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PREAMBLE

WHEN THE PARAMETERS of Care Document, Version 1, was published in March, 1996, it represented the commitment of the American College of Prosthodontists (ACP) to fulfill its responsibilities as the voice of the specialty of prosthodontics. The document enabled the ACP to answer many calls for guidance from members, other dental specialists, general dentists, allied health professionals, dental organizations, dental educators, third-party payors and managed care groups, governmental bodies, and most importantly, the patients whom prosthodontists serve. The Parameters of Care Document provided a foundation for increased professional and public awareness of the most predictable and favorable prosthodontic treatments available, both at the time of publication and in the future.

The original document was developed with the direction and support of ACP Officers and members of the Board of Directors. An outstanding group of members committed itself to organizing and writing the drafts of the document, which were refined, reviewed, and evaluated by the Educators/Mentors conference, the House of Delegates, the Board of Directors, and a wide range of members and communities of interest. When the House of Delegates accepted the document, the Board of Directors directed the publication of the document in the *Journal of Prosthodontics*. That issue of March 1996, was a landmark document and represented a major milestone for the specialty of prosthodontics.

Since its publication, the Parameters of Care document has withstood the test of time. In addition, since then, the College has developed Classifications of Complete Edentulism, Partial Edentulism, and Completely Dentate patients. The nomenclature now used is the Prosthodontic Diagnostic Index (PDI). Prosthodontics is a specialty of diagnosis and treatment planning, not of single tooth surface restoration. With these advancements, it was time for the document to be revised, updated, and rewritten, passing the same process of review before being suitable for publication.

Therefore, Version 2 of the Parameters of Care document is another defining moment for our specialty. The Parameters now include the (PDI) classification systems and the standards they entail. The Parameters also include Diagnostic Insurance Codes and Treatment Insurance Codes for the different levels of difficulty of prosthodontic patients. It is therefore a working document for clinical practice, educational settings, and patient presentations. It more thoroughly answers the call for guidance from all interested parties. This document also includes checklists and worksheets for everyday use. In summary, this document is the College's definition of the specialty of prosthodontics for its members, the profession, and the patients we serve.

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Chair, Parameters of Care Committee
American College of Prosthodontists

Parameters of Care for the Specialty of Prosthodontics

Background Statement

The consolidation of the governance of the specialty of prosthodontics has conveyed many responsibilities to the American College of Prosthodontists. One of these responsibilities is the development and dissemination of the Parameters of Care Document for the Specialty of Prosthodontics. This document is written to help identify, define, and quantify many of the aspects of the delivery of prosthodontic specialty services to the public.

This Parameters of Care Document is intended to help clinicians in providing the highest-quality level of clinical care, establish a consensus of professional opinion, and serve to constantly enhance clinical performance. In addition, parameters of care may be of help in risk management, education and testing, and third-party relations–appropriateness of care. The document provides a framework for quality assessment in prosthodontic specialty training programs. Thus, parameters of care are developed to improve patient care by providing clinicians first with a foundation and then with a broad framework or environment in which they can operate with predictable and favorable treatment outcomes. The Institute of Medicine defines "parameters" as systematically developed statements to assist practitioner and patient decisions about appropriate health care for specific clinical circumstances. The reasons for developing parameters of care are as follows:

1. Assessing and assuring the quality of care;
2. Assisting in patient and clinician decision making;
3. Educating individuals and groups;
4. Reducing the risk of legal liability for negligent care;
5. Guiding the allocation of health resources; and
6. Identifying clinical situations that are most appropriately treated by specialty-trained clinicians.

Practice parameters vary in the scope of the clinical problems they address and the specificity with which they can be applied. Through the process of developing such parameters several critical characteristics of credible practice parameters have been identified. Among these characteristics are the following, which are most applicable to the ACP parameters:

1. Prepared in an objective manner;
2. Based on existing science;
3. Representative of professional consensus; and
4. Formulated to provide structured flexibility.

The Process of Reaching a Consensus

The quality of care is best defined in objective terms and by a process that minimizes subjective, unsubstantiated opinion. The American College of Prosthodontists Parameters of Care Document was developed with this in mind. The subcommittees responsible for the various sections reviewed and discussed the literature concerning the associated clinical and laboratory sciences. They reached a consensus that was shared with all other subcommittee members. When consensus was reached among the parameter committee as a whole, the document was distributed to the membership, which provided written comments and participated in an open forum held at the 1994 ACP Annual Session. The original document, and this subsequent revision, represent a consensus reflecting not only the deliberations of the expert subcommittee, but also a broad segment of the membership.

Clinical practice involves the management of patients who present with considerable biological variability. Parameters that do not take this into account and are too rigidly structured are not clinically appropriate. The structured flexibility inherent in the ACP parameters refers to a structure that defines

the relevant dimensions of the care provided by prosthodontists. Such flexibility does not imply that these parameters are diluted, but rather that they incorporate the realities of the broad basis of clinical practice. It is important to recognize that practice parameters are designed to represent an objective interpretation of clinical practice and its associated science. Although the parameters for each of the clinical sections may vary in their specificity because of the variability of their science base, they do provide clear, focused guidance concerning patient management. Parameters also help identify gaps in scientific and clinical knowledge that warrant research and investigation.

The Scope of the Parameters

The range of the clinical conditions treated by prosthodontists is as varied as any of the specialties. Thus, the development of parameters was a major undertaking. This revised and updated edition of the document is a continuation of the process of critical review and assessment of clinical practice. It is important to note that historically and traditionally the specialty of prosthodontics has considered itself by a listing and description of clinical techniques; i.e., fixed prosthodontics, removable prosthodontics, maxillofacial prosthodontics, and implant prosthodontics. This type of consideration is restrictive in the constantly evolving specialty of prosthodontics. Prosthodontics is defined by the diseases and conditions presented by our patients, and the specialty is responsible for the diagnosis and treatment of complete and partial edentulism. These parameters begin the critical process of delineating those clinical conditions and diagnoses that prosthodontists most appropriately treat because of their advanced education and training. The patient's underlying clinical condition that defines the need for treatment is the first critical factor that identifies the scope of prosthodontic specialty care; the techniques used are the second factor. Thus, this Parameters of Care Document identifies and defines clinical conditions that require prosthodontic care:

1. Comprehensive Clinical Assessment Parameter
2. Limited Clinical Assessment Parameter
3. Completely Dentate Patient Parameter
4. Partial Edentulism Parameter
5. Complete Edentulism Parameter
6. Implant Placement and Restoration Parameter
7. Tooth Preparation and Modification Parameter
8. Esthetics Parameter
9. Temporomandibular Disorders Parameter
10. Upper Airway Sleep Disorders (UASDs) Parameter
11. Maxillofacial Prosthetic Parameter
12. Local Anesthesia Parameter
13. Adjunctive Therapies Parameter

By defining the clinical conditions to be addressed by each parameter, the clinician and patient are able to select an appropriate treatment sequence. It is important to emphasize that the final judgment regarding care for any given patient rests with the treating prosthodontist. All members of the College must realize that a parameter of care has direct influence on the practice of prosthodontics and that they must familiarize themselves with all aspects of this document.

This revised and updated document also represents the union of the Parameters of Care and the Prosthodontic Diagnostic Index (PDI). Therefore, the Classifications (Completely Dentate, Partially Edentulous, and Completely Edentulous) have been incorporated into each appropriate section. Thus, the document indicates diagnosis and treatment planning as a function of the complexity of the patient's condition.

Introduction and Overview

This document is an acknowledgement by the American College of Prosthodontists of the need to be the leading force in the development and dissemination of a Parameters of Care Document for

prosthodontics. The ACP recognizes the current demand for a parameters document by other professional specialty societies, third-party payors, public interest groups, and the many levels of government. By assuming the responsibility for a prosthodontics Parameters of Care document, the membership of the ACP will prevent untoward influence of outside groups in the practice of prosthodontic care to the public. The ACP, consisting of fellows and members, is the most appropriately trained and educated society to develop a parameters document. Solicitation of additional expertise was accomplished by interaction with many prosthodontically oriented societies to ensure a balanced document that reflects the realities of the clinical environment.

"Parameters of Care" is a phrase used to describe an organized range of accepted patient management strategies, including guidelines, criteria, and standards. The establishment of parameters provides a means to assess the appropriate nature and quality of a selected treatment modality for application to an identified clinical condition in patients requiring prosthodontic care. The initial document reflected many areas of prosthodontic care amenable to parameter formations. Although these parameters cover a wide spectrum of prosthodontic practice, future development of additional parameters is foreseen. These parameters vary in their specificity and research base; thus, they represent an attempt to incorporate the best available knowledge about the diagnosis and treatment of clinical conditions requiring prosthodontic care.

This document outlines areas of prosthodontic practice that reflect current clinical considerations that enhance the quality of care patients receive on a consistent basis. This document is developed for use by the fellows and members of the ACP and other members of the dental profession to increase the quality and reliability of prosthodontic care; however, the ultimate judgment regarding appropriateness of any specific procedure must be made by the prosthodontist in cooperation with the patient and in consideration of the limitations presented by the patient. It must be understood that adherence to the parameter does not guarantee a favorable outcome, nor does deviation from a parameter indicate less-than-acceptable care; however, when a prosthodontist, in consultation with a patient, does elect to deviate from a parameter, it is highly recommended that the reason for deviation be recorded in the patient's record.

This document was developed to assist the educationally qualified prosthodontist of the ACP and other members of the dental profession to provide consistent, reliable, and predictable prosthodontic care to the public. The intents are to raise the level of care to the public and to develop measurable criteria so that outcome assessment criteria can be developed in the future. Whereas many prosthodontic procedures are routinely and appropriately performed by non-prosthodontists, it is incumbent for a dental practitioner providing prosthodontic care to recognize those clinical conditions that require the additional training and expertise of prosthodontic specialists so that the patient will receive the most reliable and predictable care.

Summary Statement

The ACP Parameters of Care Document was developed with the goal of being as inclusive as scientifically possible in recognizing variations in patients' clinical conditions and current therapeutic techniques. However, certain clinical conditions and procedures are associated with considerable uncertainty and variation in clinical outcome, especially in prosthodontic procedures in which patient cooperation and compliance are integral to favorable outcomes. In some instances there is an inadequate amount of valid scientific information to thoroughly substantiate patient management procedures. However, when such situations were recognized, the parameters were developed using thorough and critical literature reviews, appropriateness criteria, and available clinical outcome data. As new information is developed, each parameter will be reviewed and revised on a regular schedule. This parameters document is the continuation of critical reassessment of evidence-based clinical practice. The parameters document is a work in progress that requires timely nurturing and revision to maintain its credibility. The ACP is committed to continued attention to this document.

Thus, achieving quality is not a finite end but rather a continuous process that is driven by the discovery of new information and the changing expectations of practitioners, patients, and the public. The ACP

is committed to the ongoing search for improved treatment procedures to enhance the prosthodontic health of the public.

Authors

As members of the Committee on Parameters of Care, it is important to recognize the dedication and hard work of these members as the authors of this landmark project. It must also be noted that valuable contributions were made by many individuals who cannot be personally recognized; however, without their assistance this document could not have been completed.

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Acknowledgments

This document is a compilation of work by many groups and individuals both within and outside the field of dentistry. It is most appropriate to recognize the American Association of Oral and Maxillofacial Surgeons. Their pioneering work in the parameters of care field has led the way for the rest of dentistry. AAOMS was especially helpful and generous in the formative stages of the ACP document.

Two other organizations deserving special recognition are The American Academy of Maxillofacial Prosthetics and The Academy of Prosthodontics.

This project has endured with the support of four consecutive presidents of the ACP: Dr Ron Woody, Dr. Peter Johnson, Dr. Carl Schulter, and Dr. Ken Turner.

The revised edition was accomplished under the presidencies of Dr. Nancy Arbree and Dr. Patrick Lloyd.

Application of Parameters of Care to Clinical Practice

The ultimate utility of parameters of care in clinical practice is a key issue that must be considered in the process of introducing and further developing the ACP Parameters of Care. To assist practitioners in the use of these parameters, the following approach to the document is suggested. This approach is designed to tailor the application of parameters to the procedures usually followed in the management of a patient, regardless of the presenting condition. In addition, the procedures apply whether the patient's presenting condition or the patient's presenting concerns are the reason for the initial contact. Six issues

are considered in applying the parameters to each of the clinical conditions contained in the parameters document. Each of the clinical conditions within the 13 clinical areas is analyzed on the basis of these six issues, which are considered essential in determining the criteria for satisfactory clinical practice. Following is a definition of these issues:

1. *Indications for Care* delineate the reasons for prosthodontic management, including the symptoms of descriptive characteristics of patients who would be candidates for this type of prosthodontic care. For each condition all or some of the indications may be applicable;
2. *Therapeutic Goals* describe the purpose of each treatment in terms of results desired both by the patient and by the prosthodontist;
3. *Factors Affecting Risk* are severity factors that increase risk and the potential for known complications. They are specific variables usually descriptive of the patient's characteristics or condition (e.g., age, factors in medical history, etc.) that may affect the outcome either favorably or unfavorably. These factors may present or impede achievement of the therapeutic goals, increase the potential for unfavorable outcomes, or may promote or facilitate favorable outcomes. For example, patient noncompliance may compromise the success of treatment, whereas compliance will enhance it;
4. *Standards of Care* outline the procedures followed in providing care that meets therapeutic goals, maximizes favorable outcomes, and minimizes risks and complications, based on the current state of knowledge;
5. *Favorable Outcomes* consist of the clinical observations or other evidence that the usually expected results of treatment have been achieved. From these outcomes, measurable elements can be derived for entry into a computer program and compilation into a national database so that success rates for each procedure can be analyzed; and
6. *Known Risks and Complications* are those conditions, circumstances, or outcomes that are known to be associated with the management of patients. Whether or not they are avoidable, data as to their frequency of occurrence will be useful for identifying preferred prosthodontic methods and practice patterns. These issues can be divided into three groups depending on when they occur in the continuum of patient care. The following is a tabulation of this grouping and a discussion of how these issues can be applied to clinical conditions.

Assessment

During the initial contact with the patient there is an *assessment* of the presenting condition(s) and acknowledgement of the patient's concerns. This includes a determination of the *indications for care* and identification of the *therapeutic goals* to be achieved if such care is provided. The *factors affecting risk* are those severity factors that increase risks and the potential for known complications. These factors should be identified for the condition(s) being treated and considered in the treatment planning process.

Therapy

Once the presenting condition has been assessed by the prosthodontist, a plan of treatment is established and agreed upon. The *standards of care* are those therapeutic interventions that have been identified as appropriate for the respective clinical condition(s). The specific standard of care selected by the prosthodontist is determined on the basis of the information reviewed at the assessment interval.

Outcomes

The final determination that is made in applying the parameters is the outcome of the therapy that was employed to treat the clinical condition with which the patient presented and address the patient's concerns. The *specialty performance assessment* indices (i.e., favorable outcomes and the known risks and complications) are intended to provide the basis for an objective evaluation of the patient's condition after therapeutic intervention. Favorable outcomes and known risks and complications are indices used

by the specialty to assess the appropriateness of the prosthodontic care provided. More than one outcome indicator may be identified in the course of this evaluation.

This analysis of prosthodontic practice by indications for care, therapeutic goals, risk factors, standards of care, and performance assessment indices provides the foundation for broad-based performance improvements in the practice of the specialty.

The selected references at the conclusion of each section acknowledge the sources of information used by the revision committee in its work. They are not intended to be an exhaustive list of information on the subject.

Note

1) Comprehensive Clinical Assessment Parameter

Preface

The comprehensive clinical assessment is the critical step in achieving predictable and successful prosthodontic therapy. The identification and collection of clinical assessment data is necessary to accomplish the integration of that data into a diagnosis, treatment plan, and prognosis. The clinical data gathered form the foundation of the diagnostic process. With this diagnostic foundation, the treatment plan can be developed to address clinical conditions and patient desires. Thus, a prognosis can be offered to the patient based on the clinical assessment, the diagnosis, and the treatment plan. This sequence of treatment will increase the predictability of prosthodontic care. A standardized diagnostic criterion will enable a prosthodontist to offer an accurate prognosis and will enable the collection of outcome data for the treatment plan executed.

Evaluation of the patient's prosthodontic status requires obtaining and documenting relevant medical and dental history information, conducting a thorough clinical assessment of extraoral and intraoral structures, reviewing physical symptoms, and evaluating the patient's psychosocial status.

Examination Criteria

I. Chief Complaint
II. Identification of providers
  A. Identification of primary dental care provider(s)
  B. Identification of other adjunctive dental care providers
  C. Identification of health care providers
III. History
  A. Medical
    1. Current medications
    2. Drug allergies/hypersensitivity
    3. Alterations in normal physiology
    4. Review of physical signs and symptoms
    5. Identification of medical conditions that affect dental care
  B. Dental
  C. Psychosocial factors

IV. Extraoral Exam
- *A*. TMD screening
- *B*. Maxillofacial defects
- *C*. Skeletal evaluation
- *D*. Soft tissue

V. Intraoral Exam
- *A*. Periodontal screening
- *B*. Maxillofacial defects
- *C*. Occlusal
- *D*. Dental
- *E*. Soft tissue

VI. Records
- *A*. Radiographs
- *B*. Diagnostic casts
- *C*. Imaging
- *D*. Charting
- *E*. Hypertension screening
- *F*. Consultations with other health care providers

General Criteria and Standards

Informed Consent: All prosthodontic procedures should be preceded by the patient's consent. Informed consent is obtained after the patient has been informed of the indications for the procedure(s), goals of treatment, the known benefits and risks of the procedure(s), the factors that may affect the known risks and complications, the treatment options, the need for active maintenance by the patient, and the need for future replacement/revisions, and the favorable outcome.
Documentation: Parameters of care for prosthodontic procedures include the documentation of objective findings, diagnosis, and patient management intervention.

Coding and Nomenclature

Diagnostic and procedural codes have been included in the ACP Parameters of Care only for general guidance. The codes listed may not be all-inclusive or represent the most current or specific choices. The inclusion of codes is not meant to supplant the use of current coding books or to relieve practitioners of their obligation to remain current in diagnostic and procedural coding. The ACP Committee on Parameters of Care and Committee on Nomenclature do not endorse the use of this document as a coding manual.

The diagnostic and procedural codes listed throughout this section may not be all-inclusive and should serve only as practice guidelines. ICD-9-CM (*International Classification of Diseases, Ninth Revision, Clinical Modification)* diagnostic codes may change yearly and must be reviewed and updated annually to ensure accuracy. Specific diagnoses must be obtained from a current, recognized ICD-9-CM code source and substantiated by documentation in the dental record. Procedural codes listed throughout this section serve as a guide, which may be applicable to the treatment performed or management modality chosen. These may not be the most recent, applicable, or acceptable codes. Some dental/medical insurance providers have billing conventions unique to their organizations. It is the provider's responsibility to be aware of these unique situations.

Current Procedural Terminology (CPT®), the recognized codes for dental/medical billing, are revised yearly and must be reviewed and updated annually to ensure accuracy. The recent codes are accepted by dental/medical insurance providers and should be obtained from the current year's version of the *American Medical Association (AMA) CPT Manual*. *Current Procedural Terminology*

Current Dental Terminology (CDT) codes, the recognized codes for dental/medical billing, are revised every 3 years (previously every 5 years) and should be reviewed and updated whenever the most recent version of the *American Dental Association (ADA) CDT Manual* is published.

