

# **Quality Assurance Manual**

**Medical College of Georgia  
School of Dentistry**

**Adapted from GDA Quality Assurance Manual**

## Table of Contents

<b>Introduction</b> .....	<b>3</b>
<b>The Assessment of Clinical Quality and/or Professional Performance</b> .....	<b>3</b>
Terminology.....	3
<b>Examination, Diagnosis and Treatment Planning the Assessment of Clinical Quality</b> .....	<b>4</b>
General Guidelines.....	4
Quality Evaluation Criteria .....	5
<b>Endodontics</b> .....	<b>6</b>
General Guidelines.....	6
Treatment Modalities .....	6
Endodontics Quality Evaluation Criteria .....	7
<b>Implant Dentistry</b> .....	<b>9</b>
General Guidelines.....	9
Patient Evaluation: .....	9
Evaluation Criteria - General: .....	10
Implant Dentistry Quality Evaluation Criteria.....	10
<b>Operative Dentistry</b> .....	<b>11</b>
General Guidelines.....	11
Operative Dentistry - Quality Evaluation Criteria .....	11
<b>Bonding and Veneering</b> .....	<b>13</b>
General Guidelines.....	13
Bonding and Veneer - Quality Evaluation Criteria.....	13
<b>Oral and Maxillofacial Surgery</b> .....	<b>14</b>
General Guidelines.....	14
Oral and Maxillofacial Surgery – Quality Evaluation Criteria.....	14
<b>Orthodontics</b> .....	<b>15</b>
General Guidelines.....	15
Orthodontics - Quality Evaluation Criteria.....	15
<b>Pediatric Dentistry</b> .....	<b>16</b>
General Guidelines.....	16
Pediatric Dentistry - Quality Evaluation Criteria.....	17
<b>Periodontics</b> .....	<b>18</b>
General Guidelines.....	18
Periodontics - Quality Evaluation Criteria.....	18
<b>Complete Denture Prosthodontics</b> .....	<b>19</b>
General Guidelines.....	19
Complete Denture Prosthodontics - Quality Evaluation Criteria .....	19
<b>Crowns and Fixed Partial Prosthodontics</b> .....	<b>20</b>
General Guidelines.....	20
Crowns and Fixed Partial Prosthodontics Quality Evaluation Criteria .....	20
Removable Partial Prosthodontics .....	21
Removable Partial Prosthodontics - Quality Evaluation Criteria .....	21
<b>Standards of Care for Adults and Related MCG Competency Statements</b> .....	<b>23</b>
<b>Pediatric Dentistry Case Complete Appointment – Quality Assessment Check List</b> .....	<b>25</b>
<b>Case Complete Appointment – Quality Assessment Check List</b> .....	<b>26</b>
<b>Orthodontic Case Complete Appointment – Quality Assessment Check List</b> .....	<b>27</b>

## Introduction

MCG School of Dentistry recognizes the need to establish quality assessment criteria for evaluating the quality of dental care. Since MCG is a state institution with a majority of its graduates practicing in Georgia, the Academic Council, after careful review, unanimously approved the use of the GDA Quality Assurance Manual as the model document for the school. It is the responsibility of each clinical department and the Clinical Chairman's Committee to provide oversight to the Quality Assurance Program of the MCG School of Dentistry.

This manual sets forth quality assessment criteria to be used in evaluating the quality of the various phases of dental treatment. It should be noted that the criteria listed as "Acceptable" are measurable levels considered attainable and adequate. The existence of varying levels of quality is recognized by the use of the term "Acceptable"; the term "Not Acceptable" indicates the treatment rendered is of such quality that it is already detrimental or may reasonably be expected to become so.

The charts containing the criteria for evaluating treatment procedures in the various disciplines of dentistry have a preface outlining general guidelines. The preface stresses what is perhaps the most important aspect of quality evaluation: the need for flexibility and judgment in the evaluation process. An in-depth judgment analysis should go with the use of any specific criteria. In some cases the individual circumstances may preclude adherence to these criteria. Other factors should be considered: the preexisting state of the patient's medical and dental condition; the patient's cooperation at the time dental care is rendered and in following suggested standards of care in oral hygiene programs; the patient's return to his or her dentist on a regular basis for maintenance of care rendered; complications occurring during the procedure which are normal and recognized risks of the dental care being performed; and other exigent conditions or complications.

In all cases of quality assessment, the possible variability of treatment results should be recognized. Where problems arise, they should be examined by peers of the practitioner involved. The material contained in this manual is intended to apply to all licensed practitioners of dentistry. It should further be noted that criteria such as these must reflect continuing progress in the art and science of dentistry.

The following principles embody the objectives and philosophy of a quality assessment program:

1. In the evaluation of treatment, the patient's health and welfare are the primary concerns.
2. The honor and integrity of the dental profession and the process of Peer Review must be preserved within professional administration.
3. The object of quality assessment is to determine whether the dental care received by the patient is of satisfactory quality. Its guidelines should be acceptable by third party, governmental agencies and others affected by the Peer Review process.
4. Alternate treatment plans may be employed if the patient is aware of any reduced prognosis and requests treatment with that understanding.
5. The dental student and clinical instructor have a clear responsibility to provide individualized, high-quality dental care as established by recognized standards of acceptable care, including coverage of dental emergencies for patients of record. The clinician has a responsibility to maintain his own competence through continuing education and to assist in monitoring the quality of care which individual patients receive.
6. Every licensed practitioner of dentistry has a responsibility to recognize his or her limitations, to seek consultation when appropriate, and to be available for consultation when requested.
7. The practicing dentist has a responsibility to judge and to maintain the satisfactory quality of any dental service performed by any student or auxiliary under his/her supervision.

## The Assessment of Clinical Quality and/or Professional Performance

### Terminology

1. **General guidelines** review definitions, purposes, special considerations and rules pertinent to the assessment of clinical quality and/or professional performance for each dental service or care component for which assessment is deemed necessary.

