Agency for Healthcare Research and Quality
Advancing Excellence in Health Care

NATIONAL GUIDELINE CLEARINGHOUSE

General

Guideline Title

Comprehensive periodontal therapy: a statement by the American Academy of Periodontology.

Bibliographic Source(s)

Comprehensive periodontal therapy: a statement by the American Academy of Periodontology. J Periodontol. 2011 Jul;82(7):943-9. [133 references] PubMed

Guideline Status

This is the current release of the guideline.

Recommendations

Major Recommendations

Periodontal Evaluation

A comprehensive assessment of a patient's current health status, history of disease, and risk characteristics is essential to determine the periodontal diagnosis and prognosis of the dentition and/or the suitability of dental implants. Patients should receive a comprehensive periodontal evaluation and their risk factors should be identified at least on an annual basis. Such an evaluation includes discussion with the patient regarding his/her chief complaint, medical and dental history review, clinical examination, and radiographic analysis. Microbiologic, genetic, biochemical, or other diagnostic tests may also be useful, on an individual basis, for assessing the periodontal status of selected individuals or sites. The following procedures should be included in a comprehensive periodontal evaluation:

1. Extra- and intraoral examination to detect nonperiodontal oral diseases or conditions
2. Examination of teeth and dental implants to evaluate the topography of the gingiva and related structures; to measure probing depths, the width of keratinized tissue, gingival recession, and attachment level; to evaluate the health of the subgingival area with measures such as bleeding on probing and suppuration; to assess clinical furcation status; and to detect endodontic–periodontal lesions
3. Assessment of the presence, degree, and/or distribution of plaque/biofilm, calculus, and gingival inflammation
4. Dental examination including caries assessment, proximal contact relationships, the status of dental restorations and prosthetic appliances, and other tooth- or implant-related problems
5. An occlusal examination that includes, but may not be limited to, determining the degree of mobility of teeth and dental implants, occlusal patterns and discrepancy, and determination of fremitus
6. Interpretation of current and comprehensive diagnostic-quality radiographs to visualize each tooth and/or implant in its entirety and assess the quality/quantity of bone and establish bone loss patterns
7. Evaluation of potential periodontal–systemic interrelationships

8. Assessment of the need for and suitability of dental implants
9. Determination and assessment of patient risk factors such as age, diabetes, smoking, cardiovascular disease, and other systemic conditions associated with development and/or progression of periodontal disease

Establishing a Diagnosis, Prognosis, and Treatment Plan

Clinical findings together with a diagnosis and prognosis should be used to develop a logical plan of treatment to eliminate or alleviate the signs and symptoms of periodontal diseases, thereby arresting or slowing further disease progression. The treatment plan should be used to establish the methods and sequence of delivering appropriate periodontal treatment, which may include non-surgical, surgical, regenerative, and cosmetic periodontal therapy or dental implant placement.

When indicated, the plan should include:

1. Medical and dental consultation or referral for treatment, when appropriate
2. Surgical and non-surgical periodontal and implant procedures to be performed
3. Consideration of adjunctive restorative, prosthetic, orthodontic, and/or endodontic consultation or treatment
4. Provision for ongoing reevaluation during periodontal or dental implant therapy and throughout the maintenance phase of treatment
5. Consideration of diagnostic testing that may include microbiologic, genetic, or biochemical assessment or monitoring during the course of periodontal therapy
6. Consideration of risk factors including, but not limited to, diabetes and smoking, which play a role in development, progression, and management of periodontal diseases
7. Periodontal maintenance program including ongoing evaluation and reevaluation for treatment

Informed Consent and Patient Records

Informed consent should be obtained prior to the commencement of therapy. Complete records of the periodontal examination (including full charting), diagnosis, treatment, and recommended follow-up are essential and should be maintained according to state law. Information given to the patient should include the following:

1. The diagnosis, etiology, proposed therapy, possible alternative treatment(s), and the prognosis with and without the proposed therapy or possible alternatives
2. Recommendations for treatment to be performed by other dentists or physicians
3. The reasonably foreseeable inherent risks and potential complications associated with the proposed therapy, including failure with the ultimate loss of teeth or dental implants
4. The need for periodontal maintenance treatment after active therapy due to the potential for disease recurrence

Treatment Procedures

When indicated, treatment should include:

1. Patient education, training in oral hygiene, and counseling on control of risk factors (e.g., stress, medical status, smoking, etc.) with appropriate referral if needed
2. Management of periodontal–systemic interrelationships, when appropriate
3. Removal of supra- and subgingival bacterial plaque/biofilm and calculus by comprehensive, meticulous periodontal scaling and root planing. In some instances, these procedures may be incorporated into the surgical treatment.
4. Chemotherapeutic agents may be used as appropriate to reduce, eliminate, or change the quality of microbial pathogens, or to alter the host response through local or systemic delivery.
5. Resective procedures to reduce or eliminate periodontal pockets and create an acceptable gingival form that facilitates oral hygiene and periodontal maintenance. Soft tissue procedures include gingivectomy, gingivoplasty, and various mucogingival flap procedures. Osseous procedures include ostectomy and osteoplasty. Dental tissue procedures include root resection, tooth hemisection, and odontoplasty. Combined dental tissue and osseous procedures may be required.
6. Periodontal regenerative procedures including bone replacement grafts, use of biologics, root biomodification, guided tissue regeneration, and combinations of these procedures for osseous, furcation, and gingival recession defects. Periodontal/oral reconstructive procedures include guided bone regeneration, ridge augmentation, ridge preservation, implant site development, and sinus grafting.
7. Periodontal plastic surgery for gingival augmentation, correction of recession or soft tissue deformities, or enhancement of oral esthetics
8. Occlusal therapy that may include tooth movement, occlusal adjustment, splinting, periodontally accelerated osteogenic orthodontics, or biteguard therapy as a means to establish and maintain occlusal health
9. Preprosthetic periodontal procedures including exploratory flap surgery, resective procedures, regenerative procedures, mucogingival

procedures, or crown lengthening
10. Selective extraction of teeth, roots, or implants
11. Surgical placement of dental implants and management of peri-implant disease
12. Procedures to facilitate orthodontic treatment including tooth exposure, frenulectomy, fiberotomy, temporary anchorage devices, and gingival augmentation
13. Finishing procedures, which include post-treatment evaluation with review and reinforcement of daily oral hygiene when appropriate

Evaluation of Therapy

Upon completion of planned periodontal therapy, the record should document that:

1. The patient has been counseled on why and how to perform an effective daily personal oral hygiene program including managing their own personal risk factors associated with development and/or progression of periodontal diseases.
2. All indicated therapeutic procedures have been performed.
3. The patient's response to therapy has been evaluated, and treatment objectives have been met.
4. A recommendation has been made for the correction of any tooth form, tooth position, restoration, or prosthesis considered to be contributing to the periodontal disease process.
5. An appropriate professional periodontal maintenance program, specific to individual circumstances, has been recommended to the patient for long-term control of his/her condition, as well as for the maintenance of dental implants, if present. This should include professional management of those risk factors associated with development and/or progression of periodontal diseases including, but not limited to, smoking and diabetes.

Factors Modifying Results

The results of periodontal therapy may be adversely affected by factors that include systemic diseases; inadequate plaque/biofilm control; unknown or undeterminable etiologies; pulpal–periodontal problems; inability or failure of the patient to follow the suggested treatment or maintenance program; adverse environmental influences such as smoking and stress; occlusal dysfunction; and uncorrectable anatomic, structural, or iatrogenic causalities.

Patients with medical compromises, those who refuse or delay treatment, or those who present with other limitations may be unable to undergo recommended procedures required to establish a completely healthy periodontium. In those situations, appropriate therapy to establish the best possible periodontal health is indicated.

Periodontal Maintenance Therapy

Upon completion of active periodontal therapy, periodontal maintenance visits should include:

1. Update of medical and dental histories
2. Evaluation of current extra- and intraoral periodontal and peri-implant soft tissues as well as dental hard tissues and referral when indicated (e.g., for treatment of carious lesions, pulpal pathoses, or other conditions) and diagnostic-quality radiographs when appropriate
3. Assessment of the oral hygiene status with reinstruction when indicated
4. Mechanical tooth cleaning to disrupt/remove dental plaque, biofilms, stain, and calculus. Local delivery or systemic chemotherapeutic agents may be used as adjunctive treatment for recurrent or refractory disease.
5. Ongoing assessment of risk factors to identify an individual who may be more highly susceptible to ongoing breakdown of the periodontal or peri-implant tissues, with elimination or mitigation of new or persistent risk and etiologic factors with appropriate treatment
6. Identification and treatment of new, recurrent, or refractory areas of periodontal and peri-implant pathoses
7. Establishment of an appropriate interval for periodontal maintenance

The patient should be kept informed of:

1. Areas of persistent, recurrent, refractory, or newly occurring periodontal or peri-implant disease
2. Changes in the periodontal prognosis and risk factors associated with periodontal diseases
3. Advisability of further periodontal treatment or retreatment of indicated sites
4. Status of dental implants
5. Other oral health problems that may include caries, defective restorations, and non-periodontal mucosal diseases or conditions
6. Changes that would warrant referral to, or consultation with, other dental or medical specialists

Clinical Algorithm(s)

None provided

Scope

Disease/Condition(s)

Periodontal disease

Guideline Category

Counseling

Diagnosis

Evaluation

Management

Prevention

Risk Assessment

Treatment

Clinical Specialty

Dentistry

Plastic Surgery

Surgery

Intended Users

Allied Health Personnel

Dentists

Health Care Providers

Physicians

Guideline Objective(s)