Parameter Guidelines: Comprehensive Clinical Assessment

ICD-9-CM

306.8 Other specified psychophysiological malfunction: Bruxism, Teeth grinding

520 Disorders of tooth development and eruption
521 Diseases of hard tissues of teeth
522 Diseases of pulp and periapical tissues
523 Gingival and periodontal diseases
524 Dentofacial anomalies, including malocclusion
525 Other diseases and conditions of the teeth and supporting structures
526 Diseases of the jaws
527 Diseases of the salivary glands
528 Diseases of the oral soft tissues, excluding diseases specific for gingival and tongue
529 Diseases and other conditions of the tongue

873.6 Tooth (broken) uncomplicated
873.7 Tooth (broken) complicated

A. Indications for care
  1. Clinical condition(s) requiring prosthodontic care as defined by Prosthodontic Diagnostic Index (PDI) [ACP Patient Classifications System] and other clinical conditions
  2. Professional referral [99201-99204 CPT-2005]
  3. Dental evaluation prior to medical treatment [99271-5 CPT-2005]
  4. Dental evaluation relating to side effects of medical treatment [99271-5 CPT-2005]
  5. Patient concerns [99201-99204 CPT-2005]
B. Therapeutic goals
  1. Identify the factors that would influence diagnosis, treatment planning, and treatment completion
  2. Patient education
  3. Develop an accurate prognosis for treatment of diagnosed condition(s)
  4. Develop alternative treatment plans
  5. Address patient concerns
C. Risk factors affecting clinical assessment
  1. Inability to record necessary data because of physical/psychological limitations
  2. Refusal of patient referral to additional health care providers
  3. Lack of patient understanding or unrealistic expectations
  4. Patient noncompliance
  5. Psychosocial factors
D. Standards of care
  1. Presentation of diagnostic findings [D0100-D0999, D9310 CDT-2005]
  2. Discussion of treatment alternatives and consequences of no treatment
E. Specialty performance assessment criteria
  1. Favorable outcome of clinical assessment
    a) Noninvasive or minimally invasive procedures that rarely have irreversible consequences
    b) Identify sufficient information to assist in the successful treatment of the patient's clinical condition
    c) Identify factors that might compromise the treatment outcome

2. Known risks and complications
   a) Temporary pain from necessary clinical examination
   b) Transient bleeding
   c) Dislodgment of existing restorations
   d) Hyperactive gag reflex
   e) Increased anxiety levels
   f) Extraction of mobile teeth during diagnostic impression making
   g) Aggravation of preexisting or unknown disease conditions
   h) Lack of patient understanding or unrealistic expectations

Selected References (Comprehensive Clinical Assessment Parameter)

This list of selected references is intended only to acknowledge some of the sources of information drawn upon in the preparation of this document. Citation of the reference material is not meant to imply endorsement of any statement contained in the reference material, or that the list is an exhaustive compilation of information on the topic. Readers should consult other sources to obtain a complete bibliography.

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2) Limited Clinical Assessment Parameter

Preface

Many patients evaluated by prosthodontists do not require a comprehensive clinical assessment. There are multiple types of limited assessments:

1. Referral
2. Emergency

3. Second opinions
4. Other

The dental history and clinical examination should focus on the limited problem or complaint identified by a health care provider and/or presented by the patient. It should also include a general survey of the oral cavity and related structures. The prosthodontist must use his or her discretion in identifying which of the examination criteria need be evaluated to complete a limited assessment:

1. Chief complaint
2. Identification of primary care provider
3. Identification of all other health care providers
4. Identification of necessary examination criteria to achieve a diagnosis

General Criteria and Standards

Informed consent: All prosthodontic procedures should be preceded by the patient's consent. Informed consent is obtained after the patient has been informed of the indications for the procedure(s), goals of treatment, the known benefits and risks of the procedure(s), the factor(s) that may affect the known risks and complications, the treatment options, the need for active maintenance by the patient, the need for future replacements and revisions, and the favorable outcome.
Documentation: Parameters of care for prosthodontic procedures include documentation of objective findings, diagnosis, and patient management intervention.

Coding and Nomenclature

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Parameter Guidelines: Limited Clinical Assessment

ICD-9-CM

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C. Risk factors affecting clinical assessment
  1. Inability to record necessary data because of physical/psychological limitations
  2. Refusal of patient referral to additional health care providers
  3. Problem-focused, limited examination
  4. Patient noncompliance
  5. Psychosocial factors
D. Standards of care
  1. Informed consent regarding consequences of no treatment and limited examination [D0100-D0999, D9310 CDT-2005]
  2. Patient education to include need for comprehensive assessment
  3. Inform patient of other observed pathology not part of the limited assessment
E. Specialty performance assessment criteria
  1. Favorable outcome of clinical assessment
    a. Noninvasive or minimally invasive procedures that rarely have irreversible consequences
    b. Identify sufficient information to assist in the successful treatment of the patient's clinical condition
    c. Identify factors that would compromise the treatment outcome
  2. Known risks and complications
    a. Temporary pain from necessary clinical examination
    b. Transient bleeding
    c. Dislodgment of existing restorations
    d. Hyperactive gag reflex

e. Increased anxiety levels
f. Extraction of mobile teeth during diagnostic impression making
g. Aggravation of preexisting or unknown disease conditions
h. Lack of patient understanding or unrealistic expectations

Selected References (Limited Clinical Assessment Parameter)

This list of selected references is intended only to acknowledge some of the sources of information drawn upon in the preparation of this document. Citation of the reference material is not meant to imply endorsement of any statement contained in the reference material, or that the list is an exhaustive compilation of information

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3) Completely Dentate Patient Parameter

Preface

The completely dentate patient is a patient with an intact continuous permanent dentition with no missing teeth or roots, excluding the third molars. This parameter is structured to accommodate increasing levels of diagnostic and restorative complexity. All the disciplines of dentistry may be included in the classifications–surgical considerations, periodontal considerations, endodontic considerations, orthodontic considerations, oral pathology considerations, TMD considerations, operative considerations, and prosthodontic considerations.

In the treatment of the completely dentate patient, the integration of all of the above considerations is where the specialty of prosthodontics has the most to offer a patient. The management of the myriad variables in the completely dentate patient is the essence of specialty-level prosthodontic therapy. Classifying diagnostic categories enables selection of appropriate treatment.

The Prosthodontic Diagnostic Index (PDI) [ACP Patient Classifications System] for the completely dentate patient is delineated by two criteria. The classification is assigned based upon consideration and evaluation of the following criteria:

1. Tooth condition
2. Occlusal scheme

By use of the PDI, patients will have the opportunity to have the most appropriate therapy selected to address their clinical conditions. The four classes of the completely dentate patient are:

1. Class I – characterized by ideal or minimally compromised tooth condition and occlusal scheme. All criteria are favorable.

2. Class II – characterized by moderately compromised tooth condition and occlusal scheme. This class displays noted continuation of the physical degradation of one or both of the criteria.
3. Class III – characterized by substantially compromised tooth condition requiring the reestablishment of the occlusal scheme without a change in the occlusal vertical dimension, with or without substantial localized adjunctive therapy.
4. Class IV – characterized by severely compromised tooth condition requiring the reestablishment of the occlusal scheme with a change in the occlusal vertical dimension, with or without extensive adjunctive therapy.

This diagnostic system will help identify those conditions that require clinical techniques associated with advanced prosthodontic training. These diagnostic categories will help standardize treatment regimens and will help provide outcome data for diagnosis/treatment combinations.

Terminal dentition describes a condition in which there are insufficient teeth to maintain function and the arch, as a whole, will transition to the edentulous state. The etiology might be periodontal disease, caries, trauma, insufficient teeth to maintain function, prosthodontic discomfort, and/or patient desires. Transition to total edentulism should only be considered when the patient is fully informed of all variables (e.g., prognosis of teeth, chance of success measured against longevity of treatment) and consequences that affect the value of treatment. Patient desires and expectations must be considered in conjunction with the professional knowledge and judgment of the prosthodontist.

It must be noted that in the treatment of the completely dentate patient, patient attitude, cooperation, and compliance are of great importance in long-term success. Successful treatment for the completely dentate patient is a mutual effort between the prosthodontist and the patient. A refractory patient is one who presents with chronic complaints following appropriate therapy. In those instances where patient expectations exceed physical limitations, a mutually satisfactory result may not be possible through the completion of their treatment plan.

General Criteria and Standards

Informed Consent: All prosthodontic procedures should be preceded by the patient's consent. Informed consent is obtained after the patient has been informed of the indications for the procedure(s), goals of treatment, the known benefits and risks of the procedure(s), the factor(s) that may affect the known risks and complications, the treatment options, the need for active maintenance by the patient, the need for future replacements and revisions, and the favorable outcome.

Documentation: Parameters of care for prosthodontic procedures include documentation of objective findings, diagnosis, and patient management intervention.

Coding and Nomenclature

Diagnostic and procedural codes have been included in the ACP Parameters of Care only for general guidance. The codes listed may not be all-inclusive or represent the most current or specific choices. The inclusion of codes is not meant to supplant the use of current coding books or to relieve practitioners of their obligation to remain current in diagnostic and procedural coding. The ACP Committee on Parameters of Care and Committee on Nomenclature do not endorse the use of this document as a coding manual.

The diagnostic and procedural codes listed throughout this section may not be all-inclusive and should serve only as practice guidelines. ICD-9-CM (*International Classification of Diseases, Ninth Revision, Clinical Modification)* diagnostic codes may change yearly and must be reviewed and updated annually to ensure accuracy. Specific diagnoses must be obtained from a current, recognized ICD-9-CM code source and substantiated by documentation in the dental record. Procedural codes listed throughout this section serve as a guide, which may be applicable to the treatment performed or management modality chosen. These may not be the most recent, applicable, or acceptable codes. Some dental/medical insurance

providers have billing conventions unique to their organizations. It is the provider's responsibility to be aware of these unique situations.

Current Procedural Terminology (CPT), the recognized codes for dental/medical billing, are revised yearly and must be reviewed and updated annually to ensure accuracy. The recent codes are accepted by dental/medical insurance providers and should be obtained from the current year's version of the *American Medical Association (AMA) CPT Manual*. *Current Procedural Technology* © 2005 American Medical Association. All rights reserved.

Current Dental Terminology (CDT) codes, the recognized codes for dental/medical billing, are revised every 3 years (previously every 5 years) and should be reviewed and updated whenever the most recent version of the *American Dental Association (ADA) CDT* manual is published. *Current Dental Terminology* © 2002, 2004 American Dental Association. All rights reserved.

Parameter Guidelines: Partial Edentulism

ICD-9-CM

306.8 Other specified psychophysiological malfunction: Bruxism, Teeth grinding
521 Diseases of hard tissues of teeth
522 Diseases of pulp and periapical tissues
523 Gingival and periodontal diseases
524 Dentofacial anomalies, including malocclusion
525 Other diseases and conditions of the teeth and supporting structures

A. Indications for care
1. Caries [521.0-521.09 ICD-9-CM]
2. Attrition [521.10-521.15 ICD-9-CM]
3. Erosion [521.30-521.35 ICD-9-CM]
4. Abrasion [521.20-521.25 ICD-9-CM]
5. Abfraction
6. Fractures/microfractures/cracks [873.6-873.7 ICD-9-CM]
7. Endodontic therapy
8. Intra-arch and interarch integrity [524.0-524.2 ICD-9-CM]
9. Tooth mobility
10. Diastemas
11. Tooth malposition
12. Loss of occlusal vertical dimension [524.2 ICD-9-CM]
13. Esthetics
14. Pathogenic occlusion [524.4 ICD-9-CM]
15. Failed existing restorations
16. Correction of congenital abnormalities
17. Lack of mastication
18. Impaired speech
19. Impaired swallowing
20. Lack of TM joint and orofacial muscle support
21. Psychosocial factors
22. Airway restriction
23. Lack of intra- and interarch integrity and stability
24. Patient concerns

B. Therapeutic goals
1. Improved mastication
2. Improved speech
3. Improved esthetics
4. Improved swallowing

5. Restoration of facial height
6. TM joint and orofacial muscle support
7. Positive psychosocial response
8. Airway support
9. Improved comfort
10. Improved tooth form and function
11. Tooth stabilization
12. Restore intra-arch and interarch integrity and stability
13. Improved periodontal health
14. Address patient concerns

C. Risk factors affecting quality of treatment
1. Dyskinesia
2. Existing systemic disease
3. Hyperactive gag reflex
4. Xerostomia
5. Increased salivation
6. Periodontal disease
7. Endodontic complications
8. Alveolar bone loss
9. Occlusal factors
10. Skeletal factors
11. Inadequate tooth structure
12. Parafunctional habits
13. Caries susceptibility
14. Psychosocial factors

D. Standards of care
1. Patient education
2. Informed consent
3. Preprosthetic preparation
   a. Nonsurgical
   b. Surgical
   c. Endodontic
   d. Periodontal
   e. Orthodontic
   f. TMD
   g. Other referral
4. Class I completely dentate patient [D2000-D2999 CDT 2005]
   a. Treatment of etiologic factors
   b. Intracoronal and extracoronal restorative procedures
   c. Partial or complete arch impression
   d. Articulation in maximum intercuspation on an articulator
   e. Insertion of prosthesis
   f. Post treatment follow-up
5. Class II completely dentate patient [D2000-D2999 CDT 2005]
   a. Treatment of etiologic factors
   b. Intracoronal and extracoronal restorative procedures
   c. Partial or complete arch impression
   d. Articulation in maximum intercuspation on an articulator
   e. Insertion of prosthesis
   f. Post treatment follow-up
6. Class III completely dentate patient [D2000-D2999 CDT 2005]
   a. Treatment of etiologic factors

b. Intracoronal and extracoronal restorative procedures
c. Complete arch impression
d. Maxillomandibular record at the existing occlusal vertical dimension
e. Facebow record and articulation on a semi-adjustable articulator
f. Insertion of prosthesis
g. Post treatment follow-up

7. Class IV completely dentate patient [D2000-D2999 CDT 2005]
a. Accommodation to systemic conditions
b. Treatment of etiologic factors
c. Establish therapeutic occlusal vertical dimension
d. Intracoronal and extracoronal restorative procedures
e. Complete arch impression
f. Maxillomandibular record at the confirmed therapeutic occlusal vertical dimension and eccentric records as necessary
g. Facebow record and articulation on a semi- or fully adjustable articulator
h. Metal or porcelain try-in and assessment
i. Insertion of prosthesis
j. Post treatment follow-up

E. Specialty performance assessment criteria
1. Favorable outcomes
a. Reduction and/or elimination of etiology
b. Improved mastication
c. Improved speech
d. Improved esthetics
e. Improved swallowing
f. Establishment of therapeutic occlusal vertical dimension
g. Restored TM joint and orofacial muscle support
h. Improved tooth stability
i. Address patient concerns
j. Positive psychosocial response
k. Improved airway support
l. Improved comfort
m. Satisfactory patient adaptation
n. Improved intra-arch and interarch integrity and stability.

2. Known risks and complications
a. Refractory patient response
b. Ulcerations
c. Speech alterations
d. Unacceptable esthetics
e. Unrealistic patient expectations
f. Materials failure/incompatibility
g. Functional limitations
h. Difficult mastication and swallowing
i. TM joint and/or orofacial muscle dysfunction
j. Periodontal complications
k. Endodontic complications
l. Alterations in taste perception
m. Allergic response
n. Unknown longevity of materials
o. Increased caries susceptibility
p. Tooth sensitivity
q. Tongue/cheek biting
r. Pain

Selected References (Completely Dentate Patient Parameter)

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4) Partial Edentulism Parameter

Preface

The assessment of partial edentulism encompasses everything from the loss of a single tooth to the loss of all teeth but one. All the disciplines of dentistry may be involved–surgical considerations, periodontal considerations, endodontic considerations, orthodontic considerations, oral pathology considerations, TMD considerations, operative considerations, and prosthodontic considerations.

In the treatment of partial edentulism, the integration of all of the above considerations is where the specialty of prosthodontics has the most to offer a patient. The management of the myriad variables in partially edentulous conditions is the essence of specialty-level prosthodontic therapy. Classifying diagnostic categories enables selection of appropriate treatment.

The Prosthodontic Diagnostic Index (PDI) [ACP Patient Classifications System] for Partial Edentulism is delineated by four criteria. The classification is assigned based upon consideration and evaluation of the following criteria:

1. Location and extent of the edentulous area(s)
2. Condition of abutments
3. Occlusion
4. Residual ridge characteristics

With the use of the PDI, patients will have the opportunity to have the most appropriate therapy selected to address their clinical conditions. The four classes of partial edentulism are:

1. Class I – characterized by ideal or minimally compromised teeth and supporting anatomic structures. All criteria are favorable.
2. Class II – characterized by moderately compromised teeth and supporting anatomic structures. This class displays noted continuation of the physical degradation of one or more of the four criteria.
3. Class III – characterized by substantially compromised teeth and supporting anatomic structures. This class requires the reestablishment of the entire occlusal scheme without a change in the occlusal vertical dimension with or without substantial localized adjunctive therapy.
4. Class IV – characterized by severely compromised teeth and supporting anatomic structures requiring a reestablishment of the entire occlusal scheme with a change in the occlusal vertical dimension.

This diagnostic system will help identify those conditions that require clinical techniques associated with advanced prosthodontic training. These diagnostic categories will help standardize treatment regimens and will help provide outcome data for diagnosis/treatment combinations.

Terminal dentition describes a condition in which there are insufficient teeth to maintain function and the arch, as a whole, will transition to the edentulous state. The etiology might be periodontal disease, caries, trauma, insufficient teeth to maintain function, prosthodontic comfort, and/or patient desires. Transition to total edentulism should only be considered when the patient is fully informed of all variables (e.g. prognosis of teeth, chance of success measured against longevity of treatment) and consequences that affect the value of treatment. Patient desires and expectations must be considered in conjunction with the professional knowledge and judgment of the prosthodontist.

Dental implant therapy offers an alternative to maintenance of a failing dentition and its associated sequelae. The significant transition to edentulism involves special treatment considerations. Immediate dentures are measured by different criteria than definitive prostheses. The initial goals are immediate replacement of form and function and management during the healing phase. When an approximate state of stability is achieved, the goals shift to restoration of long-term form and function.

It must be noted that in the treatment of partial edentulism, patient attitude, cooperation, and compliance are of great importance in long-term success. The successful treatment for partial edentulism is a mutual effort between the prosthodontist and the patient. A refractory patient is one who presents with chronic complaints following appropriate therapy. In those instances where patient expectations exceed physical limitations, a mutually satisfactory result may not be possible through the completion of their treatment plan.

General Criteria and Standards

Informed consent: All prosthodontic procedures should be preceded by the patient's consent. Informed consent is obtained after the patient has been informed of the indications for the procedure(s), goals of treatment, the known benefits and risks of the procedure(s), the factor(s) that may affect the known risks and complications, the treatment options, the need for active maintenance by the patient, the need for future replacements and revisions, and the favorable outcome.
Documentation: Parameters of care for prosthodontic procedures include documentation of objective findings, diagnosis, and patient management intervention.

Coding and Nomenclature

Diagnostic and procedural codes have been included in the ACP Parameters of Care only for general guidance. The codes listed may not be all-inclusive or represent the most current or specific choices. The inclusion of codes is not meant to supplant the use of current coding books or to relieve practitioners of their obligation to remain current in diagnostic and procedural coding. The ACP Committee on Parameters of Care and Committee on Nomenclature do not endorse the use of this document as a coding manual.

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Current Dental Terminology (CDT) codes, the recognized codes for dental/medical billing, are revised every 3 years (previously every 5 years) and should be reviewed and updated whenever the most recent version of the *American Dental Association (ADA) CDT Manual* is published.