2. **Rating system for quality evaluation** provides a rationale for the rating of clinical quality and/or professional performance in one of two rating categories: Acceptable and Not Ac- acceptable.
3. **Standards** are professionally developed expressions of the variations from a criterion which are satisfactory.
4. **Quality Assessment Criteria** are predetermined elements of care against which aspects of the quality of service may be judged.
5. **Acceptable** covers clinical quality and/or professional performance that meets all Quality Assessment Criteria.
6. **Not Acceptable** covers clinical quality and/or professional performance which does not meet Quality Assessment Criteria and is either now producing damage to the patient's general or dental health or is likely to cause future damage.
7. List of Services to be Indexed:
  - History and Clinical Examination; Diagnosis; Treatment Planning, including Radiographic Examination
  - Endodontics
  - Implant Dentistry
  - Operative Dentistry
  - Oral Surgery
  - Orthodontics
  - Pediatric Dentistry
  - Periodontics
  - Prosthodontics, complete
  - Prosthodontics, fixed
  - Prosthodontics, removable
8. Code for Rating System  
 A = Acceptable                      NA= Not Acceptable

## Examination, Diagnosis and Treatment Planning the Assessment of Clinical Quality

### General Guidelines

The overall quality of dental health care rendered to patients will in the long run be governed by the thoroughness of the initial examination, diagnosis and sequence of treatment planning. For example, a well-carved and highly polished restoration placed within a tooth of questionable periodontal integrity, or a fixed prosthodontic appliance used in the same situation, would raise questions as to the practitioner's diagnostic judgment.

In evaluating a patient for comprehensive dental care, it is advisable to follow a definite sequence in effecting an acceptable examination, diagnosis and treatment plan.

1. Securing and evaluating a medical history to identify predisposing conditions that may affect treatment or patient management.
2. Securing and evaluating a dental history, including the chief complaint or reason for visit.
3. Inspecting the *extraoral* head and neck tissues.
4. Inspecting the intraoral hard and soft tissues.
5. Making the necessary radiographic examination.
6. Making impressions for diagnostic models where indicated.
7. Determining from an evaluation of all of the above examination criteria the proper sequence of treatment to be rendered.
8. Discussing with the patient the recommended treatment, alternative treatments and their limitations, fees involved and methods of payment.

The need for periodic radiographic examination as a tool for proper diagnosis and treatment, as well as a preventive aid, is an accepted philosophy. The following guidelines for the proper use of these examinations should be adhered to:

1. Initial Examination:

Radiographs that are sufficiently current and of diagnostic quality to allow for proper evaluation and interpretation of the oral status.

2. Recall:

a. At the appropriate interval, as indicated by the patient’s general oral condition and the judgment of the attending dentist, posterior bite-wing plus anterior periapical radiographs may be included in the examination.

b. Full-mouth radiographic survey should not be taken more often than every three years in the absence of specific indications for more frequent radiographs.

**Properly exposed and developed radiographs should exhibit the following characteristics:**

1. Sufficient density and contrast to differentiate the various structures of the teeth, the periodontal ligaments, the supporting bone and normal anatomic landmarks.
2. The entire root and surrounding bone in periapical radiographs.
3. Minimum distortion of image and lack of overlapping images.

Radiographs should be retained as part of the patient’s records so they can be reviewed serially. The amount of radiation exposure to the patients and dental personnel should be minimized by the use of accepted methods of radiation protection.

**Quality Evaluation Criteria**

ITEM	RATING AND EXPLANATION	
	ACCEPTABLE	NOT ACCEPTABLE
MEDICAL AND DENTAL HISTORY	Recorded on chart with notation of periodic updating. Any significant history noted in a conspicuous way on patient’s records (e.g., drug allergy, rheumatic heart, heart disease, etc.). Consultation with patient’s physician when indicated by information elicited in history.	No medical and past dental history taken or recorded. No evidence of updating. No evidence of consultation with patient’s physician where such consultation is indicated.
INSPECTION OF EXTRAORAL HEAD AND NECK TISSUES	Recorded with notations of periodic updating at recall examinations (e.g., swellings, lymphadenopathy, skin texture, etc.).	Not recorded. No evidence of updating.
INSPECTION OF INTRAORAL HARD AND SOFT TISSUES	Recorded in systematic manner (e.g., lips, cheeks, tongue, floor of mouth, throat, hard and soft palates, gingiva; teeth: mobility, pocket formation, restorations satisfactory and unsatisfactory, caries, etc.)	Not recorded. No evidence of updating
RADIOGRAPHIC EXAMINATION	<ol style="list-style-type: none"> <li>1. All areas of proposed treatment visible on radiographs.</li> <li>2. Radiographs within a satisfactory range of density and contrast.</li> <li>3. Root apices visible on periapical films.</li> <li>4. Crown image not overlapped on bite-wings.</li> </ol>	<ol style="list-style-type: none"> <li>1. Proposed treatment areas not visible.</li> <li>2. Poor film contrast and/or density.</li> <li>3. Apices of teeth not visible on periapicals.</li> <li>4. Crown image overlapped on bite-wings.</li> <li>5. Excessive elongation or foreshortening.</li> </ol>
DIAGNOSIS	A specific diagnosis recorded.	No diagnosis recorded.
TREATMENT PLANNING	<p>In general, the following is a suggested sequence:</p> <ol style="list-style-type: none"> <li>1. Relief of pain and non-elective surgery.</li> </ol>	Inappropriate sequence of diagnosis and treatment planning (e.g., construction of a final prosthesis without first removing all caries).

