients at greatest risk for periodontal diseases so that these patients receive appropriate and timely periodontal care.

EXPLANATION OF TERMS

- **May:** A choice to act or not; indicates freedom or liberty to follow a suggested alternative.
- **Should:** A highly desirable direction but does not mean mandatory.
- **Must:** Used to express a command; indicates an imperative or duty. This term does not appear in the document and is provided as a comparison to the terms “may” and “should.”
- **Comanagement:** A shared responsibility for patient care between a periodontist and referring dentist. This patient management may consist of consultation and/or treatment.
- **Reevaluation:** Assessment of a patient’s periodontal status and risk profile after therapy to be used as a basis for subsequent patient management.
- **Deteriorating Risk Profile:** Adverse changes in risk factors/indicators suggestive of disease onset or progression.
- **Disease Definitions:** For disease definitions such as Severe Chronic Periodontitis, Aggressive Periodontitis, and Acute Periodontal Conditions, please refer to volume 4 of the *Annals of Periodontology* at <http://www.perio.org/resources-products/classification.htm>.
- **Peri-Implant Disease:** Chronic inflammation and/or bone loss around dental implants that may influence implant status.
- **Periodontal Inflammation:** Most periodontal diseases including chronic and aggressive periodontitis are inflammatory diseases. Chronic periodontitis has an infectious etiology from the endogenous plaque biofilm. This type of opportunistic infection results in a chronic release of inflammatory cytokines, prostaglandins, and destructive enzymes from neutrophils and mononuclear cells in the periodontium. The ensuing chronic inflammation in the tissue is what leads to the pathologic anatomic changes clinically detectable as periodontal pockets and alveolar bone loss. Furthermore, some microorganisms of the biofilm and inflammatory mediators from the affected tissue may adversely affect systemic chronic inflammatory diseases and pregnancy outcomes.
- **Significant Root Surface Exposure:** Gingival recession of sufficient magnitude that results in the loss of tooth structure, sensitivity, esthetic concerns, or attachment loss.