Parameter Guidelines: Partial Edentulism

ICD-9-CM

Use additional codes to identify causes of Partial Edentulism (525.10-525.19)

525.50 Partial edentulism, unspecified
525.51 Partial edentulism, Class I
525.52 Partial edentulism, Class II
525.53 Partial edentulism, Class III
525.54 Partial edentulism, Class IV

The specific determinants of the PDI for Partial Edentulism can be found in the ICD-9-CM codes 521-525, some examples are listed below:

306.8 Other specified psychophysiological malfunction: Bruxism, Teeth grinding
521 Diseases of hard tissues of teeth
522 Diseases of pulp and periapical tissues
523 Gingival and periodontal diseases
524 Dentofacial anomalies, including malocclusion
525 Other diseases and conditions of the teeth and supporting structures

873.6 Tooth [broken] uncomplicated
873.7 Tooth [broken] complicated

A. Indications for care
1. Lack of mastication
2. Impaired speech
3. Esthetics
4. Impaired swallowing
5. Reduction of facial height
6. Lack of TM joint and orofacial muscle support
7. Psychosocial factors
8. Airway restriction
9. Unsatisfactory existing prostheses
10. Lack of intra- and interarch integrity and stability
11. Patient concerns

B. Therapeutic goals
1. Mastication
2. Improved speech
3. Esthetics
4. Improved swallowing
5. Restoration of facial height
6. TM joint and orofacial muscle support
7. Positive psychosocial response
8. Airway support
9. Improved comfort

10. Restoration of intra-arch and interarch integrity and stability by replacement of teeth and associated structures.
11. Address patient concerns

C. Risk factors affecting the quality of treatment
1. Dyskinesia
2. Preexisting systemic conditions
3. Hyperactive gag reflex
4. Xerostomia
5. Increased salivation
6. Periodontal disease
7. Endodontic complications
8. Alveolar bone loss
9. Occlusal factors
10. Skeletal factors
11. Inadequate tooth structure
12. Parafunctional habits
13. Caries susceptibility
14. Psychosocial factors

D. Standards of care
1. Preprosthetic preparation
   a. Nonsurgical
   b. Surgical
   c. Endodontic
   d. Periodontal
   e. Orthodontic
   f. TMD
2. Class I partially edentulous patient [525.51 ICD-9-CM]
   a. Removable partial denture [D5000-D5899 CDT-2005]
      1. Treatment of etiologic factors
      2. Diagnostic survey and design
      3. Abutment preparation (i.e., rest preparations, guide planes, etc.)
      4. Complete arch impression technique
      5. Articulation in maximum intercuspation on an articulator
      6. Insertion of prosthesis
      7. Post-treatment follow-up
   b. Fixed partial denture [D6200-D6999 CDT-2005]
      1. Treatment of etiologic factors
      2. Abutment preparation
      3. Impression – partial or complete arch
      4. Articulation in maximum intercuspation on an articulator
      5. Insertion of prosthesis
      6. Post-treatment follow-up
   c. Implant supported/retained restoration (see Implant Placement & Restoration Parameter) [D6000-D6199 CDT-2005]
3. Class II partially edentulous patient [525.52 ICD-9-CM]
   a. Removable partial denture [D5000-D5899 CDT-2005]
      1. Treatment of etiologic factors
      2. Diagnostic survey and design
      3. Abutment preparation (i.e., intra- and extracoronal restorations, rest preparations, guide planes, etc.)
      4. Complete arch impression technique
      5. Articulation in maximum intercuspation on an articulator

6. Insertion of prosthesis
7. Post-treatment follow-up

b. Fixed partial denture [D6200-D6999 CDT-2005]
1. Treatment of etiologic factors
2. Abutment preparation
3. Complete arch impression
4. Articulation in maximum intercuspation on an articulator
5. Insertion of prosthesis
6. Post-treatment follow-up

c. Implant supported/retained restoration (see Implant Placement & Restoration Parameter) [D6000-D6199 CDT-2005]

4. Class III partially edentulous patient [525.53 ICD-9-CM]

a. Removable partial denture [D5000-D5899 CDT-2005]
1. Treatment of etiologic factors
2. Diagnostic survey and design
3. Abutment preparation (i.e., intra- and extracoronal restorations, rest preparations, guide planes, intra- and extracoronal attachments, etc.)
4. Dual stage impression technique
5. Maxillomandibular record at the presenting occlusal vertical dimension
6. Facebow record and articulation on a semi-adjustable articulator
7. Framework try-in and assessment
8. Trial placement
9. Insertion of prosthesis
10. Post-treatment follow-up

b. Fixed partial denture [D6200-D6999 CDT-2005]
1. Treatment of etiologic factors
2. Abutment preparation
3. Complete arch impression
4. Maxillomandibular record at the presenting occlusal vertical dimension
5. Facebow record and articulation on a semi-adjustable articulator
6. Insertion of prosthesis
7. Post-treatment follow-up

c. Implant supported/retained restoration (see Implant Placement &109. Restoration Parameter) [D6000-D6199 CDT-2005]

5. Class IV partially edentulous patient [525.54 ICD-9-CM]

a. Removable partial denture [D5000-D5899 CDT-2005]
1. Accommodation to systemic conditions
2. Treatment of etiologic factors
3. Diagnostic survey and design
4. Establishment of therapeutic occlusal vertical dimension
5. Abutment preparation (i.e., intra- and extracoronal restorations, rest preparations, guide planes, intra- and extracoronal attachments, etc.)
6. Dual or multi-stage impression technique
7. Maxillomandibular record at the confirmed therapeutic occlusal vertical dimension and eccentric records as necessary
8. Facebow record and articulation on a semi-adjustable articulator
9. Framework try-in and assessment
10. Trial placement
11. Insertion of prosthesis
12. Post-treatment follow-up

b. Fixed partial denture [D6200-D6999 CDT-2005]
1. Accommodation to systemic conditions
2. Treatment of etiologic factors

3. Abutment preparation
4. Complete arch impression
5. Maxillomandibular record at the established occlusal vertical dimension and eccentric records as necessary
6. Facebow record and articulation on a semi- or fully adjustable articulator
7. Framework try-in and assessment
8. Insertion of prosthesis
9. Post-treatment follow-up

c. Implant supported/retained restoration (see Implant Placement & Restoration Parameter) [D6000-D6199 CDT-2005]

d. Treatment of terminal partial edentulism
1. Documentation of existing conditions
2. Informed consent
3. Long-term provisional restoration
4. Post-treatment follow-up
5. Patient education

E. Specialty performance assessment criteria
1. Favorable outcomes
a. Improved mastication
b. Improved speech
c. Improved esthetics
d. Improved swallowing
e. Restoration of facial height
f. Restored TM joint and orofacial muscle support
g. Positive psychosocial response
h. Improved airway support
i. Improved comfort
j. Satisfactory patient adaptation
k. Improved intra-arch and interarch integrity and stability.

2. Known risks and complications
a. Refractory patient response
b. Ulcerations
c. Speech alterations
d. Unacceptable esthetics
e. Unrealistic patient expectations
f. Materials failure/incompatibility
g. Biomechanically induced implant complications
h. Difficulty chewing and/or swallowing
i. TM joint and/or orofacial muscle dysfunction
j. Alterations in taste perception
k. Allergic response
l. Degradation of supporting structures

Selected References (Partial Edentulism Parameter)

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(Note: Additional references addressing fixed restorative techniques are contained in the Tooth Morphology Preparation & Modification Parameter. References for implant restorations are included in the Implant Placement & Restoration Parameter.)

5) Complete Edentulism Parameter

Preface

The diagnosis of complete edentulism establishes that a total debilitation of the dental apparatus has occurred. The complete loss of dentition affects a myriad of normal and essential human functions:

1. Inability to masticate
2. Reduction in digestive process
3. Reduction in mastication/enjoyment of food varieties and textures
4. Speech aberrations
5. Inability to incise

6. Absence and/or reduction in tooth display during smiling
7. Reduction in emotional display – happiness/sadness
8. Loss of self-esteem
9. Sexual dysfunction and avoidance
10. Increased effects of aging
11. Loss of support for orofacial musculature
12. Continual reduction in alveolar bone
13. Decrease in airway maintenance
14. Decrease in nutritional status

Historically, all patients who are completely edentulous have been grouped into a single diagnostic category and, thus, have been assigned a single therapeutic technique. This incorrect assumption has limited the treatment available to these patients. Classifying diagnostic categories enables selection of appropriate treatment.

The Prosthodontic Diagnostic Index (PDI) [ACP Patient Classifications System] for Complete Edentulism delineates four levels. The classification is assigned based upon consideration and evaluation of the following criteria:

1. Bone height – mandibular
2. Maxillomandibular relationship
3. Residual ridge morphology
4. Muscle attachments

By integrating the PDI, patients will have the opportunity to have the most appropriate therapy selected to address their clinical conditions. The four classes of complete edentulism are:

1. Class I – characterized by ideal or minimally compromised anatomic structures. All criteria are favorable.
2. Class II – characterized by moderately compromised supporting anatomic structures. This class is a continuation of the physical degradation of the denture-supporting structures and, in addition, is characterized by the early onset of systemic disease interactions, localized soft tissue factors, and patient management/lifestyle considerations.
3. Class III – characterized by substantially compromised supporting anatomic structures. This class displays the need for surgical revision of the denture-supporting structures to allow for adequate prosthodontic function. Additional factors now play a significant role in treatment outcomes.
4. Class IV – characterized by severely compromised supporting anatomic structures. This class displays the most debilitated edentulous condition wherein surgical reconstruction is indicated, but cannot always be accomplished due to the patient's health, desires, and past dental history. When surgical revision is not selected, prosthodontic techniques of a specialized nature must be used to achieve an adequate treatment outcome.

It must be noted that in the treatment of complete edentulism, patient attitude, cooperation, and compliance are of great importance in long-term success. The successful treatment for complete edentulism is a mutual effort between the prosthodontist and the patient. A refractory patient is one who presents with chronic complaints following appropriate therapy. In those instances where patient expectations exceed physical limitations, a mutually satisfactory result may not be possible through the completion of their treatment plan.

Implant therapy must be considered for the treatment of the completely edentulous mandibular arch. Clinical evidence demonstrates that significant reduction in alveolar atrophy/resorption can be achieved with dental implant therapy. In addition, implant therapy enhances the patient's ability to use the prosthesis successfully.

General Criteria and Standards

Informed consent: All prosthodontic procedures should be preceded by the patient's consent. Informed consent is obtained after the patient has been informed of the indications for the procedure(s), goals of treatment, the known benefits and risks of the procedure(s), the factor(s) that may affect the known risks and complications, the treatment options, the need for active maintenance by the patient, the need for future replacements and revisions, and the favorable outcome.
Documentation: Parameters of care for prosthodontic procedures include documentation of objective findings, diagnosis, and patient management intervention.

Coding and Nomenclature

Diagnostic and procedural codes have been included in the ACP Parameters of Care only for general guidance. The codes listed may not be all-inclusive or represent the most current or specific choices. The inclusion of codes is not meant to supplant the use of current coding books or to relieve practitioners of their obligation to remain current in diagnostic and procedural coding. The ACP Committee on Parameters of Care and Committee on Nomenclature do not endorse the use of this document as a coding manual.

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Parameter Guidelines: Complete Edentulism

ICD-9-CM

Use additional codes to identify cause of Complete Edentulism (525.10-525.26)

525.40 Complete edentulism, unspecified
525.41 Complete edentulism, Class I
525.42 Complete edentulism, Class II
525.43 Complete edentulism, Class III
525.44 Complete edentulism, Class IV

The specific determinants of the PDI for Complete Edentulism can be found in the ICD-9-CM codes 524-525, 528:

524 Dentofacial anomalies, including malocclusion
525 Other diseases and conditions of the teeth and supporting structures
528.7 Other disturbances of oral epithelium, including tongue
528.9 Other and unspecified diseases of the oral soft tissues

A. Indications for care
  1. Lack of mastication
  2. Impaired speech
  3. Esthetics
  4. Impaired swallowing
  5. Reduction of facial height
  6. Lack of TM joint and orofacial muscle support
  7. Psychosocial factors
  8. Airway restriction
  9. Unsatisfactory existing prostheses
  10. Chronic pain
  11. Patient concerns
B. Therapeutic goals
  1. Improved mastication
  2. Improved speech
  3. Improved esthetics
  4. Improved swallowing
  5. Restoration of facial height
  6. TM joint and orofacial muscle support
  7. Positive psychosocial response
  8. Improved airway support
  9. Improved comfort
  10. Address patient concerns
C. Risk Factors affecting the quality of treatment
  1. Dyskinesia
  2. Preexisting conditions
  3. Hyperactive gag reflex
  4. Xerostomia
  5. Increased salivation
  6. Psychosocial factors
D. Standards of care
  1. Class I edentulous patient [525.41 ICD-9-CM]
    a. Complete dentures [D5000-D5899 CDT-2005]
      1. Treatment of etiologic factors
      2. Single stage impression technique
      3. Maxillomandibular record in centric relation at the occlusal vertical dimension
      4. Articulation on a non-adjustable articulator
      5. Maximum intercuspation in centric relation
      6. Trial placement
      7. Insertion of prosthesis
      8. Post-treatment follow-up
    b. Implant-supported or -retained complete dentures – see criteria for Class III or IV complete edentulism. [D6000-D6199 CDT-2005]
    c. Maintenance of existing prosthesis [D5400-D5899 CDT-2005]
    d. Patient Education
  2. Class II edentulous patient [525.42 ICD-9-CM]
    a. Complete dentures [D5000-D5899 CDT-2005]
      1. Treatment of etiologic factors
      2. Dual stage impression technique using a custom impression tray
      3. Maxillomandibular record in centric relation at the occlusal vertical dimension
      4. Facebow record and articulation on a semi-adjustable articulator
      5. Maximum intercuspation in centric relation

6. Trial placement
7. Clinical remount to finalize planned occlusal scheme
8. Insertion of prosthesis
9. Post-treatment follow-up

b. Implant-supported or -retained complete dentures – see criteria for Class III or IV complete edentulism [D6000-D6199 CDT-2005]
c. Maintenance of existing prosthesis [D5400-D5899 CDT-2005]
d. Patient Education

3. Class III edentulous patient [525.43 ICD-9-CM]
   a. Conditions requiring preprosthetic preparation
      1. Nonsurgical
      2. Surgical
      3. Implants
   b. Complete dentures [D5000-D5899 CDT-2005]
      1. Treatment of etiologic factors
      2. Dual stage impression technique using a custom impression tray
      3. Maxillomandibular record in centric relation at the occlusal vertical dimension
      4. Facebow record and articulation on a semi-adjustable articulator
      5. Maximum intercuspation in centric relation
      6. Trial placement
      7. Clinical remount to finalize planned occlusal scheme
      8. Insertion of prosthesis
      9. Post-treatment follow-up
   c. Implant-supported/retained dentures (see Implant Placement & Restoration Parameter) [D6000-D6199 CDT-2005]
   d. Patient education
4. Class IV edentulous patient [525.44 ICD-9-CM]
   a. Conditions requiring preprosthetic preparation
      1. Nonsurgical
      2. Surgical
      3. Implants
   b. Complete dentures [D5000-D5899 CDT-2005]
      1. Treatment of etiologic factors
      2. Multi-stage impression technique using a modified custom impression tray, if needed
      3. Maxillomandibular record in centric relation at the occlusal vertical dimension
      4. Facebow record and articulation on a semi-adjustable articulator
      5. Maximum intercuspation in centric relation
      6. Trial placement
      7. Clinical remount to finalize planned occlusal scheme
      8. Insertion of prosthesis
      9. Post insertion modification (functional relines, processed soft liners, occlusal correction procedures, etc.)
      10. Extended post-treatment follow-up
   c. Implant-supported/retained dentures (see Implant Placement & Restoration Parameter) [D6000-D6199 CDT-2005]
   d. Patient education

E. Specialty performance assessment criteria
   1. Favorable outcomes
      a. Improved mastication
      b. Improved speech
      c. Improved esthetics
      d. Improved swallowing

e. Restoration of facial height
f. Restored TM joint and orofacial muscle support
g. Positive psychosocial response
h. Improved airway support
i. Improved comfort
j. Satisfactory patient adaptation

2. Known risks and complications
a. Refractory patient response
b. Ulcerations
c. Speech alterations
d. Unacceptable esthetics
e. Unrealistic patient expectations
f. Materials failure
g. Biomechanically induced implant complications
h. Difficulty chewing and/or swallowing
i. TM joint and/or orofacial muscle support
j. Alterations in taste perceptions

Selected References (Complete Edentulism Parameter)

This list of selected references is intended only to acknowledge some of the sources of information drawn upon in the preparation of this document. Citation of the reference material is not meant to imply endorsement of any statement contained in the reference material, or that the list is an exhaustive compilation of information on the topic. Readers should consult other sources to obtain a complete bibliography.

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6) Implant Placement and Restoration Parameter

Preface

The specialty of Prosthodontics is the specialty responsible for the diagnosis and treatment of complete and partial Edentulism. The prosthodontist is responsible for preparing a patient preprosthetically for subsequent prosthodontic procedures. Not only does a prosthodontist replace and repair teeth, but also prepares the patient to receive artificial tooth and tissue replacements. Prosthodontists are responsible for managing all aspects of the treatment of complete and partial edentulism regardless of the complexity of any adjunctive preprosthetic procedures required. When a tooth is or teeth are lost, the well-documented sequelae of loss of adjacent alveolar structures and the concomitant decrease in prosthetic function can now be delayed along with an increase in function versus conventional tissue-borne appliances. Dental implant therapy can be used to replace missing teeth and preserve alveolar bone.

A dental implant is a prosthetic device of alloplastic material implanted into the oral tissues beneath the mucosal and/or periosteal layer and on/or within the bone to provide retention and support of fixed or removable prostheses. The placement of a dental implant is part of a prosthodontic treatment plan that addresses the diagnosis of a missing tooth or teeth, and the treatment is the replacement of a tooth, multiple teeth, and/or contiguous structures surrounding the oral and facial region along with many extra-oral applications. The diagnosis for the need of a dental implant is a prosthodontic diagnosis that reflects all the usual criteria for tooth and contiguous structure replacement. Only after a prosthodontic need has been established is the surgical diagnosis made to determine if the prosthodontic need can be satisfied. The therapeutic purpose and value of a dental implant is to support and retain teeth and preserve remaining bone.

Thus, dental implant restoration is a prosthodontically driven procedure that requires extensive presurgical consultations and treatment planning. The prosthodontist is responsible for the placement of the dental implant according to the prescription of the prosthodontist or referring dentist. The prosthodontist is responsible for acquiring and/or conveying sufficient diagnostic information to ensure the accurate placement of dental implant(s) to maximize prosthodontic function. Sufficient presurgical consultations should identify alternative implant sites so that surgical flexibility is maintained to deal with unforeseen anatomic limitations. With the rapid advancements in soft tissue and bone augmentation, the placement of implants outside the normal anatomic location to support prosthodontic replacement is becoming less acceptable unless there has been informed consent by the patient for alternative implant location and angulation. Prosthodontists have the unique educational background and experience in both placement and restoration at the specialty level of education. By planning and creating the restoration, the prosthodontist has the advantage of placing the implant in the most favorable location to fulfill the patient's needs.

Because prosthodontists are the recognized specialists in tooth and contiguous structure replacement, prosthodontists must strive to position the implants in the most advantageous location and angulation for future prosthodontic procedures. The prosthodontist must evaluate the patient to determine the number, type, length, and location of the dental implants so that the prosthodontic restoration will remain healthy and functional. The prosthodontist, in cooperation with the patient, must remain flexible in the final prosthodontic reconstruction to account for surgical variability and anatomic limitations. It

is the responsibility of the prosthodontist to be familiar with the different types of implants because each system has its own intricacies and capabilities. The prosthodontist should be knowledgeable about any implant system recommended and/or used in patient treatment.

Initially, prosthodontic restorations supported and/or retained by implants have had the greatest impact on completely edentulous patients. In fact, the McGill Proclamation declares the two-implant mandibular overdenture as the first choice for the completely edentulous patient. Today implants can be used in the partially edentulous patient for a variety of applications. Whether it is the conservation of healthy abutment teeth by using single or multiple implant replacements of teeth instead of conventional fixed prosthodontics, or perhaps the reduction in prosthetically influenced alveolar resorption by implant-supported/retained complete dentures, the impact of implant prosthodontics will continue to improve the health and comfort of patients. Treatment of only the area of pathology without sacrificing or jeopardizing adjacent healthy tissues is now a reality.

A refractory patient is one who presents with chronic complaints following appropriate therapy. In those instances where patient expectations exceed physical limitations, a mutually satisfactory result may not be possible through the completion of their treatment plan.

General Criteria and Standards

Informed consent: All prosthodontic procedures should be preceded by the patient's consent. Informed consent is obtained after the patient has been informed of the indications for the procedure(s), goals of treatment, the known benefits and risks of the procedure(s), the factor(s) that may affect the known risks and complications, the treatment options, the need for active maintenance by the patient, the need for future replacements and revisions, and the favorable outcome.
Documentation: Parameters of care for prosthodontic procedures include documentation of objective findings, diagnosis, and patient-management intervention.