	2. Elimination of infection, 3. Discussion with patient of the possible causes of any disease so that when treatment is instituted elimination of these causes will effect a more lasting result. 4. Thorough prophylaxis. 5. Treatment of caries. 6. Periodontal treatment and elective surgery. 7. Prosthodontic replacements. 8. Placement of patient on recall.	
PATIENT CONSULTATION	1. Adequate documentation of the review of the treatment plan; alternative treatment (if any), limitations of treatment, fees for services and payment methods discussed fully with patient. 2. Referral to other health care providers should be made and documented when warranted.	Patient has not been informed of treatment alternatives

## Endodontics

### General Guidelines

The scope of endodontics includes, but is not limited to, the differential diagnosis and treatment of oral pains of pulpal and/or periradicular origin; vital pulp therapies; root canal therapy such as pulpectomy, nonsurgical treatment of root canal systems with or without periradicular pathosis of pulpal origin and the obturation of these root canal systems; selective surgical removal of pathological tissues resulting from pulpal pathosis; intentional replantation and replantation of avulsed teeth; surgical removal of tooth structure such as in apicoectomy, tooth sectioning and root amputation; bleaching of discolored dentin and enamel of teeth; retreatment of teeth previously treated endodontically; and treatment procedures related to coronal restorations by means of post and/or cores involving the root canal space.

All endodontic treatment procedures should be of such quality that predictable and favorable results will routinely occur. Patients should be aware that any treatment modality, however acceptable, may not be successful in each and every case. Extrinsic and intrinsic factors, both biological and psychological, may preclude success for any particular tooth treated.

Endodontic therapy is usually indicated in primary or permanent teeth with diseased or injured pulpal tissue. The total condition of the patient's remaining dentition, oral cavity, and general health, as well as the condition and the endodontic history of the teeth, must be considered and recorded.

The endodontic examination should consist of a complete medical and dental history and radiographic examination and a clinical examination including electrical, thermal, percussion, palpation, translumination and bacteriological tests when indicated.

Special tests must be performed to arrive at the correct diagnosis. Recent radiographs of the tooth in question, and of the adjacent teeth and alveolar bone, must be available at the time of clinical examination and diagnosis. Records should be kept of all pertinent information, including the diagnosis made and the treatment performed.

Immediate postoperative radiographs are helpful in evaluating endodontic therapy. Periodic examinations, including periapical radiographs, clinical examinations and a record of the presence or absence of symptoms, are valuable in determining the long-term results of endodontic therapy.

### Treatment Modalities

Vital pulp therapy consists of pulp capping or pulpotomy.

Pulp capping is a procedure in which an exposed or nearly exposed pulp is covered with a dressing or cement that protects the pulp against further injury and permits healing and repair. Two different techniques of pulp capping are recognized:

1. Direct pulp capping, in which a protective dressing is placed directly over a vital pulp at the site of exposure.

2. Indirect pulp capping, in which a protective dressing is placed over a thin partition of remaining dentin which, if removed, might expose the dental pulp.

Pulpotomy, or vital pulp amputation, is the surgical amputation of a portion of an exposed vital pulp, usually to preserve the vitality and function of the remaining radicular portion.

Root canal therapy consists of the complete removal of pulpal tissue and the obturation of the canal(s). It is indicated on any diseased or injured tooth, provided that the tooth can be restored to its normal function, has strategic importance for restoration, and is periodontally sound or can be made so, and that its apex can be sealed intraradicularly or surgically.

A recall for clinical evaluation of tissue repair is indicated within six months to a year following the endodontic treatment. Comparison of the new recall radiograph with the final-treatment radiograph should show improvement of the bony architecture. Complete healing may require months to years.

### Endodontics Quality Evaluation Criteria

ITEM	RATING AND EXPLANATION	
	ACCEPTABLE	NOT ACCEPTABLE
<b>VITAL PULP THERAPY</b> Direct Pulp Capping  Indirect Pulp Capping  Pulpotomy	Performed when there is a Pulpal exposure but no prior evidence of irreversible pathosis.  Performed when there is no prior evidence of irreversible pulpal pathosis  <b>Deciduous teeth</b> (with a useful life and function). Performed only when coronal pulp pathosis is evident or when a pulp exposure is too large to be pulp capped.  <b>Permanent teeth</b> Performed only when there is no evidence of pulpal or periapical pathosis and apical development of the root(s) is incomplete.	Performed when there is evidence of pulp necrosis.     Performed when there is evidence of massive pulp pathosis, periapical involvement in either deciduous or permanent teeth or deciduous teeth that are soon to be exfoliated and where there is complete apical development of permanent teeth.
<b>ROOT CANAL THERAPY</b>	Periapical radiographs show good endodontic treatment and periapical healing   The patient indicates the tooth has been asymptomatic (apart from transient discomfort immediately after filling).	No follow-up examinations established   Edema is present in the area and/or a fistula has developed in relation to periapical infection. An area of rarefaction increases in size.
Access  Obturation	The response to endodontic treatment has been evaluated by follow-up examinations  The access is suitable to accomplish intraradicular cleansing, enlarging, shaping and filling of the root canal(s).  The radiographic image appears to occupy the root canal space totally, both laterally and vertically. Inadvertent overfills or underfills are satisfactory if no postoperative sequelae of long duration have occurred. There are no voids in the apical one-third of the tooth, which may precipitate periapical pathosis.	Perforation of the crown or root has occurred and has not been repaired. Access is other than directly into the canal orifice, except when malpositioning or crowded conditions indicate otherwise.   The radiographic image of the filling material appears not to totally occupy the root canal space; particularly as observed in the apical one-third, chronic periapical inflammation continues or has occurred.
Apexification	Closure of the apex is evident radiographically or clinically.	A fistula or prolonged periapical inflammation persists.