- To assist all members of the dental team who provide periodontal care
- To assist those who supervise, teach, or regulate the provision of periodontal therapy

Target Population

People in need of periodontal treatment

Interventions and Practices Considered

1. Periodontal evaluation
2. Establishing a treatment plan
3. Obtaining informed consent and patient records
4. Treatment procedures
    - Patient education and referral if needed
    - Management of periodontal-systemic interrelationships
    - Removal of bacterial plaque/biofilm and calculus
    - Chemotherapeutic agents
    - Resective procedures to reduce or eliminate periodontal pockets
    - Periodontal regenerative procedures
    - Periodontal plastic surgery
    - Occlusal therapy
    - Preprosthetic periodontal procedures
    - Selective extraction of tooth, roots, or implants
    - Surgical placement of dental implants and management of peri-implant disease
    - Procedures to facilitate orthodontic treatment
5. Evaluation of therapy, including counseling on daily personal oral hygiene program
6. Periodontal maintenance program and maintenance visits

Major Outcomes Considered

- Periodontal inflammation (i.e., redness, swelling, suppuration, and bleeding on probing)
- Retained natural dentition
- Plaque/biofilm control
- Peri-implant disease

Methodology

Methods Used to Collect/Select the Evidence

Searches of Electronic Databases

Description of Methods Used to Collect/Select the Evidence

PubMed and Medline were searched for relevant literature from 1976-2010. Specific search terms used included: comprehensive periodontal evaluation, periodontal therapy, periodontal maintenance, periodontal treatments, moderate to severe periodontal disease, risk assessment, evaluation of periodontal therapy, and perio-systemic (general).

Number of Source Documents

Not stated

Methods Used to Assess the Quality and Strength of the Evidence

Expert Consensus (Committee)

Rating Scheme for the Strength of the Evidence

Not applicable

Methods Used to Analyze the Evidence

Review

Review of Published Meta-Analyses

Description of the Methods Used to Analyze the Evidence

Not stated

Methods Used to Formulate the Recommendations

Expert Consensus

Description of Methods Used to Formulate the Recommendations

This statement was developed under the direction of the American Academy of Periodontology Task Force to Update the Guidelines for Periodontal Therapy.

Rating Scheme for the Strength of the Recommendations

Not applicable

Cost Analysis

A formal cost analysis was not performed and published analyses were not reviewed.

Method of Guideline Validation

Internal Peer Review

Description of Method of Guideline Validation

This statement was reviewed and approved by the Board of Trustees of the American Academy of Periodontology in November 2010.

Evidence Supporting the Recommendations

Type of Evidence Supporting the Recommendations

The type of evidence supporting the recommendations is not specifically stated.

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

Appropriate comprehensive periodontal therapy

Potential Harms

Potential complications of therapy, including ultimate loss of teeth or dental implants

Qualifying Statements

Qualifying Statements

This statement represents the views of the American Academy of Periodontology regarding periodontal therapy and related procedures. It must be recognized, however, that decisions with respect to the treatment of patients must be made by the individual practitioner in light of the condition and needs of each specific patient. Such decisions should be made in the best judgment of the practitioner, taking into account all relevant circumstances.

Implementation of the Guideline

Description of Implementation Strategy

An implementation strategy was not provided.

Implementation Tools

Patient Resources

Resources

Slide Presentation

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Getting Better

Staying Healthy

IOM Domain

Effectiveness

Patient-centeredness

Identifying Information and Availability

Bibliographic Source(s)

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Adaptation

Not applicable: The guideline was not adapted from another source.

Date Released

2011 Jul

Guideline Developer(s)

American Academy of Periodontology - Professional Association

Source(s) of Funding

American Academy of Periodontology

Guideline Committee

Task Force to Update the Guidelines for Periodontal Therapy

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Financial Disclosures/Conflicts of Interest

Not stated

Guideline Status

This is the current release of the guideline.

Guideline Availability

Electronic copies: Available in Portable Document Format (PDF) from the American Academy of Periodontology Web site .

Availability of Companion Documents

A PowerPoint presentation and other resources for sharing the therapy statement are available to registered members from the American Academy of Periodontology Web site .

Patient Resources

A comprehensive periodontal evaluation checklist for patients is available to registered members from the American Academy of Periodontology Web site .

Please note: This patient information is intended to provide health professionals with information to share with their patients to help them better understand their health and their diagnosed disorders. By providing access to this patient information, it is not the intention of NGC to provide specific medical advice for particular patients. Rather we urge patients and their representatives to review this material and then to consult with a licensed health professional for evaluation of treatment options suitable for them as well as for diagnosis and answers to their personal medical questions. This patient information has been derived and prepared from a guideline for health care professionals included on NGC by the authors or publishers of that original guideline. The patient information is not reviewed by NGC to establish whether or not it accurately reflects the original guideline's content.

NGC Status

This NGC summary was developed by ECRI Institute on January 6, 2012. The information was verified by the guideline developer on February 3, 2012.

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