Coding and Nomenclature

Diagnostic and procedural codes have been included in the ACP Parameters of Care only for general guidance. The codes listed may not be all-inclusive or represent the most current or specific choices. The inclusion of codes is not meant to supplant the use of current coding books or to relieve practitioners of their obligation to remain current in diagnostic and procedural coding. The ACP Committee on Parameters of Care and Committee on Nomenclature do not endorse the use of this document as a coding manual.

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Parameter Guidelines: Implant Placement and Restoration

A. Indications for care
  1. Complete edentulism (see Complete Edentulism Parameter) [525.40-525.44 ICD-9-CM]
  2. Partial edentulism (see Partial Edentulism Parameter) [525.50-525.54 ICD-9-CM]
  3. Implant-specific indicators
    a. Adequate host bone [525.20-525.26 ICD-9-CM]
    b. Adequate soft tissue [528.71-528.72 ICD-9-CM]
    c. Prosthetic need [525.40-525.44, 525.50-525.54 ICD-9-CM]
    d. Maintenance of soft tissue architecture
    e. Alveolar bone preservation
    f. Improved function

B. Therapeutic goals
  1. Complete edentulism (see Complete Edentulism Parameter)
  2. Partial edentulism (see Partial Edentulism Parameter)
  3. Implant-specific goals
    a. Bone preservation
    b. Soft tissue preservation
    c. Prosthetic support and retention
    d. Improved form and function
    e. Improved esthetics
    f. Provision of adequate bone-borne occlusal support stops
    g. Limited pain
    h. Limited period of disability
    i. Achievement of uncomplicated healing
    j. Appropriate understanding and acceptance of diagnosis, treatment plan, and possible outcomes
    k. Minimally invasive surgery (no removal of non-regenerable tissues)

C. Risk factors affecting quality of treatment
  1. Complete edentulism (see Complete Edentulism Parameter)
  2. Partial edentulism (see Partial Edentulism Parameter)
  3. Implant-specific risk factors
    a. Bone factors (quantity and quality)
    b. Surgical
    c. Implant characteristics
    d. Anatomical considerations
    e. Presence of active periodontal disease
    f. Number of implants relative to number of teeth to be replaced
    g. Interarch distance
    h. Biomechanical loading factors
    i. Presence of local or systemic conditions which affect healing (e.g., history of radiation therapy, diabetes, etc.)
    j. Peri-implant tissue quality and contour
    k. Proximity of implant site to adjacent structures
    l. Existing and proposed occlusal factors
    m. Tobacco use
    n. Current and past pharmacological therapies

D. Standards of care
  1. Completely edentulous patient [525.40-525.44 ICD-9-CM]
    a. Pretreatment procedures
      1. Radiographic evaluation
      2. Articulated diagnostic casts, when indicated

b. Conditions requiring preprosthetic preparation
  1. Nonsurgical [D5850-D5851, D5875, D5899 CDT-2005]
  2. Surgical [D4263-D4276 CDT-2005]
c. Placement procedures [D6010, D6040, D6050 CDT-2005]
  1. Aseptic technique
  2. Appropriate surgical protocol
  3. Preoperative instructions
d. Removable complete denture [D6053, D6055 CDT-2005]
  1. Treatment of etiologic factors
  2. Dual-stage impression technique using a custom impression tray
  3. Abutment selection [D6056-D6057 CDT-2005]
  4. Maxillomandibular record in centric relation at the occlusal vertical dimension
  5. Facebow record and articulation on a semi-adjustable articulator
  6. Maximum intercuspation in centric relation
  7. Assessment of implant components and/or framework
  8. Trial denture evaluation
  9. Surgical template [D6190, D6199 CDT-2005]
  10. Clinical remount to finalize planned occlusal scheme
  11. Insertion of prosthesis
  12. Post-treatment follow-up
  13. Patient education
e. Fixed complete denture (metal-resin hybrid or metal-ceramic) [D6056-D6067 CDT-2005]
  1. Treatment of etiologic factors
  2. Impression
  3. Abutment selection
  4. Maxillomandibular record in centric relation at the occlusal vertical dimension
  5. Facebow record and articulation on a semi-adjustable articulator
  6. Maximum intercuspation in centric relation
  7. Surgical template [D6190, D6199 CDT-2005]
  8. Assessment of implant components and/or framework
  9. Prosthesis try-in and assessment
  10. Insertion of prosthesis
  11. Post-treatment follow-up
  12. Patient education

2. Partially edentulous patient [525.50-525.54 ICD-9-CM]
a. Pretreatment procedures
  1. Radiographic evaluation
  2. Articulated diagnostic casts
  3. Diagnostic wax-up
  4. Surgical template (see surgical standards) [D6190, D6199 CDT-2005]
b. Conditions requiring preprosthetic preparation
  1. Nonsurgical [D5850-D5851, D5875, D5899 CDT-2005]
  2. Surgical [D4263-D4276 CDT-2005]
c. Removable partial denture (implant RPD) [D6054 CDT-2005]
  1. Treatment of etiologic factors
  2. Diagnostic survey and design
  3. Tooth abutment preparation (i.e., intra- and extracoronal restorations, rest preparations, guide planes, intra- and extracoronal attachments, etc.)
  4. Implant abutment selection [D6055-D6067 CDT-2005]
  5. Dual or multi-stage impression technique
  6. Maxillomandibular record in centric relation
  7. Facebow record and articulation on a semi-adjustable articulator

8. Implant component try-in
9. Framework try-in and assessment
10. Trial placement
11. Insertion of prosthesis
12. Post-treatment follow-up

d. Fixed partial denture [D6056-D6077,D6079 CDT-2005]
1. Treatment of etiologic factors
2. Abutment selection [D6056,D6057 CDT-2005]
3. Complete arch impression
4. Maxillomandibular record at the established occlusal vertical dimension and eccentric records as necessary
5. Facebow record and articulation on a semi- or fully adjustable articulator
6. Framework try-in and assessment
7. Insertion of prosthesis
8. Post-treatment follow-up
9. Patient education

e. Single tooth restoration [D6058-D6067 CDT-2005]
1. Treatment of etiologic factors
2. Abutment selection [D6056, D6057 CDT-2005]
3. Impression
4. Maxillomandibular record
5. Try-in and assessment
6. Insertion of prosthesis
7. Post-treatment follow-up
8. Patient education

E. Specialty Performance Assessment
1. Favorable outcomes
a. Completely edentulous patient (see Complete Edentulism Parameter)
b. Partially edentulous patient (see Partial Edentulism Parameter)
c. Implant specific
1. Long-term preservation of supporting bone
2. Establish bone-borne support stops
3. Soft tissue preservation
4. Improved prosthetic support and retention
5. Improved form and function
6. Implant(s) capable of supporting a prosthesis for a minimum of five years
7. Bone height loss of less than 0.2 mm annually following the first year of service
8. No evidence of peri-implant radiolucency
9. Ease of maintenance
10. Improved esthetics

2. Known risks and complications
a. Completely edentulous patient (see Complete Edentulism Parameter)
b. Partially edentulous patient (see Partial Edentulism Parameter)
c. Implant specific
1. Surgical
2. Anesthesia, paresthesia, hyperesthesia, hypoesthesia
3. Acute and/or chronic infection
4. Unanticipated bony deficiency
5. Dental injury during surgery
6. Injury to adjacent teeth
7. Nasal or sinus fistula
8. Hemorrhage

9. Prolonged period of disability
10. Unanticipated repeat oral surgery
11. Loss of implant prior to restoration
12. Loss of implant after restoration
13. Loss of supporting bone
14. New or increased pain
15. Neuropathy and/or paresthesia
16. Implant placement in an unfavorable prosthodontic location
17. Materials failure
18. Biomechanical implant overload
19. Compromised phonetics
20. Compromised esthetics
21. Increased probing depths
22. Reduction and/or loss of use of current prosthesis during entire healing phase
23. Inability of patient to adapt to new implant supported/retained prosthesis

Selected References (Implant Placement and Restoration Parameter)

This list of selected references is intended only to acknowledge some of the sources of information drawn on in the preparation of this document. Citation of the reference material is not meant to imply endorsement of any statement contained in the reference material, or that the list is an exhaustive compilation of information on the topic. Readers should consult other sources to obtain a complete bibliography.

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7) Tooth Preparation and Modification Parameter

Preface

The preparation and modification of teeth are an essential part of the specialty of prosthodontics. Teeth are the foundation of many prosthodontic therapies; thus, the diagnosis and treatment of individual tooth structure must be accomplished within the scope of the overall prosthodontic therapy.

General Criteria and Standards (See Introduction)

Informed Consent: All prosthodontic procedures should be preceded by the patient's consent. Informed consent is obtained after the patient has been informed of the indications for the procedure(s), goals of treatment, the known benefits and risks of the procedure(s), the factor(s) that may affect the known risks and complications, the treatment options, the need for active maintenance by the patient, the need for future replacements and revisions, and the favorable outcome.
Documentation: Parameters of care for prosthodontic procedures include documentation of objective findings, diagnosis, and patient-management intervention.

Coding and Nomenclature

Diagnostic and procedural codes have been included in the ACP Parameters of Care only for general guidance. The codes listed may not be all-inclusive or represent the most current or specific choices. The inclusion of codes is not meant to supplant the use of current coding books or to relieve practitioners of their obligation to remain current in diagnostic and procedural coding. The ACP Committee on Parameters of Care and Committee on Nomenclature do not endorse the use of this document as a coding manual.

The diagnostic and procedural codes listed throughout this section may not be all-inclusive and should serve only as practice guidelines. ICD-9-CM (*International Classification of Diseases, Ninth Revision, Clinical Modification)* diagnostic codes may change yearly and must be reviewed and updated annually to ensure accuracy. Specific diagnoses must be obtained from a current, recognized ICD-9-CM code source and substantiated by documentation in the dental record. Procedural codes listed throughout this section serve as a guide, which may be applicable to the treatment performed or management modality chosen. These may not be the most recent, applicable, or acceptable codes. Some dental/medical insurance providers have billing conventions unique to their organizations. It is the provider's responsibility to be aware of these unique situations.

Current Procedural Terminology (CPT), the recognized codes for dental/medical billing, are revised yearly and must be reviewed and updated annually to ensure accuracy. The recent codes are accepted by dental/medical insurance providers and should be obtained from the current year's version of the *American Medical Association (AMA) CPT Manual*. *Current Procedural Terminology* © 2005 American Medical Association. All rights reserved.

Current Dental Terminology (CDT) codes, the recognized codes for dental/medical billing, are revised every 3 years (previously every 5 years) and should be reviewed and updated whenever the most recent version of the *American Dental Association (ADA) CDT Manual* is published. *Current Dental Terminology* © 2002, 2004 American Dental Association. All rights reserved.

Parameter Guidelines: Tooth Preparation and Modification

Please refer to the appropriate parameter of completely dentate, partial edentulism, or complete edentulism for specific diagnostic and treatment codes.

A. Indications for care
  1. Loss of tooth structure/integrity
    a. Caries
    b. Attrition

- *c.* Erosion
- *d.* Abrasion
- *e.* Abfraction
- *f.* Fractures/microfractures/cracks
- *g.* Endodontic therapy

2. Intra-arch and interarch integrity
   - *a.* Mobility/stabilization
   - *b.* Diastema/interproximal contact closures
   - *c.* Tooth malposition
   - *d.* Loss of vertical dimension of occlusion
   - *e.* Esthetics
   - *f.* Pathogenic occlusion
   - *g.* Fixed or removable partial denture and overdenture tooth abutments
   - *h.* Failed preexisting restorations
   - *i.* Correction of congenital abnormalities
   - *j.* Tooth morphology not acceptable for prosthodontic design
   - *k.* Patient concerns

B. Therapeutic goals
1. Improved mastication
2. Improved speech
3. Improved esthetics
4. Improved swallowing
5. Restoration of facial height
6. TM joint and orofacial muscle support
7. Positive psychosocial response
8. Airway support
9. Improved comfort
10. Improved tooth form and function
11. Restore intra-arch and interarch integrity and stability
12. Maintain or improve periodontal health
13. Improved prosthetic retention, stability and support.

C. Risk factors affecting quality of treatment
1. Dyskinesia
2. Preexisting systemic conditions
3. Hyperactive gag reflex
4. Xerostomia
5. Increased salivation
6. Periodontal disease
7. Endodontic complications
8. Occlusal factors
9. Skeletal factors
10. Inadequate tooth structure
11. Parafunctional habits
12. Caries susceptibility
13. Psychosocial factors
14. Preexisting tooth position and alignment
15. Patient concerns

D. Standards of care
1. Preprosthetic preparation
   - *a.* Nonsurgical
   - *b.* Surgical
   - *c.* Endodontic

d. Periodontal
e. Orthodontic
f. TMD

2. Treatment of etiologic factors
3. Intracoronal and extracoronal restorative procedures
4. Post-treatment follow-up
5. Patient education

E. Specialty performance assessment criteria

1. Favorable outcomes
a. Improved mastication
b. Improved speech
c. Improved esthetics
d. Improved swallowing
e. Restoration of facial height
f. Restored TM joint and orofacial muscle support
g. Positive psychosocial response
h. Improved airway support
i. Improved comfort
j. Satisfactory patient adaptation
k. Improved intra-arch and interarch integrity and stability
l. Improved tooth form and function
m. Improved periodontal health
n. Improved prosthetic support or retention

2. Known risks and complications
a. Refractory patient response
b. Speech alterations
c. Unacceptable esthetics
d. Unrealistic patient expectations
e. Materials failure/incompatibility
f. Difficulty chewing and/or swallowing
g. TM joint and/or orofacial muscle dysfunction
h. Alterations in taste perception
i. Allergic response
j. Endodontic complications
k. Periodontal complications
l. Increased caries susceptibility
m. Dentinal sensitivity
n. Tongue/ cheek biting
o. Pain

Selected References for Tooth Modification Parameter (See Introduction)

This list of selected references is intended only to acknowledge some of the sources of information drawn upon in the preparation of this document. Literature references for this parameter cover all areas of dentistry and extend to techniques not solely associated with the specialty. Members are encouraged to be conversant with the literature for each and every procedure attempted. The following reading list covers those areas most often associated with prosthodontics. Citation of the reference material is not meant to imply endorsement of any statement contained in the reference material, nor that the list is an exhaustive compilation of information on the topic. Readers should consult other sources to obtain a complete bibliography.

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8) Esthetics Parameter

Preface

Esthetic dentistry encompasses those procedures designed to enhance and improve form and function in addition to the cosmetic appearance of the maxillofacial region. Esthetic dentistry procedures are performed on both hard and soft tissue to either subjectively or objectively address patient concerns. Although prosthodontists feel that all treatment is to be rendered in an esthetic manner, there are times when treatment is performed solely to enhance and produce esthetic goals. As in all prosthodontic procedures, a thorough history and examination must be completed. Esthetic treatment is predicated upon case selection, treatment, and patient expectations.

Perceptions of esthetic needs may be highly subjective. Therefore, this parameter suggests that form and appearance may be subjectively or objectively assessed in a qualitative or quantitative manner. The irreversibility of many esthetic procedures requires that the patient be fully aware of future additional and/or alternative treatments if their initial esthetic goals are not met. However, it remains the prosthodontist's responsibility and obligation not to exceed normal physiologic limits of the patient in pursuit of an elective goal. The proper selection of treatment occurs through a comprehensive dialogue between the prosthodontist and the patient in which both subjective and objective evaluations are used to determine appropriateness of treatment and thus enable the assumption of a reasonable risk/benefit ratio.

The elective nature of esthetic procedures requires that the patient be thoroughly educated about possible risks and adverse consequences along with the need for dedicated maintenance procedures. Many approaches are possible in the prosthodontic management of esthetic problems; thus, the prosthodontist should make appropriate referrals to other health care providers for both consultation and treatment when indicated. The purpose of this parameter is to help with the identification of factors affecting risks and standards of care, indications of favorable outcomes, and known risks and complications for the majority of prosthodontic esthetic procedures.

General Criteria and Standards

Informed consent: All elective irreversible esthetic procedures should be preceded by the patient's consent. Informed consent is obtained after the patient has been informed of the indications for the procedure(s), the goals of treatment, the known benefits and risks of the procedure(s), the factors that may affect the known risks and complications, the treatment options, the need for active maintenance by the patient, the need for future replacement/revisions, and the favorable outcome.
Documentation: Parameters of care for the prosthodontic procedures include documentation of objective findings, diagnosis, and patient management intervention.

Coding and Nomenclature

Diagnostic and procedural codes have been included in the ACP Parameters of Care only for general guidance. The codes listed may not be all-inclusive or represent the most current or specific choices. The inclusion of codes is not meant to supplant the use of current coding books or to relieve practitioners of their obligation to remain current in diagnostic and procedural coding. The ACP Committee on Parameters of Care and Committee on Nomenclature do not endorse the use of this document as a coding manual.

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Parameter Guidelines: Esthetics

Please refer to the appropriate parameter of completely dentate, partial edentulism, or complete edentulism for specific diagnostic and treatment codes.

A. Indications for care
  1. Patient concerns
  2. Unacceptable tooth morphology
    a. Wear
    b. Congenital abnormalities
    c. Surface texture
  3. Color
  4. Diastema/interproximal contacts/closures
  5. Tooth malposition
  6. Inadequate crown length due to passive eruption
  7. Unesthetic restorations
  8. Unacceptable gingival architecture

B. Therapeutic goals
  1. Address patient concerns
  2. Improve esthetics
  3. Positive psychosocial response
  4. Improve tooth form
  5. Maintain function
C. Risk factors affecting quality of treatment
  1. Unrealistic patient expectations
  2. Lack of clear communication
  3. Existing systemic disease
  4. Periodontal disease
  5. Endodontic complications
  6. Occlusal factors
  7. Tooth position and alignment
  8. Skeletal factors
  9. Inadequate tooth structure
  10. Soft/hard tissue architecture
  11. Lip and cheek anatomy
  12. Orofacial muscular complications
  13. Psychosocial factors
  14. Parafunctional habits
D. Standards of care
  1. Patient education
  2. Informed consent
  3. Preprosthetic preparation
    a. Nonsurgical
    b. Surgical
    c. Endodontic
    d. Periodontal
    e. Orthodontic
    f. TMD
    g. Plastic surgical
    h. Other referral
  4. Intracoronal and extracoronal restorative procedures
  5. Fixed, removable, and implant prosthodontic procedures
  6. Post-treatment follow-up care
E. Specialty performance assessment criteria
  1. Favorable outcomes
    a. Patient concerns addressed
    b. Improved esthetics
    c. Positive psychosocial response
    d. Satisfactory patient adaptation
    e. Improved tooth form
    f. Maintained function
  2. Known risks and complications
    a. Unrealistic patient expectations
    b. Refractory patient response
    c. Speech alterations
    d. Unacceptable esthetics
    e. Materials failure/incompatibility
    f. Functional limitations
    g. TM joint and/or orofacial muscle dysfunction

h. Allergic response
i. Endodontic complications
j. Periodontal complications
k. Irreversibility of procedures
l. Unknown longevity of materials
m. Lack of regular professional maintenance
n. Increased incidence of retreatment
o. Increased caries risk
p. Tooth sensitivity

Selected References (Esthetics Parameter)

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9) Temporomandibular Disorders Parameter

Preface

"Temporomandibular disorders" (TMD) is the most universal term being used today to represent a host of problems associated with the temporomandibular joint, the surrounding masticatory and related musculature, and other contiguous tissue components. Patients with these problems are appropriately treated by prosthodontists.

General Criteria and Standards

Informed Consent: All prosthodontic procedures should be preceded by the patient's consent. Informed consent is obtained after the patient has been informed of the indications for the procedure(s), goals of treatment, the known benefits and risks of the procedure(s), the factor(s) that may affect the known risks and complications, the treatment options, the need for active maintenance by the patient, the need for future replacements and revisions, and the favorable outcome.
Documentation: Parameters of care for prosthodontic procedures include documentation of objective findings, diagnosis, and patient management intervention.