<p>SURGICAL TREATMENT</p>	<p>Clinical and radiographic evidence shows healing</p>	<p>Inadequate followup with clinical and radiographic examination</p>
<p>OTHER ENDODONTIC PROCEDURES Hemisection     Root amputation Beaching Replantation Implants</p>	<p>All of the procedures are satisfactory when adequate clinical and radiographic evidence justify their use</p>	<p>Clinical and radiographic evidence is insufficient to justify use of the procedure.</p>

### General Guidelines

Since implant success involves both surgical treatment and prosthetic treatment, evaluation of a restored implant case requires use of both the implant guidelines and prosthetic guidelines sections of the *Quality Assurance Manual*.

### Patient Evaluation:

Patient evaluation procedures are selected to help formulate treatment recommendations. When appropriate, these may include the following:

1. Chief Complaint
2. Medical History
  - a. Current Treatment/Therapy
  - b. Major Illnesses or Diseases
  - c. Current Medications
  - d. Past Surgical History/Past Medical History
  - e. Allergies
3. Social and Family History
  - a. Tobacco and/or Alcohol use
  - b. Other drug use or dependency
4. Dental History
  - a. Previous Dental Experiences
  - b. Oral Hygiene
  - c. Periodontal
  - d. TMD
  - e. Habits (bruxism, etc.)
5. Physical Examination and Assessment
  - a. Significant relevant disease cofactors
6. Dental Examination
  - a. Charting of Teeth, present and missing
  - b. Appropriate Diagnostic Aids (may include the following):
    - i. Panoramic and/or PA Radiographs
    - ii. Cephalometric Radiographs
    - iii. Mounted Study Models
    - iv. CT Scans - reformatted x-sections
    - v. CT Generated Bone Models
    - vi. Radiographic Surgical Guide
    - vii. Tomograms
  - c. Evaluation of bone quality and quantity
  - d. Ridge Classification, Relationships and Occlusion
  - e. Periodontal - probing and mobility recordings
  - f. Soft tissue - attached gingiva, muscle attachments
  - g. Lip line (smile line)
  - h. TMD, Myofacial
    - i. Evaluation of Current Protheses

7. Prognosis for remaining dentition
8. Psychological Evaluation
9. Treatment Plan
  - a. Implant sites, number and type
  - b. Pre-surgical Consultations
    - i. Restorative Dentist
    - ii. Surgeon (if different from restoring dentist)
    - iii. Other dentists involved in completion
    - iv. Laboratory technician (if indicated)
    - v. Dentists should consider merits and limitations of all dental implant options.
10. Informed Consent - with treatment alternatives, risks and prognosis fully explained
11. Explanation of treatment fees
  - a. Diagnostic and radiographic
  - b. Surgical
  - c. Restorative
  - d. Other related fees
12. Documentation of Procedures

**Evaluation Criteria - General:**

1. Indication for Implants
2. Adequate Healing Time Before Loading
3. Adequate Maintenance and Follow-Up Protocol

**Implant Dentistry Quality Evaluation Criteria**

ITEM	RATING AND EXPLANATION	
	ACCEPTABLE	NOT ACCEPTABLE
Operational Explanation	1. The implant is of satisfactory quality and is expected to support the prosthesis and not damage the surrounding tissues.	1. The implant is not of acceptable quality. Damage to the bone and/or surrounding tissues is now occurring or is likely to occur.
Location and Placement	<ol style="list-style-type: none"> <li>1. Ideal placement, inclination, number and spacing of implants.</li> <li>2. Unavoidable off ridge placement or inclination.</li> <li>3. Asymptomatic penetration of floor of nose or sinus or inferior border of mandible.</li> </ol>	<ol style="list-style-type: none"> <li>1. Unnecessary tipping or inclination compromising prosthetic stability, esthetics or design.</li> <li>2. Severe tipping or malposition requiring implant burial or removal (prosthetically useless)</li> <li>3. Too few implants for occlusal load requirements.</li> <li>4. Implants too close together to maintain health of surrounding bone and soft tissue.</li> <li>5. Violation of mandibular canal, symptomatic violation of sinus, nose or inferior border of mandible.</li> </ol>
Mobility	No mobility of root form implant body. Slight mobility acceptable for blades and others that heal with connected tissue integration.	Slight to progressive mobility indicating irreversible loss of integration; removal indicated.
Peri-implant Tissues	<ol style="list-style-type: none"> <li>1. Healthy sulcus</li> </ol>	<ol style="list-style-type: none"> <li>1. Pathologic pockets.</li> </ol>

	2. Ample keratinized gingiva where necessary, or stable mucosa otherwise.	2. Dehiscence, fistula, or abscess present, indicating removal of implant.
Radiographic Appearance	1. Implant body full approximated by healthy bone, and minimal crestal bone loss. 2. No widening implant space present.	1. Progressive crestal cratering to untreatable vertical bone loss noted. 2. Slight widening to progressive widening of peri-implant space. 3. Symptomatic apical radiolucency present.
Subjective Symptoms	Lack of significant symptoms	1. Pain with normal function to steady pain; marked with function. 2. Dysesthesia etiologic to implant impingement on nerve. 3. Infection
Esthetics	1. Teeth are of acceptable form, size, position and alignment. 2. Teeth are of suitable shade, compatible with adjacent teeth. 3. Normal soft tissue profiles when they are visible as part of esthetic frame.	1. Tooth form and size disproportional; teeth are malpositioned or misaligned. 2. Shade noticeably different from adjacent or opposing teeth or inappropriate shade. 3. In the esthetic zone, tissue heights noticeably different from those of natural teeth.

## Operative Dentistry

### General Guidelines

Operative dentistry includes procedures concerned with restoring and maintaining the masticatory apparatus in an optimum state of health, function and satisfactory appearance. More specifically, teeth are restored with metal, plastic or porcelain.

The biomechanical principles of cavity preparation and restoration which seek to ensure prevention of recurrent caries, retention of the material within the tooth, resistance to fracture of the restorative material and/or tooth, preservation of periodontal and pulpal integrity, together with caries removal and esthetic consideration should be evident.