Coding and Nomenclature

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Parameter Guidelines: Temporomandibular Disorders

ICD-9-Codes

306.8 Other specified psychophysiological malfunction: bruxism, teeth grinding
524.2 Anomalies of dental arch relationship
524.3 Unspecified anomaly of tooth position
524.5 Dental facial functional abnormalities
524.6 Temporomandibular joint disorder
524.76 Dentoalveolar anomalies (occlusal plane anomalies)

729.1 Myalgia and myostis, unspecified

830 Dislocation of jaw
848.1 Other and ill-defined strains and sprains of jaw

Please refer to the appropriate parameter of completely dentate, partial edentulism, and complete edentulism for specific diagnostic and treatment codes.

A. Indicators for care
  1. Orofacial pain
  2. TM joint pain
  3. Myofacial pain
  4. Diminished function
  5. Limitation in range of motion
  6. Inability to masticate
  7. Change in skeletal and/or dental relationships
  8. Traumatic injuries
  9. Stress, mental and physical
  10. Perceived hearing loss
  11. Patient concerns

B. Therapeutic goals
  1. Reduction/management of pain
  2. Improved function range of motion
  3. Provide intra-arch and interarch stability and support
  4. Provide TM joint and orofacial support
  5. Address patient concerns
  6. Patient education

C. Risk factors affecting quality of treatment
  1. Recalcitrant acute pain
  2. Pain unresponsive to treatment
  3. Ongoing, limited, or decreasing function
  4. Instability of stomatognathic system
    a. Temporomandibular joint
    b. Neuromuscular system
    c. Dentition
    d. Maxillomandibular relation
    e. Heightened occlusal awareness

5. Preexisting systemic conditions
6. Patient noncompliance with prescribed treatment
7. Chronic pain behavior
8. Psychosocial considerations
9. Esthetic considerations
10. Periodontal considerations
11. Parafunctional habits
12. Previous treatment
13. Swallowing habits
14. Tongue position

D. Standards of care
1. Comprehensive clinical prosthodontic assessment [D0150, D0160, D0470, D0999 CDT-2005]
2. Acute TMD Disorder [D0140, D7820, D7830, D7880, D7899, D7630, D9610 CDT 2005]
3. Evaluation of previous treatment [D0170 CDT 2005]
4. Appropriate diagnostic imaging [D0321, D0322, D0330, D0340, D0350 CDT 2005]
5. Appropriate consultations/referrals
6. Monitoring of adjunctive therapy [D0170 CDT 2005]
7. Occlusal therapy, which may include: [(D2710-D2799, D7780, D8210, D8220, D9920, D9930, D9940, D9950-D9952, D9999 CDT 2005]
   a. Orthotic devices
   b. Occlusal equilibration
   c. Provisional restorations
   d. Final restorations
8. Maintenance [D0170 CDT 2005]
9. Patient education
10. Informed consent
11. Pharmacological therapy [D9610, D9630 CDT 2005]
12. Physical therapy [97014, 97032, 97001, 97002, 97110, 97014, 97504, 97010, 97039, 97112, 97520 CPT 2005]
13. Post-treatment follow-up care

E. Specialty performance assessment criteria
1. Favorable outcomes:
   a. Reduction/management of pain
   b. Improved function
   c. Improved intra-arch and interarch stability and support
   d. Improved TM joint and orofacial muscle support
   e. Acceptable patient compliance
2. Known risks and complications
   a. Persistent or increased pain
   b. Decreased stomatognathic function
   c. Unanticipated motor or sensory nerve abnormality
   d. Prolonged period of disability
   e. Psychological sequelae
   f. Recurrence of symptoms
   g. Postural limitations
   h. Need for continued orthotic therapy
   i. Unfulfilled patient expectations

Selected References (Temporomandibular Disorders Parameter)

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endorsement of any statement contained in the reference material, or that the list is an exhaustive compilation of information on the topic. Readers should consult other sources to obtain a complete bibliography.

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10) Upper Airway Sleep Disorders (UASDs) Parameter

Preface

The treatment of UASDs (severe snoring – Upper Airway Resistance Syndrome [UARS], and Obstructive Sleep Apnea [OSA]) falls into three main categories: oral devices, constant positive airway pressure (CPAP), and surgery. The prosthodontist is qualified to design and fabricate various types of oral devices and use them in the treatment and management of these disorders. These devices mechanically reposition the anatomy to maintain airway potency by holding the tongue or mandible in a forward position or stabilize the soft palate. Because these disorders can be serious health risks, they must be diagnosed, documented, and evaluated by qualified physicians and their progress monitored. This teamwork approach is mandatory. These disorders affect 50–100 million people and secondarily affect their bed partners.

General Criteria and Standards

Informed Consent: All prosthodontic procedures should be preceded by the patient's consent. Informed consent is obtained after the patient has been informed of the indications for the procedure(s), goals of treatment, the known benefits and risks of the procedure(s), the factor(s) that may affect the known risks and complications, the treatment options, the need for active maintenance by the patient, the need for future replacements and revisions, and the favorable outcome.
Documentation: Parameters of care for prosthodontic procedures include documentation of objective findings, diagnosis, and patient management intervention.

Coding and Nomenclature

Diagnostic and procedural codes have been included in the ACP Parameters of Care only for general guidance. The codes listed may not be all-inclusive or represent the most current or specific choices. The inclusion of codes is not meant to supplant the use of current coding books or to relieve practitioners of their obligation to remain current in diagnostic and procedural coding. The ACP Committee on Parameters of Care and Committee on Nomenclature do not endorse the use of this document as a coding manual.

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Parameter Guidelines: Sleep Disorders

ICD-9-CM

780.50 Sleep disturbances, unspecified

A. Indications for care
  1. Severe snoring (upper airway resistance syndrome [UARS]) without Hypoxia or Apnea
  2. UASDs
  3. Airway restriction during sleep
  4. Psychosocial factors
  5. Anatomical abnormalities (obesity, tumors, polyps)

B. Therapeutic goals
  1. Improve sleep quality and quantity
  2. Maintain airway potency during sleep
  3. Positive psychosocial response
  4. Reduction/management of UARS and OSA

C. Risk factors affecting quality of treatment
  1. Restricted opening
  2. Instability of the stomatognathic system
    a. Temporomandibular joint
    b. Neuromuscular
    c. Dentition
  3. Periodontal disease
  4. Preexisting systemic diseases
  5. Patient noncompliance with prescribed treatment
  6. Parafunctional habits

7. Psychosocial factors
8. Inadequate supporting structures
   a. Tooth form
   b. Number of teeth
   c. Residual ridge
9. Hyperactive gag reflex
10. Skeletal factors
11. Anatomical abnormalities (polyps, tumors, hypertrophy)

D. Standards of care

[D9999 CDT 2005] Unspecified adjunctive procedure by report

1. Coordination with sleep physician
   a. Physician prescription (must be prescribed by physician since this is a medical problem being treated appropriately by a dentist)
2. Comprehensive clinical assessment
3. Trial procedures
   a. Trial devices
   b. Adjustment procedures
4. Tongue retaining devices
5. Mandibular advancement devices
6. Soft palate lifting devices
7. Oral orthotic device [CPT E1399]
8. Patient education
9. Post-treatment follow-up care

E. Specialty performance assessment criteria

1. Favorable outcomes
   a. Improved sleep quality and quantity
   b. Reduction in daytime sleepiness
   c. Acceptable patient compliance
   d. Positive psychosocial response
   e. Improved airway support during sleep
2. Known risks and complications
   a. Ineffectiveness of treatment
   b. TMD – joint or muscle dysfunction
   c. Tooth pain or mobility
   d. Increased salivation
   e. Noncompliance
   f. Material failure
   g. Allergic response
   h. Alterations in arch-to-arch relation
   i. Soft-tissue irritability

Selected References [Upper Airway Sleep Disorders (UASDs) Parameter]

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Triplett WW, Lund BA, Westbrook PR, et al: Obstructive sleep apnea syndrome in patients with class II malocclusion. Mayo Clin Proc 1989;64:644-652
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11) Maxillofacial Prosthetic Parameter

Preface

Maxillofacial prosthetics typically involves the prosthodontic treatment of acquired defects, congenital defects, and developmental defects. Many maxillofacial prosthetic procedures follow surgical resections requiring the replacement of anatomical structures with prostheses. Whereas maxillofacial prosthetic instruction is inherent in the training of educationally qualified prosthodontists, it is important to note that certain prosthodontists have taken additional formalized and accredited education and training in the field of maxillofacial prosthetics. Often, the special skills acquired by these prosthodontists are required to achieve optimum patient care.

Treatment of these patients requires substantial adjunctive therapy using a multidisciplinary approach and interaction with the medical community. The reading lists do not encompass all of this

complexity. Interested parties are encouraged to cross-reference literature cited in this document as well as other sources.

This parameter is divided into specific areas detailing the guidelines for each segment. The evaluation and treatment of intraoral defects (Parameters A – F) utilize the Comprehensive Clinical Assessment, the Completely Dentate, the Partial Edentulism, and the Complete Edentulism Parameters where appropriate. The majority of maxillofacial prosthetic patients will be classified Class IV using the PDI (Prosthodontic Diagnostic Index) Classification system. Treatment of these patients requires experience at or beyond the competence level in maxillofacial prosthetics.

These subparameters cover:

A. Maxillary defect
  1. Acquired
  2. Congenital or developmental
B. Mandibular defect
  1. Acquired
  2. Congenital or developmental
C. Palatopharyngeal incompetence and insufficiency
D. Soft palate defect
  1. Acquired
  2. Congenital or developmental
E. Composite resection defect
F. Traumatic injury
G. Auricular defect
  1. Acquired
  2. Congenital or developmental
H. Orbital defects – evisceration, enucleation, exenteration
I. Nasal defect—acquired
J. Pre- and post-radiation therapy care
K. Pre- and post-chemotherapy care
L. Implant retained extraoral prosthesis

General Criteria and Standards

Informed Consent: All prosthodontic procedures should be preceded by the patient's consent. Informed consent is obtained after the patient has been informed of the indications for the procedure(s), goals of treatment, the known benefits and risks of the procedure(s), the factor(s) that may affect the known risks and complications, the treatment options, the need for active maintenance by the patient, the need for future replacements and revisions, and the favorable outcome.

Documentation: Parameters of care for prosthodontic procedures include documentation of objective findings, diagnosis, and patient management intervention.

Coding and Nomenclature

Diagnostic and procedural codes have been included in the ACP Parameters of Care only for general guidance. The codes listed may not be all-inclusive or represent the most current or specific choices. The inclusion of codes is not meant to supplant the use of current coding books or to relieve practitioners of their obligation to remain current in diagnostic and procedural coding. The ACP Committee on Parameters of Care and Committee on Nomenclature do not endorse the use of this document as a coding manual.

The diagnostic and procedural codes listed throughout this section may not be all-inclusive and should serve only as practice guidelines. ICD-9-CM (*International Classification of Diseases, Ninth Revision, Clinical Modification)* diagnostic codes may change yearly and must be reviewed and updated annually to ensure

accuracy. Specific diagnoses must be obtained from a current, recognized ICD-9-CM code source and substantiated by documentation in the dental record. Procedural codes listed throughout this section serve as a guide, which may be applicable to the treatment performed or management modality chosen. These may not be the most recent, applicable, or acceptable codes. Some dental/medical insurance providers have billing conventions unique to their organizations. It is the provider's responsibility to be aware of these unique situations.

Current Procedural Terminology (CPT), the recognized codes for dental/medical billing, are revised yearly and must be reviewed and updated annually to ensure accuracy. The recent codes are accepted by dental/medical insurance providers and should be obtained from the current year's version of the *American Medical Association (AMA) CPT Manual*. *Current Procedural Terminology* © 2005 American Medical Association. All rights reserved.

Current Dental Terminology (CDT) codes, the recognized codes for dental/medical billing, are revised every 3 years (previously every 5 years) and should be reviewed and updated whenever the most recent version of the *American Dental Association (ADA) CDT Manual* is published. *Current Dental Terminology* © 2002, 2004 American Dental Association. All rights reserved.

11A) Maxillary Defect

1. Acquired
2. Congenital and Developmental

The maxilla functions as a partition between the nasal and oral cavities. Surgical resection of tumors, the tumors themselves, or other treatment may cause communication between these two cavities. Various types of obturator prostheses can function to re-establish this partition. The educationally qualified prosthodontist is best trained to evaluate the patient for prosthetic restoration of the defect (potential or actual). Secondary surgical reconstruction procedures after primary tumor ablation can improve postsurgical anatomy and enhance prosthesis stability and success. A prosthesis can often restore the patient to normal function.

Areas of consideration and reference include but are not limited to:

Obturator Prosthesis, Interim [D5936 CDT-2005, 21079 CPT-2005]
Obturator Prosthesis, Definitive [D5932 CDT-2005, 21080 CPT-2005]
Obturator Prosthesis, Surgical [D5931 CDT-2005, 21076 CPT-2005]
Maxillary Resection, Reconstruction Prosthesis
Maxillofacial Stabilizing Prosthesis [21089 CPT-2005]
Palatal Lift Prosthesis [D5955 CDT-2005, 21083 CPT-2005]
Resection Prosthesis
Speech Aid, Modification [21084 CPT-2005]
Speech Aid, Pediatric [D5953 CDT-2005, 21084 CPT-2005]
Speech Aid, Adult [D5952 CDT-2005, 21084 CPT-2005]
Surgical splint [D5988 CDT-2005, 21085 CPT-2005]
Surgical stent [D5982 CDT-2005]
Trismus Device [D5937 CDT-2005]

Parameter Guidelines: Maxillary Defect

ICD-9 Codes – Acquired

117.0–117.9
140.0–140.9
160.0–160.9
170.0
171.0
210.0–210.9

237.70–237.72
237.9
446.3
446.4
526.0–526.9
744.81–744.89
784.49
787.2
802.2–802.9

ICD-9 Codes – Congenital Developmental

356.0
356.9
357.0–357.9
358.0
358.9
359.0
359.1
359.2
744.81–744.89
744.9
749.0–749.04
749.10–749.14
749.20–749.25
750.10–750.9
784.49

A. Indications for care
  1. Altered and unintelligible speech
  2. Loss of/or difficulty with mastication
  3. Loss of/or difficulty with deglutition
  4. Oronasal or oropharyngeal communication
  5. Airway management
  6. Loss of dental-alveolar and associated structures
  7. Loss of patient's self-esteem and quality of life
B. Therapeutic goals
  1. Intelligible speech
  2. Improved mastication
  3. Improved deglutition
  4. Separation of oro-nasal-pharyngeal regions
  5. Improved health of oral and nasal structures
  6. Modify and/or substitute for dento-alveolar structures
  7. Improved patient's self-esteem and quality of life
  8. Improved postsurgical facial form
C. Risk factors affecting quality of treatment (severity factors that increase risk and the potential for known complications)
  1. Presence of disease
  2. Size and location of defect and presence or lack of structure within the defect
  3. Inadequate remaining supporting structures—inadequate alveolus or tooth form/numbers, strategic position (or lack) of teeth
  4. Radiation therapy-xerostomia, altered hard and soft tissues
  5. Chemotherapy

6. Limitation of opening—scar contracture or trismus
7. Compromised or missing opposing dentition
8. Hyperactive gag reflex
9. Psychosocial factors
10. Caries susceptibility
11. Occlusal factors, to include altered mandibular envelope of motion, and/or altered and restricted mandibular movement
12. Preexisting systemic conditions
13. Parafunctional habits
14. Skeletal factors
15. Neurological alterations to include changes in sensory input and neuromuscular function
16. Periodontal/endodontic complications
17. Saliva and salivary gland alterations

D. Standards of care
1. Comprehensive clinical assessment
2. Preprosthetic preparation
   a. Appropriate review of medical history
   b. Appropriate consultation with physician/surgeon
   c. Appropriate oral surgical evaluation
   d. Appropriate endodontic evaluation
   e. Appropriate periodontic evaluation
   f. Appropriate dental specialty review
   g. Implant evaluation
3. Placement of obturator prostheses
   a. Surgical obturator
   b. Interim obturator
   c. Definitive obturator
4. Adjunctive dental care to support or retain prosthesis
5. Surgical revision or reconstruction
6. Preprosthetic preparation
   a. Nonsurgical
   b. Surgical
   c. Endodontic
   d. Periodontal
   e. Orthodontic
7. Direct or perform intracoronal and extracoronal restorative procedures
8. Education in proper prosthesis maintenance
9. Post-treatment follow-up

E. Specialty performance assessment
1. Favorable outcomes
   a. Improved speech
   b. Improved mastication
   c. Improved deglutition
   d. Improved esthetics
   e. Improved self-image
   f. Restoration of facial height and support
   g. Airway support
   h. Improved control of saliva and mucous
   i. Support to TM joint and orofacial muscles
   j. Satisfactory patient adaptation
2. Known risks and complications
   a. Recurrence or progression of the disease
   b. Difficulties with speech, mastication, deglutition

c. Unstable/unretained prosthesis
d. Tissue changes requiring modification/refabrication of prosthesis
e. Degradation of supporting dental or loss of anatomical structures
f. Fluid egress around obturator
g. Unrealistic expectations
h. Lack of patient compliance or understanding
i. Ulcerations
j. Alterations in taste perception
k. Endodontic/periodontal complications
l. Material failure/incompatibility
m. Continued negative self-image
n. Nasal regurgitation
o. Compromise of facial support
p. Loss of integration of implants secondary to adjunctive radiation therapy

11B) Mandibular Defect

1. Acquired
2. Congenital and Developmental

Resection or loss of a portion of the mandible can result in a variety of functional deficits that are dependent on the extent of the defect (surgery, radiation, trauma), the concomitant therapy, and the timing of rehabilitative efforts. The educationally qualified prosthodontist is best trained to evaluate the defect and to coordinate and manage the design and fabrication of prostheses to compensate for the resulting functional loss. Prostheses may be fabricated for either a maxillary, mandibular, or combination defect. Secondary surgical reconstruction procedures to include osseointegration reconstruction after tumor removal can improve post-surgical anatomy and thus enhance prosthesis stability and success. The prostheses can guide mandibular movement and assist in restoring the functions of mastication, deglutition, and speech, as well as restoring more normal facial form.

Areas of consideration and reference include but are not limited to:

Mandibular Reconstruction Prosthesis [21081CPT-2005]
Mandibular Resection Prosthesis (w/guide) [D5934 CDT-2005, 21081 CPT-2005]
Mandibular Resection Prosthesis (w/o guide) [D5935 CDT-2005, 21081 CPT-2005]
Maxillofacial Stabilizing Prosthesis [21089 CPT-2005]
Palatal Augmentation Prosthesis [D5954 CDT-2005, 21082 CPT-2005]
Surgical Splint

Parameter Guidelines: Mandibular Defect

ICD-9 Codes – Acquired

140.0–149.9
160.0–160.9
170.1
195.0
210.0
210.9
237.70–237.72
237.9
446.3
446.4
526.0–526.9
787.2
787.4

ICD-9 Codes – Congenital Development

520.4
520.5
520.6
755.59
756.0

A. Indications for care
  1. Loss of all or part of mandible
  2. Deviation of mandible due to partial resection
  3. Neuromuscular or neural malfunction of primary or secondary cause
  4. Loss of function from 1, 2, or 3; i.e., difficulty with deglutition and/or fluid control, speech, and mastication
  5. Poor self-esteem and quality of life
  6. Psychosocial factors
  7. Professional referral
  8. Occlusal instability
B. Therapeutic goals
  1. Guide mandibular movement
  2. Retrain use of remaining neuromuscular complex
  3. Improve deglutition
  4. Improve mastication
  5. Improve speech
  6. Substitute for dento-alveolar anatomy
  7. Improve facial support/cosmetics
  8. Improve lip support
  9. Improve salivary control
C. Risk factors affecting quality of treatment (severity factors that increase risk and the potential for known complications)
  1. Sequelae from surgery
  2. Concomitant therapies (i.e., radiation, chemotherapy)
  3. Deviation of the mandible or altered/restricted mandibular movements
  4. Presence/absence of physical therapy post-surgery
  5. Extent of scarring
  6. Loss of muscular function
  7. Loss of sensory function
  8. Loss of surrounding tissues, tongue, lips, buccal mucosa
  9. Presence/absence of neck dissection
  10. Presence/absence of teeth
  11. Edentulism
    a. Same arch
    b. Opposing arch
  12. Periodontal disease
  13. Endodontic complications
  14. Psychosocial factors
  15. Poor residual bone quality
  16. Caries
D. Standards of care
  1. Comprehensive clinical assessment
  2. Preprosthetic preparation
    a. Appropriate review of medical history
    b. Appropriate consultation with physician/surgeon

c. Appropriate surgical evaluation
d. Appropriate endodontic evaluation
e. Appropriate periodontic evaluation
f. Implant evaluation
g. Evaluation for surgical revision or reconstruction
h. Graft evaluation

3. Adjunctive care to support or retain prostheses
4. Prosthesis placement
5. Maintenance/alteration of prostheses
6. Patient education
7. Post-treatment care

E. Specialty performance assessment

1. Favorable outcomes
a. Improved mandibular movement
b. Improved occlusion
c. Improved mastication
d. Improved deglutition
e. Improved speech
f. Improved quality of life
g. Improved facial support
h. Positive psychosocial response
i. Satisfactory patient adaptation
j. Airway support
k. Improved control of fluids

2. Known risks and complications
a. Progression or recurrence of the disease
b. Continued difficulty with mastication, speech, deglutition
c. Unstable prosthesis
d. Lack of patient compliance or understanding
e. Tissue changes requiring modifications or remaking of prosthesis
f. Degradation of teeth and supporting tissues
g. Progression of the patient's disease
h. Material failure/incompatibility
i. Allergic response
j. Soft-tissue irritation
k. Airway compromise
l. Tissue breakdown/bone exposure
m. Loss of integration of implants
n. Fracture of hardware
o. Unrealistic patient expectations

11C) Palatopharyngeal Incompetence or Insufficiency

Palatopharyngeal insufficiency refers to the condition that results when the soft palate is of insufficient length (as seen in congenital or acquired deformities) to achieve palatopharyngeal closure during the dynamic activities of speech, phonation, and deglutition. Palatopharyngeal incompetence refers to the condition that results when the soft palate is of sufficient length but is compromised neuromuscularly, thus making palatopharyngeal closure impossible. The treatment of these disorders falls into two categories. This includes surgery and oral/dental prosthetic devices. The educationally qualified prosthodontist is most trained to design and fabricate prostheses to treat and manage these disorders. These prostheses mechanically alter the anatomy of the palatopharyngeal mechanism, minimizing the loss of air and fluids resulting in improved speech and deglutition. These can be either a speech-aid

prosthesis in the case of insufficiency, a palatal lift prosthesis for incompetence, or a combination of these two prostheses.

Areas of consideration and reference include but are not limited to:

Maxillofacial Stabilizing Prosthesis
Palatal Augmentation Prosthesis
Palatal Lift Prosthesis, Modification
Palatal Lift Prosthesis, Definitive
Palatal Lift Prosthesis, Interim
Speech Aid, Adult
Speech Aid, Modification
Speech Aid, Pediatric

Parameter Guidelines: Palatopharyngeal Incompetence

ICD-9 Codes

145.0–147.9
237.70–237.72
377.9
434.91
744.81–744.89
744.9
749.00–749.04
749.10–749.14
749.20–749.25
750.10–750.9

A. Indications for care
  1. Unintelligible or socially unacceptable speech
  2. Loss of deglutition (regurgitation of food and/or fluid into nasal cavities and sinuses)
  3. Exposure of nasopharyngeal space (palatopharyngeal insufficiency)
  4. Poor patient self-esteem and quality of life
  5. Psychosocial factors
  6. Professional referral

B. Therapeutic goals
  1. Speech improvement
  2. Improved deglutition
  3. Positive psychosocial response
  4. Improvement in patient self-esteem and quality of life
  5. Replace dento-alveolar anatomy
  6. Improved occlusion
  7. Improved mastication

C. Risk factors affecting quality of treatment (severity factors that increase risk and the potential for known complications)
  1. Neuromuscular disease
  2. Long-term prognosis
  3. Size and location of palatopharyngeal deformity
  4. Inadequate supporting structure – poor arch form and/or inadequate tooth numbers or form to include strategic position of teeth in the dental arch
  5. Edentulism (maxillary arch)
  6. Discordant maxillo-mandibular relations and occlusion
  7. Hyperactive gag reflex

8. Periodontal disease
9. Endodontic complications
10. Parafunctional habits
11. Psychosocial factors

D. Standards of care
1. Comprehensive clinical assessment
2. Preprosthetic preparation
   a. Appropriate review of medical history
   b. Appropriate consultation with attending physician/surgeon/therapist
   c. Appropriate nonsurgical evaulation
   d. Appropriate surgical evaluation
   e. Appropriate endodontic evaluation
   f. Appripirate periodontal evaluation
   g. Implant placement evaluation
3. Adjunctive dental care to support or retain prosthesis
4. Placement of prosthesis:
   a. Palatopharyngeal speech aid
      i. Diagnostic (pediatric and adult)
      ii. Definitive (pediatric and adult)
   b. Palatal lift
   c. Palatal augmentation prosthesis
5. Surgical revision and/or reconstruction
6. Intracoronal and extracoronal restorative procedures
7. Maintenance of prosthesis
8. Patient education
9. Post-treatment care

E. Specialty performance assessment
1. Favorable outcomes
   a. Improved speech
   b. Improved mastication
   c. Improved deglutition
   d. Improved self-esteem and quality of life
   e. Positive psychosocial response
   f. Satisfactory patient adaptation
2. Known risks and complications
   a. No improvement in speech
   b. No improvement in deglutition
   c. Unstable prosthesis
   d. Hyponasal speech
   e. Airway compromise
   f. Unrealistic patient expectations
   g. Lack of patient compliance or understanding
   h. Tissue changes requiring modifications or remaking of prosthesis
   i. Degradation of teeth and supporting structures
   j. Progression of the patient's disease
   k. Material failure/incompatibility
   l. Allergic response
   m. Soft-tissue irritation
   n. Gagging
   o. Aspiration

11D) Soft Palate Defect

1. Acquired
2. Congenital and Developmental

Treatment of diseases of the soft palate can create defects that are a challenge to restore. These tissues are dynamic in function and not easily replaced or duplicated. Pretreatment planning can be invaluable and is strongly encouraged. The educationally qualified prosthodontist is best trained to treat and manage these disorders. These prostheses attempt to restore the dynamic function of the palato-pharyngeal complex to control and direct the flow of air, fluid, and food in a normal physiological manner.

Areas of consideration and reference include but are not limited to:

Palatal Lift Prosthesis, Definitive [D5955 CDT-2005, 21083 CPT-2005]
Palatal Lift Prosthesis, Interim [D5958 CDT-2005]
Palatal Lift Prosthesis, Modification [D5959 CDT-2005]
Speech Aid, Modification [D5960 CDT-2005, 21084 CPT-2005]
Speech Aid, Adult [D5953 CDT-2005, 21084 CPT-2005]
Speech Aid, Pediatric [D5953 CDT-2005, 21084 CPT-2005]
Surgical Obturator [D5931 CDT-2005, 21076 CPT-2005]
Definitive Obturator [D5932 CDT-2005, 21080 CPT-2005]

Parameter Guidelines: Soft Palate Defect

ICD-9 Codes

See Palatopharyngeal Incompetence or Insufficiency.

A. Indications for care
   1. Unintelligible speech (or loss of intelligibility)
   2. Difficulty with deglutition (nasal regurgitation)
   3. Oro-nasal or oro-pharyngeal communication
   4. Loss of patient's self-esteem and quality of life
   5. Professional referral
   6. Nasal reflux
B. Therapeutic goals
   1. Intelligible speech
   2. Improve deglutition (reduce nasal reflux)
   3. Improved psychosocial response
   4. Improve self-esteem and quality of life
C. Risk factors affecting quality of treatment (severity factors that increase risk and the potential for known complications)
   1. Size and location of the defect
   2. Function of remaining velopharyngeal mechanism
   3. Presence or absence of dento-alveolar support
   4. Opposing dentition
   5. Periodontal disease
   6. Endodontic complications
   7. Psychosocial factors
   8. Concomitant therapies
   9. Change in neuromuscular reflex
D. Standards of care
   1. Preprosthetic preparation
      a. Review of medical history
      b. Evaluation with physician/surgeon/speech pathologist

c. Oral surgery evaluation
d. Endodontic evaluation
e. Periodontal evaluation
f. Implant evaluation, if appropriate

2. Adjunctive care to retain support prosthesis, i.e., implants, fixed prosthesis
3. Prosthesis fabrication and placement
4. Maintenance/modification of prosthesis
5. Patient education and post-treatment care
a. Dental
b. Concomitant therapy, i.e., speech

E. Specialty performance assessment:
1. Favorable outcomes
a. Improved speech
b. Improved deglutition
c. Improved quality of life
d. Improved self-image
e. Improved psychosocial response
f. Improved palato-pharyngeal competence

2. Known risk and complications
a. No improvement in speech
b. No improvement in deglutition
c. Continued nasal reflux
d. Patient unable/unwilling to wear prosthesis
e. Lack of patient compliance or understanding
f. Tissue changes requiring remake or modification of prosthesis
g. Degradation of teeth and supporting tissues
h. Progression of patient's disease
i. Material failure/incompatibility
j. Soft-tissue irritation
k. Airway compromise
l. Aspiration

11E) Composite Resection Defect

Composite defects by definition involve multiple facial structures, compromise multiple sensory systems, and frequently require multiple integrated prostheses that support, contact, and/or function together. Multiple defects have multiple sensory loss and loss of control of body fluids. The loss of tissues often leaves the patient with a severe facial deformity, which may result in:

a. Behavior maladjustment
b. Prejudice regarding employment
c. Difficulties in interpersonal relationships
d. Unintelligible speech
e. Frustration
f. Loss of self-esteem and
g. Sexual dysfunction

The educationally qualified prosthodontist is best trained to evaluate the patient for restoration of the defect.

Areas of consideration and reference include but are not limited to:

Facial Augmentation Implants [21089 CPT-2005]
Facial Moulage [D5912 CDT-2005]

Facial Moulage, Sectional [D5911 CDT-2005]
Facial Prosthesis, Replacement
Mandibular Resection/Reconstruction Prosthesis [21081 CPT-2005]
Maxillofacial Stabilization Prosthesis [21089 CPT-2005]
Nasal Prosthesis [21087 CPT-2005]
Obturator Prosthesis, Definitive [21080 CPT-2005]
Obturator Prosthesis, Interim [21079 CPT-2005]
Obturator Prosthesis, Surgical [21076 CPT-2005]
Maxillary resection, reconstruction prosthesis
Orbital Prosthesis [21077 CPT-2005]
Intraoral prosthesis [21081 CPT-2005]

Parameter Guidelines: Composite Resection Defect

ICD-9 Codes

Refer to subparameters 11A, 11B, 11C, 11E, 11G, 11H.

A. Indications for care
1. Facial soft-tissue deformity resulting from skin, muscle, and connective tissue loss
2. Facial hard-tissue deformity from loss of bone, teeth, and cartilage
3. Loss of sensory organ (eye) resulting in blindness
4. Loss of sensory organ (nose) resulting in loss of smell
5. Oral tissue loss (hard and soft tissues), resulting in reduced oral competency, decreased mastication, disrupted speech, dysphasia, and facial reflux during eating and swallowing
6. Exposure of nasal, sphenoid, and frontal sinuses
7. Compromised speech resonance with increased nasality
8. Communication of oral-nasal-facial cavities
9. Loss of patient's self-esteem
10. Professional referrals

B. Therapeutic goals
1. Restoration of facial form
2. Restoration of ocular form
3. Restoration of oral competence with reduction of oral and facial reflux
4. Substitution for dento-alveolar structures and facial structures
5. Improvement of nasal-oral-facial cavity separation
6. Improvement in self-esteem and quality of life
7. Improvement in deglutition and mastication
8. Restoration of speech, improved resonance, and reduced nasality
9. Restoration of sinus partition to improve normal humidity
10. Reduction of mucous crusting and control of normal discharge of bodily fluids

C. Risk factors affecting quality of treatment (severity factors that increase risk and the potential for known complications)
1. Status of existing disease: contiguous, local, or systemic
2. Size and location of defect
3. Number of sensory structures normally found within defect
4. Inability to speak and communicate
5. Complications from alterations in normal anatomical soft-tissue form and bony support
6. Local wound changes, friable tissues, scar tissue, hemorrhage
7. Compromise from functional rehabilitation to form rehabilitation
8. Maintenance of nasal and oral airway
9. Incomplete surgical reconstruction
10. Preexisting systemic conditions
11. Psychosocial factors
12. Scarring

13. Loss of function of remaining structure secondary to treatment
14. Postirradiation and chemotherapeutic tissue changes and sequelae
15. Motor skills of the patient/ lack of motion
16. Unrealistic expectations

D. Standards of care
1. Comprehensive clinical assessment
2. Pretreatment evaluation
   a. Appropriate review of medical history
   b. Appropriate maxillofacial examination
   c. Appropriate dental examination
   d. Appropriate implant evaluation
   e. Consider consultations to include physician/surgeon
3. Adjunctive pretreatment surgical revisions to defect site
4. Adjunctive dental care to support or retain prosthesis if defect is contiguous with oral cavity
   a. Implant
   b. Surgical revisions
   c. Dental care and maintenance
5. Selection or fabrication of ocular element
6. Placement of composite prosthesis
7. Patient education and instruction in use
8. Maintenance of prosthesis: composite and intraoral
9. Pretreatment follow-up
10. Accurate impression
11. Prosthesis design
12. Post-treatment follow-up care

E. Specialty performance assessment
1. Favorable outcomes
   a. Improved facial/ocular aesthetics
   b. Maintenance of humidification in defect
   c. Reduction in airborne pollutants to defects membranes and tissues
   d. Improved speech, deglutition
   e. Reduction of nasal or oral regurgitation and salivary flow
   f. Airway support
   g. Improved patient self-esteem and quality of life
   h. Acceptable patient adaptation and use of prosthesis
   i. Minimal tissue irritation
2. Known risks and complications
   a. Difficulty in maintaining prosthesis position (unstable)
   b. Difficulty in prosthesis maintenance
   c. Tissue changes (color and anatomical) requiring modification
   d. Difficulty in reducing reflux
   e. Unrealistic patient expectations
   f. Irritation or ulceration from prosthesis
   g. No improvement in speech, deglutition
   h. No improvement in control of fluids
   i. Continued poor self-esteem
   j. Recurrence of disease
   k. Lack of patient cooperation/motivation
   l. Loss of retention
      i. Adhesive allergy or ineffectiveness
      ii. Implants: Loss in integration
      iii. Implants: Fracture of framework or implant retained device
   m. Loss of prosthesis/damage to prosthesis

11F) Traumatic Injury

Traumatic injury often causes unique tissue problems. The educationally qualified prosthodontist is best trained to evaluate the defect and coordinate, manage, and design prostheses to deal with the resultant defect(s). The prosthesis can restore form and function and reestablish partitions between contiguous cavities. The treatment of these problems, especially the more complex ones, often involves multiple surgeries to attempt reconstruction, necessitating multiple prostheses used over time.

Areas of consideration and reference include but are not limited to:

Auricular Prosthesis [D5914 CDT-2005, 21086 CPT-2005]
Commissure Splint [D5987 CDT-2005]
Cranial Implants [62140 CPT-2005]
Facial Augmentation Implants [62141 CPT-2005]
Facial Moulage [D5912 CDT-2005]
Facial Moulage, Sectional [D5911 CDT-2005]
Facial Prosthesis [D5919 CDT-2005, 21088 CPT-2005]
Facial Prosthesis, Replacement [D5929 CDT-2005]
Nasal Prosthesis [D5913 CDT-2005, 21087 CPT-2005]
Nasal Septal Prosthesis [D5922 CDT-2005]
Obturator Prosthesis, Definitive [D5932 CDT-2005, 21080 CPT-2005]
Obturator Prosthesis, Interim [D5936 CDT-2005, 21079 CPT-2005]
Ocular Prosthesis [D5916 CDT-2005]
Ocular Prosthesis, Interim [D5932 CDT-2005]
Surgical Splint [D5988 CDT-2005]
Surgical Stent [D5982 CDT-2005]
Trismus Device [D5937 CDT-2005]
Dental Prostheses

Parameter Guidelines: Traumatic Injury

ICD-9 Codes

801–804.9
870–873.9
910–910.9

A. Indications for care
  1. Loss of soft or hard tissue in the head or neck area
  2. Assess location of fragments of teeth, bone, restorations, or foreign objects after trauma
  3. Professional/patient referral/request
  4. Poor patient self-esteem and quality of life
  5. Surgical techniques do not adequately restore missing tissues

B. Therapeutic goals
  1. Coordinate appropriate care with other health professionals
  2. Improve function and appearance (ideal)
  3. Improve partition between various head and neck spaces
  4. Control fluids
  5. Assist airflow
  6. Improve speech
  7. Improve deglutition
  8. Treat dento-alveolar structures
  9. Improve patient's self-esteem and quality of life

C. Risk factors affecting quality of treatment (severity factors that increase risk and the potential for known complications)
   1. Increased scarring
   2. Loss of hard and soft tissues
   3. Decreased oral opening may restrict access
   4. Collapse or loss of arch integrity
   5. Loss of dento-alveolar structures
   6. Premorbid prosthetic experience
   7. Other disease processes or medications that may compromise results
   8. Altered neurological condition and/or response
   9. Treatment delayed because of other more urgent or life-threatening care
   10. Inability to properly maintain restoration because of additional injuries (i.e., quadriplegia)
   11. Psychosocial
   12. Patient's expectations
   13. Lack of patient motivation and/or compliance

D. Standards of care
   1. Comprehensive clinical assessment
   2. Appropriate consultation and referral for alternative treatment modalities
   3. Prosthesis to include surgical stents, splints, intraoral and extraoral prostheses (if applicable)
   4. Adjunctive dental care to support or retain prosthesis
   5. Prosthetic preparation
      a. Review of medical history
      b. Maxillofacial examination
      c. Dental examination
      d. Implant
      e. Medical
   6. Educate in proper prosthesis maintenance
   7. Post-treatment follow-up

E. Specialty performance assessment
   1. Favorable outcomes
      a. Improved speech
      b. Improved mastication
      c. Improved deglutition
      d. Improved esthetics
      e. Improved self-image
      f. Improved facial height and support
      g. Airway support
      h. Support to muscles and joints
      i. Patient adaptation
      j. Improved control of fluids
   2. Known risks and complications
      a. Difficulties with speech, mastication, deglutition
      b. Unstable/unretained prosthesis
      c. Tissue changes requiring new prosthesis/modification
      d. Additional surgical procedures requiring new prosthesis/modification
      e. Unrestored tissue deficit (especially neurologic)
      f. Degradation of support structures including dento-alveolar complex
      g. Fluid incompetency
      h. Unrealistic expectations
      i. Ulceration of tissues
      j. Alterations in sensory perception (taste, smell)
      k. Delayed dento-alveolar complications

l. Material failure/incompatibility
m. Continued psychosocial problems
n. Lack of patient compliance or understanding

11G) Auricular Defect

1. Acquired
2. Congenital and Developmental

Auricular acquired and congenital defects may be partial or total; various types of grafted tissue or implants may be present. An auricular prosthesis is intended to potentially restore both the anatomic aspects of the auricle as well as provide the function of sound guidance and support other devices such as eyeglasses or hearing aids.

The educationally qualified prosthodontist is best trained to evaluate and treat the patient for restoration of the defect.