It should be noted that in certain instances, restorations exhibiting deficiencies in one or more of the basic principles, with the exception of caries removal, continue to provide service many years after placement. It would be unwise and unwarranted to evaluate such a restoration with the same yardstick as might be applied to the recently completed treatment.

### Operative Dentistry - Quality Evaluation Criteria

ITEM	RATING AND EXPLANATION	
	ACCEPTABLE	NOT ACCEPTABLE
Treatment Plan and Diagnosis	1. Diagnostic exam is performed with properly exposed and developed radiographs. 2. All areas of proposed treatment visible on radiographs. 3. Symbolic tooth charting is used to indicate pathological conditions. Patient is made aware of proposed treatment and possible alternatives.	1. No evidence of pretreatment charting or planning. 2. Lack of adequate radiographs. 3. Patient not informed of possible complications or alternatives in treatment.
Pain Control	1. Attempt made with local anesthesia to prevent a painful response during operative	1. Inadequate pain control and resulting patient discomfort.

	<p>procedures.</p> <ol style="list-style-type: none"> <li>Adequate post-operative instructions, as well as appropriate provisions for post-treatment professional care.</li> </ol>	<ol style="list-style-type: none"> <li>Lack of adequate post-treatment care for the patient.</li> </ol>
Outline Form and Cavity Preparation	<ol style="list-style-type: none"> <li>Includes all pits and fissures.</li> <li>Extends into cleansible areas.</li> <li>Exhibits retentive design and sufficient bulk to resist masticatory forces.</li> <li>Complete caries removal except documented indirect pulp capping.</li> </ol>	<ol style="list-style-type: none"> <li>Does not include possible sites of recurrent caries.</li> <li>Cannot be adequately cleansed by patient in course or routine acceptable hygiene procedures.</li> <li>Insufficient extension and depth suggestive of potential displacement and/or fracture.</li> <li>Cusps, where involved, not adequately protected.</li> <li>Incomplete caries removal.</li> </ol>
Surfaces and Esthetics	<ol style="list-style-type: none"> <li>Surface smooth.</li> <li>Color esthetics acceptable.</li> </ol>	<ol style="list-style-type: none"> <li>Surface rough, pitted, no discernible attempt to finish.</li> <li>Color esthetically unacceptable.</li> </ol>
Endodontic Consideration	<ol style="list-style-type: none"> <li>Adequate measures taken to prevent overheating pulp, i.e. water and/or air spray.</li> <li>Use of cavity liner and/or medicated base and/or bonding in deep preparations to aid in prevention of post-op discomfort.</li> <li>Direct pulp capping performed when there is a pulpal exposure but no prior evidence of irreversible pulpal pathosis.</li> <li>Indirect pulp capping when decay is deep, but there is no evidence of pulpal exposure and no prior evidence of irreversible pulpal pathosis.</li> </ol>	<ol style="list-style-type: none"> <li>No indication of bases pulpal protection used under deep preparations.</li> <li>Evident that gross decay was not completely removed under completed restoration.</li> </ol>
Anatomic Form and Occlusion	<ol style="list-style-type: none"> <li>Contour continuous with existing tooth form.</li> <li>Cusps, planes, grooves, marginal edges, contact areas, embrasures restored.</li> <li>Occlusion harmonious: neither prematurities nor infraocclusion.</li> </ol>	<ol style="list-style-type: none"> <li>Little or no attempt at restoring contour.</li> <li>Marginal ridges higher or lower than adjacent ridges, except where occlusion warrants.</li> <li>Contact open.</li> <li>Embrasures not contoured to allow for integrity of interproximal issues.</li> <li>Axial contours flattened or exaggerated.</li> <li>Restoration not in harmony with occluding teeth.</li> </ol>
Periodontal Consideration	<ol style="list-style-type: none"> <li>Periodontal health of tooth is such that its loss is not indicated in the immediate future.</li> <li>Thorough prophylaxis is performed before operation procedures are begun.</li> </ol>	<ol style="list-style-type: none"> <li>Restorations done on teeth considered periodontally hopeless.</li> <li>No considerations given to plaque or calculus prior to cavity preparations.</li> </ol>
Marginal Integrity	<ol style="list-style-type: none"> <li>No visible marginal defect or defect which can be detected by an explorer.</li> <li>No gingival overhang.</li> <li>No discoloration of margin.</li> </ol>	<ol style="list-style-type: none"> <li>Marginal tooth structure or restorative material fractured.</li> <li>Gingival overhang.</li> <li>Caries at margin.</li> <li>Cement lines visible at margins of inlay/only restorations.</li> </ol>

## Bonding and Veneering

### General Guidelines

Bonding and veneering are useful methods to satisfy patient's esthetic requirements. They assist the dentist in producing and enhancing an esthetically harmonious and cosmetically appropriate smile. Veneers are state of the art; superior esthetics can be achieved and their permanence is superior to chairside bonding. Bonding is most appropriate for smaller esthetic changes, such as diastema closure.

Certain aspects of treatment planning demand special consideration:

- Diagnostic models, photographs and imaging techniques are useful as preoperative records and as a means of planning the definite restoration;
- Periodontal health should be established and any periodontal treatment completed before placement of veneers or bonded procedures.
- A high caries level is a contraindication due to the increased possibility of recurrent decay;
- Occlusal contraindications may include bruxism, clenching, wear facets, fractured teeth, tooth mobility and craniomandibular dysfunction;
- Bonding and veneers are esthetic enhancements and can be replacements for orthodontic therapy. Malocclusions remain as such, but can be given a more esthetic appearance. The patient must be informed when orthodontics is indicated;
- The patient must be made aware of the potential longevity of the chosen restoration and the cosmetic results they should expect. They do not have the usual longevity of crowns and may require repair or replacement in the future.