Areas of consideration and reference include but are not limited to:

Auricular Prosthesis
Facial Augmentation Implants
Facial Moulage
Facial Moulage, Sectional
Facial Prosthesis
Facial Prosthesis, Replacement
Implant Retention

Parameter Guidelines: Auricular Defect

ICD-9 Codes

161.1
171.1
172.2
173.2
212.0
216.2
237.70–237.72
744.0–744.09
744.1
744.21–744.29
744.3

A. Indications for care
1. Restoration of facial form
2. Psychosocial implications
3. Patient request for treatment
4. Professional referral
5. Efficacy of treatment compared with surgical alternatives
6. Unsatisfactory surgical result
7. Improve directional hearing

B. Therapeutic goals
1. Restore facial form
2. Potential to restore directional hearing
3. Restore esthetics
4. Improved patient self-esteem and quality of life

5. Allow patient to wear jewelry
6. Support use of eyeglasses
7. Improve less-than-ideal surgical results

C. Risk factors affecting quality of treatment (severity factors that increase risk and the potential for known complications)
1. Size and location of defect
2. Presence and location of remaining auricular appendages
3. Postradiation sequelae
4. Psychosocial factors
5. Patient's age
6. Unrealistic patient expectation
7. Lack of patient compliance
8. Environmental factors causing prosthesis instability
9. Tissue irritation from reaction to materials
10. Patient motor skills in proper prosthesis placement
11. Inadequate retention/compromised retention

D. Standards of care
1. Comprehensive clinical assessment
2. Review medical history
3. Surgical elimination of unacceptable tissue remnants
4. Appropriate consultation and referrals for alternative treatment modalities
5. Prosthesis compatibility with soft tissues
6. Accurate impression, prosthesis design, and coloration
7. Maintenance of prosthesis
8. Patient education
9. Evaluate for possible alternative means of retention, i.e., implants
10. Post-treatment follow-up care

E. Specialty performance assessment
1. Favorable outcomes
   a. Improved psychosocial attitude and self-esteem
   b. Improved facial symmetry
   c. Improved esthetics
   d. Improved directional hearing
   e. Allow use of jewelry
   f. Improved wearing of eyeglasses
2. Known risks and complications
   a. Unrealistic patient expectations
   b. Loss of prosthesis/damage to prosthesis
   c. Change in color and appearance of prosthesis with time
   d. Tissue irritation from materials and/or allergic response
   e. Lack of patient compliance
   f. Tissue changes requiring modification or refabrication of prosthesis
   g. Changing seasons resulting in changing skin color
   h. Ulcerations, bruises
   i. Recurrence of disease
   j. Loss of retention

11H) Orbital Defects: Evisceration, Enucleation, Exenteration

Orbital evisceration, enucleation, exenteration, and/or degeneration establishes that at least one globe has been removed or involved. The surgical parameters determining evisceration versus exenteration, for the most part, impact very little on the ocular prosthesis. Orbital exenteration due to tumors, however,

may also involve partial or total removal of soft tissues and the bony zygoma, maxilla, and frontal bones and may communicate with nasal and/or oral cavities. The loss of tissues that are involved with tumors frequently leaves the patient with severe facial deformity that may result in:

1. Behavior maladjustment
2. Prejudice regarding employment
3. Difficulties in interpersonal relationships
4. Altered voice quality
5. Loss of self-esteem
6. Sexual dysfunction

The educationally qualified prosthodontist is most trained to design and fabricate prostheses to treat and manage these disorders.

Areas of consideration and reference include but are not limited to:

Facial Augmentation Implants [D5925 CDT-2005]
Facial Moulage [D5912 CDT-2005]
Facial Moulage, Sectional [D5911 CDT-2005]
Facial Prosthesis [D5919 CDT-2005, 21088 CPT-2005]
Facial Prosthesis, Replacement [D5929 CDT-2005]
Ocular Prosthesis, Interim [D5923 CDT-2005]
Ocular Prosthesis [D5916 CDT-2005]
Orbital Prosthesis [D5915 CDT-2005, 21077 CPT-2005]
Implant

Parameter Guidelines: Orbital Defect

ICD-9 Codes

170.0
171.1
173.1
173.2
173.3
190.0–190.9
216.1
237.70–237.72
446.4
743.00–743.06
743.10–743.12

A. Indications for care
   1. Loss of sensory organ (eye) resulting in blindness
   2. Facial soft tissue deformity, resulting from skin, muscle, and connective tissue loss
   3. Facial hard tissue deformity, resulting from loss of bone and cartilage
   4. Exposure of nasal, frontal, and sphenoid sinuses
   5. Degenerated orbit (sclera shell)
   6. Loss of self-esteem
   7. Professional referrals
B. Therapeutic goals
   1. Mobility coordination with contralateral side (ocular)
   2. Color stable and correct (ocular/orbital)
   3. Size conformity with contralateral side (ocular/orbital)
   4. Improve facial, ocular, and orbital form
   5. Improve voice quality

6. Restore sinus partition to improve normal humidity reduction
7. Separate oro-nasal pharyngeal areas
8. Reduction of mucous crusting by recreating a humid environment

C. Risk factors affecting quality of treatment (severity factors that increase risk and the potential for known complications)
1. Ptosis
2. Implant selection and placement
3. Patient cooperation/compliance
4. Dryness
5. Muscle contracture, scar formation
6. Amount of soft tissue loss
7. Amount of bone loss
8. Migrated implant
9. Distorted lid borders
10. Shallow lid borders
11. Contracted socket
12. Sequelae of adjunctive treatment
13. Sequelae of wound healing, contracture, scar formation
14. Size, location, and contour of defect
15. Variation in skin coloration
16. Postradiation sequelae
17. Psychosocial factor
18. Patient's age
19. Unrealistic patient expectations
20. Tissue reaction to materials
21. Motor skills to place prosthesis
22. Lack of patient motivation and/or compliance
23. Exposure to environmental factors

D. Standards of care
1. Review medical history
2. Surgical consultation/alternation to reduce risk factors or supplement retention including implant utilization
3. Prosthetic preparation
   a. Facial moulage
   b. Photographs
4. Patient education
5. Conformer, trial conformer, and pressure conformer (when appropriate)
6. Implant retention to include multipart elastic retention (if appropriate)
7. Maintenance of prosthesis and post-treatment follow-up

E. Specialty performance assessment
1. Favorable outcomes
   a. Improved postsurgical facial form/cosmetics
   b. Improved airflow
   c. Improved quality of life
   d. Acceptable patient adaptation and use of prosthesis
   e. Adequate retention with minimal tissue irradiation
   f. Positive psychosocial adaptation
   g. Improved quality of speech
2. Known risks and complications
   a. Poor retention, difficulty in maintaining position of prosthesis
   b. Unachievable esthetic expectations
   c. Unrealistic patient expectations

d. Tissue irritations
e. Tissue changes, requiring prosthesis modification
f. Recurrence of disease
g. Lack of patient compliance
h. Change in color and appearance of prostheses with time
i. Loss of retention
  1. Adhesive allergy or ineffectiveness
  2. Implants: Loss of integration
  3. Implant fractures of framework or implant retentive device
j. Loss of prosthesis/damage to prosthesis
k. Changing season resulting in changing skin color

111) Nasal Defect

1. Acquired

A nasal prosthesis provides more than just an esthetic replacement device. A stable nasal prosthesis improves the patient's self-esteem and ability to interact with society; it directs airflow and helps to maintain humidity and protect nasal mucous membranes. The educationally qualified prosthodontist has the scientific knowledge to work closely with surgical colleagues to achieve optimum care. Secondary surgical reconstructive procedures, skin grafting, and the use of osseointegration reconstruction after tumor removal can enhance prosthesis stability and success.

Areas of consideration and reference include but are not limited to:

Facial Augmentation Implants Prosthesis [D5925 CDT-2005]
Facial Moulage [D5912 CDT-2005]
Facial Moulage, Sectional [D5911 CDT-2005]
Facial Prosthesis [D5919 CDT-2005, 21088 CPT-2005]
Facial Prosthesis, Replacement [D5929 CDT-2005]
Nasal Prosthesis [D5913 CDT-2005, 21087 CPT-2005]

Parameter Guidelines: Nasal Defect

ICD-9 Codes

160.0
170.0
172.3
173.3
195.0
237.70–237.72
446.3
446.4
744.81–744.89
744.9

A. Indications for care
  1. Restoration of facial form
  2. Psychosocial implication
    a. Self-esteem
    b. Unwillingness to be seen in society
  3. Patient request for treatment
  4. Efficacy of treatment compared with surgical alternatives
  5. Unsatisfactory surgical result
  6. Professional referrals

B. Therapeutic goals
  1. Improve facial form
  2. Potential to protect nasal mucous membranes
  3. Improved esthetics
  4. Improved patient self-esteem and quality of life
  5. Improved air flow
  6. Improved speech
C. Risk factors affecting quality of treatment (severity factors that increase risk and the potential for known complications)
  1. Size and location of defect
  2. Quality of tissues
  3. Preradiation sequelae
  4. Psychosocial factors
  5. Patient's age
  6. Patient's expectation and motivation
  7. Patient's compliance
  8. Tissue irritation from reaction to materials
  9. Adjunctive treatment sequelae
D. Standards of care
  1. Pretreatment evaluation
    a. Review medical history
    b. Maxillofacial exam
    c. Dental examination
  2. Consider adjunctive pretreatment surgical revision of site to include consideration for implants
  3. Consider appropriate consultation and referrals for alternative treatment modalities (skin graft implants)
  4. Appropriate material selection and coloration
  5. Accurate impression, prosthesis design, and alternative retention modalities
  6. Maintenance of prosthesis
  7. Patient education
  8. Post-treatment follow-up care
E. Specialty performance assessment
  1. Favorable outcomes
    a. Improved psychosocial attitude and self-esteem
    b. Improved facial symmetry
    c. Improved esthetics
    d. Improved air flow
    e. Protect nasal mucous membranes
  2. Known risks and complications
    a. Unrealistic patient expectations
    b. Loss and/or damage to prosthesis
    c. Change in color and appearance of prosthesis with time
    d. Tissue irritation from materials and allergic response, inflammation, or ulceration
    e. Lack of patient compliance
    f. Tissue changes requiring modification or refabrication of prosthesis
    g. Recurrence of disease
    h. Loss of retention
      i. Adhesive allergy
      ii. Implants: Loss of integration
      iii. Implants: Fracture of framework or implant-retained devise
    i. Loss of prosthesis/damage to prosthesis
    j. Changing seasons resulting in changing skin color

11J) Pre- and Postradiation Therapy Care

High-dose modern radiation therapy has increased the chance of cure of head and neck malignancy both when used alone and when in conjunction with surgery and/or chemotherapy. This treatment causes significant short-term and long-term sequelae. Pretreatment evaluation to include preventive measures and long-term treatment planning are essential. The therapeutic use of radiation therapy continues to evolve. The use of different particle application, combination therapies using chemotherapeutic agents to sensitize tumor cells and IMRT application continues to challenge the clinician to improve therapeutic and preventative treatments including continuing educational activities. The use of therapeutic agents such as topical fluoride application is highly valuable. The educationally qualified prosthodontist is best trained to design and fabricate prostheses and to treat and manage these disorders.

Areas of consideration and reference include but are not limited to:

Fluoride Carrier [D5986 CDT-2005, 21089 CPT-2005]
Radiation Carrier [D5983 CDT-2005]
Radiation Shield Positioner [D5984 CDT-2005]
Radiation Source Prosthesis
Trismus Device
Management and maintenance of hard and soft tissue complications

Parameter Guidelines: Pre- and Postradiation Therapy Care

ICD-9 Codes

Diagnosis codes are directly related to the disease process being treated by the radiation.

A. Indications for care
  1. Head and neck cancer, which may be treated with radiation
  2. Postoperative sites where radiation is indicated
  3. Postradiation patient:
    a. Treatment of hard tissues
    b. Treatment of soft tissues
    c. Need for prosthetic care
  4. Professional referrals
B. Therapeutic goals
  1. Reduce soft tissue reactions
  2. Reduce radiation exposure to noninvolved tissues
  3. Reduce or prevent xerostomia, ageusia, and anosmia
  4. Reduce long-term complications of soft and hard tissues
  5. Prevent radiation decay
  6. Reduce radiation-induced periodontal disease
  7. Reduce incidence of osteoradionecrosis
  8. Long-term treatment planning, pre- and postradiation therapy
  9. Maintain normal range of mandibular movement
C. Risk factors affecting quality of treatment (severity factors that increase risk and the potential for known complication)
  1. Perivascular fibrosis
  2. Salivary changes
    a. Viscosity
    b. pH
    c. Volume
  3. Radiation exposure
    a. Grays
    b. Field volume

   c. Particle type
   d. Energy source
4. Age and physical condition
5. Weight loss during radiation
6. Smoking and/or use of alcohol
7. Patient compliance
8. Individual tissue reaction

D. Standards of care
1. Comprehensive clinical assessment (Parameter 1)
2. Pretreatment dental care to avoid or reduce complications and/or side effects of radiation therapy
3. Primary factors:
   a. Incidence of radiation caries
   b. Incidence of radiation-induced periodontal disease
   c. Incidence of osteoradionecrosis
4. Patient support in dealing with xerostomia, ageusia, and anosmia
5. Management and maintenance of hard and soft tissue complications

E. Specialty performance assessment
1. Complete oral evaluation before initiation of radiation treatment if possible
2. Education of patient regarding dental hygiene and oral care
3. Modification of dental treatment planning after radiation to include long-term treatment planning

11K) Pre- and Post-Chemotherapy Care

Nonsurgical treatment of disease processes, although not usually removing tissue en masse, has both short-term and long-term sequelae of treatment. Side effects can be significant and debilitating, requiring intervention, treatment, and education of the patient to prevent complications. The educationally qualified prosthodontist or other dentists trained in oncology are best qualified to evaluate these patients and provide appropriate care.

Systemic chemotherapy produces an increase of serious risk of infection and hemorrhage, as well as other morbidities such as mucositis, oral ulceration, and impaired healing. Patients receiving systemic chemotherapy should have arrangements made by their medical oncologist for an oral/dental evaluation before chemotherapy to eliminate potential dental sources of infection; disease-based exception and medical treatment decisions may supersede this. Continued dental observation is also necessary to prevent delays or interruption of medical treatment due to acute dental or oral disease.

Areas of consideration and reference include but are not limited to:

1. Fluoride Carrier
2. Maintenance and management of hard and soft tissue complications

Parameters Guidelines: Pre- and Post-Chemotherapy Care

ICD-9 Codes

Diagnosis codes are directly related to the disease process being treated by the radiation.

A. Indications of care
1. Primary or metastatic cancer to be treated with systemic chemotherapy

B. Therapeutic goals
1. Reduce potential for oral, dental infection
2. Reduce soft tissue reaction to chemotherapy
3. Maintain nutrition
4. Reduce xerostomia, ageusia, anosmia
5. Avoid invasive dental procedures during chemotherapy
6. Prechemotherapy oral dental treatment as indicated
7. Prevent delays or interruptions in chemotherapy due to dental infection

C. Risk factors affecting quality of treatment (severity factors that increase risk and the potential for known complications)
  1. Reduced hemopoietic functions
  2. Mucositis
  3. Candidiasis and other fungal infectious agents
  4. Weight loss
  5. Viral and bacterial-induced mucosal infection
  6. Poor oral hygiene
D. Standards of care
  1. Appropriate clinical assessment
  2. Minimize xerostomia, ageusia, and anosmia
  3. Reduced periodontal risks
  4. Minimal mucositis
  5. Maintain adequate nutrition-body weight stability
  6. Continually monitor oral hygiene status
  7. Provide necessary noninvasive dental care
  8. Appropriate follow-up and treatment planning
  9. Management and maintenance of hard and soft tissue complications
E. Specialty performance assessment
  1. Evaluate dental status before chemotherapy to eliminate potential oral, dental infection
  2. Monitor extraction sites for healing before the initiation of chemotherapy
  3. Educate patient regarding oral cancer and good dental hygiene during chemotherapy
  4. Monitor and treat mucositis

11L) Implant Retained Extraoral Prosthesis

Cranial-based osseointegrated implants are capable of providing retention for a variety of extraoral prostheses needed for reconstruction of facial deformities. Eliminating the need for adhesives improves the convenience and longevity of the prosthetic device while eliminating much of the insecurity associated with patient apprehension and self-consciousness. Surgical and maxillofacial prosthetic pretreatment planning is critical to the successful application of these techniques. Thus, the educationally qualified prosthodontist is the most appropriately trained practitioner to create these prostheses.

Areas of consideration and reference include but are not limited to:

Facial Prosthesis [D5919 CDT-2005, 21088 CPT-2005]
Cranial Based Osseointegrated Implants
Facial Moulage [D5912 CDT-2005]
Facial Moulage, Sectioned [D5911 CDT-2005]
Facial Prosthesis [D5919 CDT-2005, 21088 CPT-2005]
Facial Prosthesis Replacement [D5929 CDT-2005]

Parameter Guidelines: Implant-Retained Extraoral Prosthesis

ICD-9 Codes

Refer to subparameters 11F, 11G, 11H.

A. Indications for care
  1. Restoration of facial form
  2. Psychosocial implication
  3. Patient request for treatment
  4. Efficiency of treatment compared with surgical referral
  5. Patient referral
  6. Unsatisfactory existing adhesive retained prosthesis

7. Physically impaired prosthesis placement skills
8. Unsatisfactory existing soft tissue retention case

B. Therapeutic goals
1. Restored facial form
2. Protect exposed mucous membranes
3. Restored esthetics
4. Improved patient self-esteem
5. Improved patient confidence in retention of prosthesis
6. Improved quality of life
7. Improved compromised surgical result

C. Risk factors affecting quality of treatment (severity factors that increase risk and the potential for known complications)
1. Size and location of the defect
2. Possible surgical tissue contours
3. Possible radiation sequela
4. Psychosocial factors
5. Patient's age
6. Patient's expectations and motivation
7. Patient's compliance
8. Tissue reaction to penetrating materials
9. Soft-tissue depth and movement at penetration side
10. Bone availability, quality, and depth at receptor sites
11. Previous radiation therapy and bone residual vascularity
12. Superstructure design and ease of maintenance
13. Dexterity, visual acuity, and motor skills in placement of prosthesis
14. Soft-tissue reaction at penetration site over time

D. Standards of care
1. Review medical history (includes radiation ports, type, amount, etc.)
2. Surgical removal of impending tissue remnants
3. Appropriate consultation and referrals for alternative treatment modalities
4. Prosthesis compatibility with existing tissues
5. Accurate impression, superstructure design with correct prosthesis construction, retention modalities, and coloration
6. Post-treatment maintenance of prosthesis
7. Education of patient
8. Knowledge of osseointegration theory, principles, and techniques
9. Referral of adjunctive care as indicated (HBO)

E. Specialty performance assessment
1. Favorable outcomes
   a. Improved psychosocial attitude, self-esteem, and confidence
   b. Improved facial symmetry
   c. Improved esthetics
   d. Improved organ function (i.e., airflow, directional hearing, etc.)
   e. Protection of exposed mucous membranes
2. Known risk and complications
   a. Unrealistic patient expectations
   b. Loss of prosthesis use
   c. Change in color and appearance of prosthesis
   d. Loss of prosthesis marginal integrity with use
   e. Tissue irritation at implant penetration site
   f. Tissue changes requiring modification or refabrication of prosthesis
   g. Loss of mechanical retention

h. Loss of superstructure integrity
i. Loss of implant(s)
j. Lack of patient compliance

Selected References (Maxillofacial Prosthetic Parameter)

This list of selected references is intended only to acknowledge some of the source of information drawn upon in the preparation of this document. Citation of the reference material is not meant to imply endorsement of any statement contained in the reference material, or that the list is an exhaustive compilation of information on the topic. Readers should consult other sources to obtain a complete bibliography.

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12) Local Anesthesia Parameter

Preface

Criteria and standards in this section refer specifically and exclusively to methods used by prosthodontists to control the pain and anxiety of patients treated in outpatient facilities (e.g., dental schools, hospital outpatient treatment facilities, prosthodontists' offices, and other facilities where prosthodontics is accomplished.)

Anxiety, fear, and pain are of concern because each is inherent in the patient's reaction to the type of prosthodontic procedure being performed. All three must be controlled satisfactorily during therapy to permit safe and effective completion of the procedures. These anesthesia criteria have been developed to maximize safety and minimize risk in the population of patients being treated. The practitioner's selection of a particular technique for controlling pain and anxiety during a specific procedure has to be individually determined for each patient, considering the risks and benefits in each case.

Techniques seldom used or applicable to very few patients are not included in this document. This category included hypnosis, acupuncture, transcutaneous electrical nerve stimulation (TENS), and specific medications and techniques for controlling acute or chronic pain. Behavior modification techniques (biofeedback) and psychiatric management also have been excluded.

Although nitrous oxide–oxygen analgesia and nitrous oxide–oxygen sedation do fit within the definition of conscious sedation, we have chosen to exclude them from the techniques of conscious sedation presented here because the risk associated with their use is limited. The standards of care and specialty performance assessment indices (i.e., favorable outcomes, known risks, and complications) are the same as for local anesthesia. Conscious sedation has been shown to be extremely safe. The minimally depressed state of consciousness-effected, even with the concurrent administration of other drugs, causes few physiological changes. However, physiological monitoring of the patient is essential, and the prosthodontist and assistants all should be trained in basic cardiac life support (BCLS) or its equivalent.

In the future, new indications or new anesthetic agents and techniques may lead to changes in equipment. As new pieces of equipment and the techniques for using them are evaluated and accepted for use, their inclusion in this document will be considered.

When administering anesthetic and/or sedative procedures to a patient, the prosthodontist is encouraged to be familiar with the rules and regulations of his/her individual state dental board and to follow the guidelines advocated by the American Dental Association.

General Criteria and Standards

Informed Consent: The administration of anesthesia must be preceded by the patient's consent. Informed consent is obtained after the patient has been informed of the indications for the anesthetic procedure, the goals of treatment, the known benefits and risks of the anesthetic procedure, the factors that may affect the known risks and complications, the anesthetic management options, and the favorable outcomes.

Documentation: Parameters of care for prosthodontic procedures include documentation of objective findings, diagnosis, and patient management intervention.

Coding and Nomenclature

Diagnostic and procedural codes have been included in the ACP Parameters of Care only for general guidance. The codes listed may not be all-inclusive or represent the most current or specific choices. The inclusion of codes is not meant to supplant the use of current coding books or to relieve practitioners of their obligation to remain current in diagnostic and procedural coding. The ACP Committee on Parameters of Care and Committee on Nomenclature do not endorse the use of this document as a coding manual.

The diagnostic and procedural codes listed throughout this section may not be all-inclusive and should serve only as practice guidelines. ICD-9-CM (*International Classification of Diseases, Ninth Revision, Clinical Modification)* diagnostic codes may change yearly and must be reviewed and updated annually to ensure accuracy. Specific diagnoses must be obtained from a current, recognized ICD-9-CM code source and substantiated by documentation in the dental record. Procedural codes listed throughout this section serve as a guide, which may be applicable to the treatment performed or management modality chosen. These may not be the most recent, applicable, or acceptable codes. Some dental/medical insurance providers have billing conventions unique to their organizations. It is the provider's responsibility to be aware of these unique situations.

Current Procedural Terminology (CPT), the recognized codes for dental/medical billing, are revised yearly and must be reviewed and updated annually to ensure accuracy. The recent codes are accepted by dental/medical insurance providers and should be obtained from the current year's version of the *American Medical Association (AMA) CPT Manual*. *Current Procedural Terminology*

Current Dental Terminology (CDT) codes, the recognized codes for dental/medical billing, are revised every 3 years (previously every 5 years) and should be reviewed and updated whenever the most recent version of the *American Dental Association (ADA) CDT Manual* is published. *Current Dental Terminology*

Parameter Guidelines: Local Anesthesia

A. Indications for care
  1. Need to provide a prosthodontic procedure, which may create sensations, especially pain, that could interfere with treatment
B. Therapeutic goals
  1. Profound anesthesia in the operative area
  2. Return of normal sensation within a prescribed period of time
C. Risk factors affecting quality of treatment
  1. Presence of coexisting major systemic disease
  2. Adequacy of preoperative clinical preparation
    a. Clinical preparation of patient (i.e., history and physical evaluation; laboratory and other diagnostic studies complete)
    b. Status of informed consent (e.g., completed, lacking)
  3. Presence of infection
  4. History of drug allergy
  5. History of allergy or sensitivity to local anesthetic agents or additive agents
  6. Psychological aversion to injections
  7. Presence of uncontrolled systemic conditions that may interfere with the normal healing process and subsequent tissue homeostasis (e.g., diabetes mellitus, bleeding dyscrasia, steroid therapy, immunosuppression, malnutrition)
  8. Presence of behavioral, psychological, or psychiatric disorders, including habits (e.g., alcohol, tobacco, or drug abuse) that may affect anesthetic management
  9. Existing drug or alcohol intoxication
  10. Degrees of patient cooperation and/or compliance
  11. Method of administration (block, infiltration, intraligamentary, and interosseous)
D. Standards of care [D9200-D9299 CDT-2005]
  1. Completion of a medical history questionnaire, signed and dated by the patient or a responsible party
  2. Review of medical history form by the prosthodontist with all significant responses evaluated and noted on the form (dialogue history)
  3. Pretreatment physical evaluation and vital signs recorded in the chart

4. Completion of medical consultation or additional laboratory testing, if indicated, before initiation of treatment (except in extreme emergency)
5. Continual observation and supervision of patient through the treatment
6. Explanation of postoperative instructions to the patient and/or responsible adult at the time of discharge
7. Determination that vital signs are stable before discharge
8. Determination that patient is appropriately responsive before discharge

E. Specialty performance assessment indices
1. Favorable outcomes
By definition, the application or administration of local anesthetic agents is a totally reversible procedure. Except for the physiological and/or psychological trauma resulting from the procedure and except in rare cases of idiosyncratic reaction or allergy to the drugs involved, the patient should have returned to his or her preanesthetic physiological and/or psychological state within 12 hours after cessation of the administration of drug.
2. Known risks and complications
a. Events related to local anesthesia care
i. Cardiac arrest
ii. Clinically apparent acute myocardial infarction
iii. Clinically apparent symptoms of acute cerebrovascular accident
iv. Respiratory arrest
v. Fulminating pulmonary edema
vi. Aspiration of gastric contents followed by radiographic findings of aspiration pneumonitis
vii. Foreign body displaced into the airway or bronchi
viii. Development of peripheral or central neurologic deficit
ix. Infection
x. Dental injuries
xi. Ocular injuries
xii. Organ damage (i.e., kidney, liver)
b. Unplanned hospital admission shortly after outpatient procedure performed under local anesthesia
c. Unplanned admission to an intensive care unit shortly after the administration of local anesthesia
d. Imaging or clinical evidence of a broken needle
e. Persistent trismus
f. Evidence of intra-arterial or intravenous injection of the local anesthetic agents

Selected References (Local Anesthesia Parameter)

This list of selected references is intended only to acknowledge some of the sources of information drawn upon in the preparation of this document. Citation of the reference material is not meant to imply endorsement of any statement contained in the reference material, or that the list is an exhaustive compilation of information on the topic. Readers should consult other sources to obtain a complete bibliography.

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13) Adjunctive Therapies Parameter

Preface

The integrated therapy of many prosthodontic treatment plans includes components of all aspects of dentistry. Although the referral of a patient to appropriate specialists for treatment outside of prosthodontics is the norm, there are situations and considerations in which the patient's best interest is protected by the prosthodontist performing limited procedures adjunctive to prosthodontic therapies outside the normal scope of the specialty. These procedures should be of a limited nature and be deemed appropriate when referral would not be in the patient's best interest. These treatments should be preceded by a discussion with the patient concerning the risk/benefit ratio and a subsequent informed consent. The prosthodontist should have demonstrated competence in any procedure performed and be aware that the standard of care for the procedure is determined by that group of dentists who most appropriately perform that procedure.

General Criteria and Standards

Informed Consent: All prosthodontic procedures should be preceded by the patient's consent. Informed consent is obtained after the patient has been informed of the indications for the procedure(s), goals of treatment, the known benefits and risks of the procedure(s), the factor(s) that may affect the known risks and complications, the treatment options, the need for active maintenance by the patient and the need for future replacements and revisions, and the favorable outcome.
Documentation: Parameters of care for prosthodontic procedures include documentation of objective findings, diagnosis, and patient-management intervention.

Coding and Nomenclature

Diagnostic and procedural codes have been included in the ACP Parameters of Care only for general guidance. The codes listed may not be all-inclusive or represent the most current or specific choices. The inclusion of codes is not meant to supplant the use of current coding books or to relieve practitioners of their obligation to remain current in diagnostic and procedural coding. The ACP Committee on Parameters of Care and Committee on Nomenclature do not endorse the use of this document as a coding manual.

The diagnostic and procedural codes listed throughout this section may not be all-inclusive and should serve only as practice guidelines. ICD-9-CM (*International Classification of Diseases, Ninth Revision, Clinical Modification)* diagnostic codes may change yearly and must be reviewed and updated annually to ensure accuracy. Specific diagnoses must be obtained from a current recognized ICD-9-CM code source and substantiated by documentation in the dental record. Procedural codes listed throughout this section serve as a guide, which may be applicable to the treatment performed or management modality chosen. These may not be the most recent, applicable, or acceptable codes. Some dental/medical insurance providers have billing conventions unique to their organizations. It is the provider's responsibility to be aware of these unique situations.

Current Procedural Terminology (CPT), the recognized codes for dental/medical billing, are revised yearly and must be reviewed and updated annually to ensure accuracy. The recent codes are accepted by dental/medical insurance providers and should be obtained from the current year's version of the *American Medical Association (AMA) CPT Manual*. *Current Procedural Terminology* © 2005 American Medical Association. All rights reserved.

Current Dental Terminology (CDT) codes, the recognized codes for dental/medical billing, are revised every 3 years (previously every 5 years) and should be reviewed and updated whenever the most recent version of the *American Dental Association (ADA) CDT Manual* is published. *Current Dental Terminology* © 2002, 2004 American Dental Association. All rights reserved.

Parameter Guidelines: Adjunctive Therapies

ICD-9-CM

521 Diseases of hard tissues of teeth
522 Diseases of pulp and periapical tissues
523 Gingival and periodontal diseases
524 Dentofacial anomalies, including malocclusion
525 Other diseases and conditions of the teeth and supporting structures
526 Diseases of the jaws
527 Diseases of the salivary glands
528 Diseases of the oral soft tissues, excluding diseases specific for gingival and tongue
529 Diseases and other conditions of the tongue

A. Indicators for care
  1. Limited clinical conditions outside of prosthodontics directly associated with a current treatment plan
  2. Patient request/anxiety
  3. Patient care/comfort
  4. Professional referral
  5. Cost containment
B. Therapeutic goals
  1. Eliminate or manage clinical condition diagnosed
  2. Minimize operative procedures to patient
  3. Reduce anesthetic exposure
  4. Reduce patient discomfort/pain
  5. Eliminate or prevent an emergency condition
C. Risk factors affecting quality of treatment
  1. Severity of condition treated
  2. Preexisting systemic disease
  3. Patient noncompliance with postoperative instructions
  4. Known risks to therapy provided
D. Standards of care
  1. Informed consent procedure
  2. Endodontic procedures
  3. Periodontal procedures
  4. Orthodontic procedures
  5. Oral & maxillofacial surgical procedures
  6. Demonstrated competence in the procedure performed
  7. Referral to an appropriate specialist for treatment of complications/failure to achieve therapeutic goals
  8. Patient education
E. Specialty performance assessment criteria
  1. Favorable outcomes
    a. Elimination of emergency condition
    b. Successful elimination or management of clinical condition
    c. Minimal anesthetic exposure
    d. Minimize operative exposure
    e. Minimize pain/recovery periods
    f. Minimize patient anxiety
  2. Known risks and complications
    a. Exacerbation of condition

b. Failure to manage or eliminate clinical condition
c. Need for further specialty referral

Selected References

Literature references for the Adjunctive Therapies Parameter cover all areas of dentistry and would be too extensive to list. Members are encouraged to be conversant with the literature for each and every procedure attempted.

14) Terminal Dentition Parameter

Preface

Terminal dentition describes a condition in which the teeth are insufficient to maintain function, and the arch, as a whole, will transition to the edentulous state. The etiology might be periodontal disease, caries, trauma, inadequate number of remaining teeth to maintain function, prosthodontic comfort, and/or patient desires. Transition to complete edentulism should only be considered when the patient is fully informed of all variables (e.g., prognosis of teeth, chance of success measured against longevity of treatment) and consequences, which affect the value of treatment. Patient desires and expectations must be considered in conjunction with the professional knowledge and judgment of the prosthodontist.

The decision to remove one or more teeth has a multi-factorial rationale ranging from patient preferences, cost, prosthetic need, tissue preservation, reduction of infection/disease, medical necessity, and inadequate restorative prognosis. Since removal of a tooth/teeth is an irreversible, permanent act, the decision process must include a rigorous review of the myriad results of such treatment both in the short term and the long term. Patient expectations must be balanced with the realities of tooth removal including the ongoing costs of long-term prosthodontic rehabilitation and maintenance, as well as reduction in overall function depending on the prosthodontic treatment anticipated. Proper imaging records are critical in establishing an accurate prognosis based on the presenting anatomic factors and patient expectations since all information will be lost after extraction unless previously recorded.

General Criteria and Standards

Informed Consent: All prosthodontic procedures should be preceded by the patient's consent. Informed consent is obtained after the patient has been informed of the indications for the procedure(s), goals of treatment, the known benefits and risks of the procedure(s), the factor(s) that may affect the known risks and complications, the treatment options, the need for active maintenance by the patient, the need for future replacements and revisions, and the favorable outcome.
Documentation: Parameters of care for prosthodontic procedures include documentation of objective findings, diagnosis, and patient management intervention.

Coding and Nomenclature

Diagnostic and procedural codes have been included in the ACP Parameters of Care only for general guidance. The codes listed may not be all-inclusive or represent the most current or specific choices. The inclusion of codes is not meant to supplant the use of current coding books or to relieve practitioners of their obligation to remain current in diagnostic and procedural coding. The ACP Committee on Parameters of Care and Committee on Nomenclature do not endorse the use of this document as a coding manual.

The diagnostic and procedural codes listed throughout this section may not be all-inclusive and should serve only as practice guidelines. ICD-9-CM (*International Classification of Diseases, Ninth Revision, Clinical Modification)* diagnostic codes may change yearly and must be reviewed and updated annually to ensure accuracy. Specific diagnoses must be obtained from a current, recognized ICD-9-CM code source and

substantiated by documentation in the dental record. Procedural codes listed throughout this section serve as a guide, which may be applicable to the treatment performed or management modality chosen. These may not be the most recent, applicable, or acceptable codes. Some dental/medical insurance providers have billing conventions unique to their organizations. It is the provider's responsibility to be aware of these unique situations.

Current Procedural Terminology (CPT), the recognized codes for dental/medical billing, are revised yearly and must be reviewed and updated annually to ensure accuracy. The recent codes are accepted by dental/medical insurance providers and should be obtained from the current year's version of the *American Medical Association (AMA) CPT Manual*. *Current Procedural Terminology* © 2005 American Medical Association. All rights reserved.

Current Dental Terminology (CDT) codes, the recognized codes for dental/medical billing, are revised every 3 years (previously every 5 years) and should be reviewed and updated whenever the most recent version of the *American Dental Association (ADA) CDT* manual is published. *Current Dental Terminology* © 2002, 2004 American Dental Association. All rights reserved.

Parameter Guidelines: Terminal Dentition

ICD-9-CM

Use additional codes to identify cause of Partial Edentulism (525.10–525.19).

1. *525.50 Partial edentulism, unspecified*
2. *525.51 Partial edentulism, Class I*
3. *525.52 Partial edentulism, Class II*
4. *525.53 Partial edentulism, Class III*
5. *525.54 Partial edentulism, Class IV*

6. *52x.xx Completely Dentate (codes under submission)*

The specific determinants of the PDI for Partial Edentulism can be found in the ICD-9-CM codes 521–525; some examples are listed below:

306.8 Other specified psychophysiological malfunction: Bruxism, Teeth grinding

521 Diseases of hard tissues of teeth
522 Diseases of pulp and periapical tissues
523 Gingival and periodontal diseases
524 Dentofacial anomalies, including malocclusion
525 Other diseases and conditions of the teeth and supporting structures

873.6 Tooth [broken] uncomplicated
873.7 Tooth [broken] complicated

A. Indications for care
   1. Inadequate mastication
   2. Pain/discomfort
   3. Inadequate esthetics
   4. Inadequate support of TM joint and orofacial muscles
   5. Psychosocial factors
   6. Unsatisfactory existing prostheses
   7. Lack of intra-arch and interarch integrity and stability
   8. Questionable prognosis
      a. Loss of tooth structure/integrity
      b. Periodontally compromised
      c. Endodontically compromised
   9. Significance of tooth position

B. Therapeutic goals
  1. Improved mastication
  2. Reduction of pain/discomfort
  3. Esthetics
  4. Occlusal rehabilitation
  5. Improved support of TM joint and orofacial muscles
  6. Positive psychosocial response
  7. Restore intra-arch and interarch integrity and stability by replacement of teeth and associated structures.
  8. Improved tooth form and function
  9. Improved treatment prognosis
  10. Improved prosthetic support or retention
  11. Transitional restoration

C. Risk factors affecting the quality of treatment
  1. Dyskinesia
  2. Preexisting systemic conditions
  3. Hyperactive gag reflex
  4. Xerostomia
  5. Increased salivation
  6. Periodontal disease
  7. Endodontic complications
  8. Occlusal factors
  9. Skeletal factors
  10. Inadequate tooth structure
  11. Parafunctional habits
  12. Caries susceptibility
  13. Psychosocial factors
  14. Preexisting tooth position and alignment
  15. Inadequate hard and/or soft tissue
  16. Unrealistic patient expectations

D. Standards of care
  1. Preprosthetic preparation
    a. Appropriate nonsurgical evaluation
    b. Appropriate surgical evaluation
    c. Appropriate endodontic evaluation
    d. Appropriate periodontal evaluation
    e. Appropriate orthodontic evaluation
  2. Transitional fixed partial denture prostheses [D6253, D6793 CDT 2005]
  3. Transitional removable partial denture prostheses [D5211, D5212, D5820, D5821 CDT 2005]
  4. Transitional complete denture [D5130, D5140, D5810, D5811 CDT 2005]
  5. Transitional implants and associated prostheses [D6000-D6199 CDT 2005]
  6. Implant supported or retained prostheses [D6000-D6199 CDT 2005]
  7. Maintenance of existing prostheses [D5410-D5899 CDT 2005]
  8. Pretreatment follow-up [D5410-D5899 CDT 2005]
  9. Patient education
  10. Informed consent

E. Specialty performance assessment criteria
  1. Favorable outcomes
    a. Improved mastication
    b. Improved speech
    c. Improved esthetics
    d. Improved swallowing

e. Restored TM joint and orofacial muscle support
f. Positive psychosocial response
g. Improved comfort
h. Satisfactory patient adaptation
i. Improved intra-arch and interarch integrity and stability.

2. Known risks and complications
   a. Refractory patient response
   b. Speech alterations
   c. Unacceptable esthetics
   d. Unrealistic patient expectations
   e. Materials failure/incompatibility
   f. Biomechanically induced implant complications
   g. Difficulty in chewing and/or swallowing
   h. TM joint and/or orofacial muscle dysfunction
   i. Alterations in taste perception
   j. Allergic response
   k. Degradation of supporting structures

Postscript

The Parameters of Care are presented by the American College of Prosthodontists for a wide range of uses. They are accepted by the American Board of Prosthodontics and as such are a necessary teaching tool in prosthodontic training programs and dental school curricula. They are meant to emphasize the importance of the Prosthodontic Diagnostic Index in teaching, in diagnosis, and treatment planning for the prosthodontist and general practitioner, and are to be used in patient presentations and lectures. They also provide guidelines for daily use in communication with dental insurance companies and in the evaluation of the procedural requirements of the standard of care. This document provides the foundation of the concept that prosthodontics is a specialty based on diagnosis of degree of difficulty instead of individual tooth technique. It is a document designed to be used as a resource.

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