### Bonding and Veneer - Quality Evaluation Criteria

ITEM	RATING AND EXPLANATION	
	ACCEPTABLE	NOT ACCEPTABLE
Operational explanation	The restoration is of acceptable quality and is expected to enhance patient esthetics.	The restoration is not of acceptable quality. Damage to the tooth and/or surrounding tissue has occurred or is likely to occur.
Indications	Bonding or veneers are the restoration of choice for requested cosmetic enhancement. Treatment creates no or minimal harm to teeth or adjacent tissues.	Restoration was made without consideration of other treatment possibilities. Special considerations requiring evaluation are not discovered or taken into consideration. Restoration may cause damage or adversely affect the prognosis of the treated tooth or teeth.
Surface and color	The surface of the restoration is smooth. No irritation of adjacent tissue is occurring. There is harmony in color, shade, and translucency between restorations and adjacent teeth.	Surface is irregular or fractured. Color discrepancy is outside the range of color, shade, or translucency of adjacent teeth.
Anatomic form	Restoration contours are confluent with adjacent teeth and soft tissues, and its exhibits acceptable anatomic form.	Restoration is grossly over contoured or under contoured. Contours are contributing to traumatic occlusion, caries, or periodontal disease.
Marginal integrity	There is minimal evidence of marginal discrepancy into which an explorer will penetrate. Margins are not thick or bulky.	Marginal discrepancy is evident. Marginal overhangs are present or contacts are faulty. Discoloration is found between restoration and tooth structure, excess cement is present, and restoration is mobile or fractured. Caries is detected.

## Oral and Maxillofacial Surgery

### General Guidelines

Oral surgery covers a wide spectrum, including dentoalveolar surgery, orthognathic and cleft surgery, reconstructive surgery, maxillofacial cosmetic surgery, TMJ surgery, implant surgery, trauma, pathology and outpatient anesthesia. Detailed clinical guidelines for each would be too extensive for these pages. The following table can be used as a general guideline.

### Oral and Maxillofacial Surgery – Quality Evaluation Criteria

ITEM	RATING AND EXPLANATION	
	ACCEPTABLE	NOT ACCEPTABLE
Dental and medical history and physical examination	The criteria should be generally the same as approved for " <a href="#">Examination, Diagnosis and Treatment Planning</a> ," considering the specific problem being evaluated.	The criteria should be the same as approved for " <a href="#">Examination, Diagnosis and Treatment Planning</a> ."
Radiographs	The criteria should be basically the same as approved for " <a href="#">Radiographic Examination</a> ."  Necessary preoperative and postoperative radiographs taken.	The criteria should be basically the same as approved for " <a href="#">Radiographic Examination</a> ."
Surgical considerations	<ol style="list-style-type: none"> <li>1. The surgical procedure judged an acceptable resolution for the problem presented.</li> <li>2. The physical findings and the patient's general condition considered.</li> <li>3. The type of anesthetic agent and the administration also carefully considered.</li> <li>4. Appropriate study aids.</li> </ol>	<ol style="list-style-type: none"> <li>1. If another type of procedure far preferable to the surgical procedure, taking all facets of the individual case into consideration is routinely available.</li> <li>2. Inappropriate use of one anesthetic agent where another would be safer.</li> <li>3. Catastrophic accident resulting from poor preoperative evaluation.</li> <li>4. Procedure done without necessary preparation and materials.</li> <li>5. Anesthetic agents administered by unqualified and unsupervised personnel.</li> </ol>
TECHNIQUE	<ol style="list-style-type: none"> <li>1. Adheres to modern standards of cleanliness, sterility and instrumentation.</li> <li>2. Treatment complete with involved tissues, hard and soft, treated or removed without undue trauma to adjoining tissues.</li> <li>3. In a case where root tip remains following extraction, proper disposition made.</li> <li>4. A working knowledge of emergency procedures, along with the presence of necessary emergency drugs and equipment according to accepted peer standards.</li> </ol>	<ol style="list-style-type: none"> <li>1. Improper sterilization of instruments and general lack of cleanliness in offices.</li> <li>2. Incompleteness of treatment, improper management of soft tissue incisions and undue trauma to adjoining tissue.</li> </ol>
MAINTENANCE OF RECORDS	Notations of an appropriate history and physical examination, treatment performed and follow-up care, drugs used, appropriate reports and correspondence, radiographs ordered by the oral surgeon or dentist included in the records and kept for the period of time prescribed by law. Proper consent of patient obtained.	Little or no information concerning the history and physical examination, no indication of final treatment, no mention of drugs if they were used; laboratory reports, operative reports, and correspondence not present and radiographs when ordered by the treating dentist, not kept for the period of time prescribed by law. Lack of patient consent.
POST-OPERATIVE	The individual performing the surgery or a	Lack of reasonable availability of the surgeon or a

AVAILABILITY	qualified alternate available to treat or to get suitable treatment for postoperative complications.	qualified alternative.
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## Orthodontics

### General Guidelines

By general definition orthodontics is that branch of dentistry concerned with the growth of the craniofacial complex, the development of functional occlusion and the treatment of dentofacial abnormalities. In particular, Orthodontics is that area of dentistry concerned with the supervision, guidance and correction of the growing or mature dentofacial structures, including those conditions that require movement of teeth or correction of malrelationships and malformations of their related structures. Orthodontic treatment involves the diagnosis, prevention, interception and treatment of all forms of malocclusion of the teeth and the associated alterations in their surrounding structures; the design, application and control of functional and corrective appliances; and the guidance of the dentition and its supporting structures to attain and maintain optimum occlusal relations in physiologic and esthetic harmony among cranial and facial structures.”

Orthodontic services include preventive, interceptive and corrective considerations. Therefore, orthodontic treatment deals directly or indirectly with the following:

1. Guidance of occlusal development.
2. Elimination of impairment of masticatory function related with dental malocclusion.
3. Reduction of periodontal disease and caries associated with malocclusion.
4. Correction of dentofacial abnormalities.
5. Improvement of dentofacial esthetics.
6. Correction of temporomandibular joint abnormalities.
7. Elimination of harmful dentofacial habits.
8. Correction of malposed teeth preparatory to construction of fixed or removable prostheses.

The general goals and primary objectives of orthodontic treatment are as follows:

1. Preserve hard and soft tissue integrity.
2. Attain alignment of teeth of both dental arches, with condyles in functional harmony with the temporomandibular joint.
3. Achieve satisfactory occlusion, both static and dynamic.
4. Modify favorably dentofacial esthetics.
5. Attain acceptable stability of result of treatment.

### Orthodontics - Quality Evaluation Criteria

ITEM	RATING AND EXPLANATION	
	ACCEPTABLE	NOT ACCEPTABLE
EXAMINATION AND PERSONAL HISTORY	Refer to section “ <a href="#">Examination, Diagnosis and Treatment Planning</a> ” and add family history. History and clinical examination findings recorded.	Inadequate history or clinical examination, insufficient needed data.
DIAGNOSTIC AIDS	Adequate diagnostic aids which may or may not include, depending on the complexity of the case: <ol style="list-style-type: none"> <li>1. Occluded dental casts</li> <li>2. Complete intraoral or Panorex radiographs</li> </ol>	Evidence that diagnostic aids essential to support diagnosis absent. Dental cast ground to centric occlusion where discrepancy exists between centric occlusion and centric relation.

	<ol style="list-style-type: none"> <li>3. Cephalometric radiographs and analysis</li> <li>4. Photographs</li> </ol>	
DIAGNOSIS AND TREATMENT PLAN	<ol style="list-style-type: none"> <li>1. Written treatment plan with stated objectives of treatment.</li> <li>2. Consideration of growth and development as related to and if pertinent to the individual case.</li> </ol>	Treatment plan in conflict with diagnosis and objectives of treatment.
CASE PRESENTATION (CONSULTATION)	Consultation with patient, parents, or guardian.	No consultation and/or no case presentation.
EXECUTION OF TREATMENT PLAN	<p>Treatment plan as executed compatible with diagnosis and treatment objectives.</p> <ol style="list-style-type: none"> <li>1. Appliance of choice and indications.</li> <li>2. Tissue considerations in selection of appliance design.</li> <li>3. Appliance maintenance.</li> <li>4. Post-treatment records.</li> </ol>	<p>Treatment plan not compatible with treatment objectives.</p> <ol style="list-style-type: none"> <li>1. Poor choices of appliance.</li> <li>2. Tissue abuse apparent.</li> <li>3. Poor management of appliance.</li> </ol>
RETENTION AND PLANNED RECALL	<ol style="list-style-type: none"> <li>1. A retention plan: <ol style="list-style-type: none"> <li>a. Appliance best suited to result</li> <li>b. Management of appliance</li> </ol> </li> <li>2. Planned recall.</li> </ol>	<ol style="list-style-type: none"> <li>1. Inadequate retention plan or poorly designed retentive appliance.</li> <li>2. Recall plan nonexistent or inadequate.</li> </ol>
EVALUATION OF RESULT	<ol style="list-style-type: none"> <li>1. Patient benefited from treatment.</li> <li>2. Objectives of treatment attained. <ol style="list-style-type: none"> <li>a. Tissue integrity preserved.</li> <li>b. Alignment, with condyles in functional harmony with the temporomandibular joint.</li> <li>c. Functional occlusion.</li> <li>d. Dentofacial esthetics improved.</li> <li>e. Stability of result.</li> </ol> </li> </ol>	<ol style="list-style-type: none"> <li>1. No apparent benefits from treatment.</li> <li>2. Irreversible changes to patient's disadvantage.</li> <li>3. Objectives of treatment not attained.</li> </ol>

## Pediatric Dentistry

### General Guidelines

The following section on quality assessment of pediatric dentistry treatment includes specific features of this discipline. Also included are references to other sections of the manual, where appropriate, since many of those are for adult patient care.

Services necessary for the preservation of the dentition and supporting structures should be provided through the age of 18. All of these services are necessary for comprehensive dental care and are listed. It must be understood that adequate diagnosis is a necessary prerequisite to treatment rendered.

1. Preventive services and treatment of acute conditions to include plaque control, patient education, prophylaxis and emergency treatment for the relief of pain and infection.

2. Restoration of the primary and permanent teeth to adequate form and function, with careful consideration given to the health of the pulp and the supporting structures.
3. Maintenance and restoration of space in the dental arch to achieve or retain normal functions, esthetics and occlusion.
4. Treatment of malocclusion with priority given to interceptive services.

### Pediatric Dentistry - Quality Evaluation Criteria

ITEM	RATING AND EXPLANATION	
	ACCEPTABLE	NOT ACCEPTABLE
Dental and medical history and patient examination	<ol style="list-style-type: none"> <li>1. An interview with parent or responsible person and child, including history of health problems and medical treatment, past dental experience.</li> <li>2. Clinical charting of the existing condition of the oral and facial structures.</li> </ol> <p>Radiographic survey with films sufficient in number and quality to detect anomalies and diseases and to evaluate development with the age and mental development of the child as consideration. Adequate radiation protection measures taken (i.e., lead apron for patient.)</p>	<ol style="list-style-type: none"> <li>1. No dental-medical history taken and noted in records.</li> <li>2. No chart record of existing conditions.</li> <li>3. Radiographic survey inadequate. (Refer also to item "<a href="#">Radiographic Examination</a>".) No radiation protection of patient.</li> </ol>
Patient and parent counseling, motivation and preventive procedures	<ol style="list-style-type: none"> <li>1. Plaque control: Parents instructed in toothbrushing and expected to cleanse the mouth of the very young child, involving the child in the process to the extent practical but maintaining direct responsibility for mouth cleanliness. With maturity educational efforts directed primarily to the child whose dexterity will increase. The older child is expected to assume responsibility for his own oral hygiene, encouraged and supported by parents and reinforced by dental office personnel at periodic recall visits.</li> <li>2. Oral prophylaxis and use of fluorides applied topically at least annually and more frequently when necessary.</li> <li>3. When appropriate, review of dietary patterns of the child including appropriate counseling.</li> <li>4. Fluorides for systemic use prescribed when indicated by lack of availability through water supply in accordance with 1994 revised supplemental guidelines.</li> </ol>	<ol style="list-style-type: none"> <li>1. Parents not instructed or involved in home care procedures. Responsibility not directed to parent when child is very young. As child matures, educational efforts and responsibility not redirected. No reinforcement by office personnel at periodic recall visits.</li> <li>2. Inadequate prophylaxis, topically applied fluoride not used as indicated.</li> <li>3. No review of dietary patterns evident, no nutritional counseling.</li> <li>4. Fluorides for systemic use not prescribed when indicated by lack of availability through water supply or exceeding recommended levels for prescription of systemic fluoride.</li> </ol>
Diagnosis and plan of treatment	<ol style="list-style-type: none"> <li>1. Identification of anomalies, disease and other significant deviations from normal for treatment or referral.</li> <li>2. Formation of an organized approach to a plan to a plan for treatment consistent with the needs of the patient and the level of patient acceptance and compliance. Priority given to the elimination of oral problems listed below:               <ol style="list-style-type: none"> <li>a. Pain and acute infection.</li> <li>b. Major and minor deformities.</li> </ol> </li> </ol>	<ol style="list-style-type: none"> <li>1. Anomalies, disease and other deviations from normal not identified and/or not treated or referred for treatment.</li> <li>2. Incomplete diagnosis and inadequate sequential treatment plan.</li> <li>3. Treatment plan not discussed, alternatives not indicated, consequences of nontreatment or partial treatment not explained.</li> </ol>

	<ul style="list-style-type: none"> <li>c. Carious lesions.</li> <li>d. Periodontal conditions.</li> <li>e. Prostheses or appliances for guidance of growth, space maintenance, correction of anomalies.</li> </ul> <p>3. Presentation of proposed plan of treatment to patient, parent or responsible party, with clear explanation of need, possible consequences of nonacceptance of proposed treatment or acceptance of partial treatment.</p>	
Control of pain and apprehension	Proper methods of apprehension and pain control utilized to assure that child does not experience unnecessary pain or discomfort. Child properly prepared for dental treatment.	No attempt made to control apprehension and pain or to prepare child for dental treatment.

## Periodontics

### General Guidelines

Evaluation of the patient's periodontal status requires obtaining relevant medical and dental history information and conducting a thorough clinical and radiographic examination. This includes an evaluation of extraoral and intraoral structures. All relevant findings must be documented. PSR is an appropriate screening procedure.

1. Extraoral tissues and temporomandibular apparatus must be examined and evaluated.
2. Intraoral tissues and structures must be examined and evaluated.
3. The teeth and their replacements, including implants, must be examined and evaluated.
4. Radiographs that are sufficiently current to allow for proper evaluation must be utilized.
5. The presence and distribution of plaque and calculus should be determined.
6. All relevant clinical findings must be presented to the patient and documented in the patient's record.

### Periodontics - Quality Evaluation Criteria

CATEGORY	DEFINITION	CLINICAL FEATURES	THERAPY OPTIONS	ACCEPTABLE	NOT ACCEPTABLE
Gingivitis	Inflammation of the gingiva around natural teeth or implants	Redness, edema, bleeding on probing, no radiographic bone loss.	Patient education; debridement of tooth surfaces; mechanical and/or chemical plaque control; evaluation of restorative factors.	Improved gingival tone, reduction of inflammation; acceptable plaque level.	Continuation of bleeding on probing, redness, and edema.
Periodontics	Inflammation of supporting tissues of the teeth which results in loss of periodontal ligament and supporting bone.	Edema, redness, bleeding on probing, and bone loss, resulting in loss of attachment. Clinical features may be generalized or localized, and could include health, slight, moderate and advanced conditions within the same patient.	Patient education; initial therapy including scaling and root planing, occlusal evaluation and elimination of local contributing factors; reevaluation; periodontal surgery, if periodontal health	Elimination of clinical signs of inflammation and reduced probing depths.	Continued inflammation and excessive probing depths.
Mucogingival Abnormalities	Aberrations in the relationship between the margin and the	Recession, reduction of keratinized tissue, probing depths	Scaling and root planing; gingival	No inflammation, satisfactory attached gingiva, acceptable	Continued recession, exacerbation of the

	mucogingival junction (MGJ).	extending beyond the mucogingival junction.	augmentation.	patient esthetics.	mucogingival defect.
Supportive Periodontal Treatment (SPT)	Maintenance initiated after completion of active periodontal therapy and continued at varying intervals for the life of the dentition or implant(s).	Continued monitoring through clinical examination, including periodontal charting and radiographic evaluation.	Periodontic debridement; adjunctive antimicrobial agents as necessary; retreatment when indicated.	Maintenance of periodontal health status attained as a result of active therapy.	Failure to offer supportive periodontal treatment.

## Complete Denture Prosthodontics

### General Guidelines

Complete dentures are indicated as a treatment procedure only when the prognosis for the remaining teeth is hopeless, or when all maxillary and mandibular teeth have been removed. Patients should be informed concerning the advantages and disadvantages of implant supported dentures and other implant supported prostheses that may be more attractive alternatives to conventional complete dentures.

The same guidelines apply to immediate complete dentures as to other complete dentures. The dentist has the responsibility of informing the patient of the necessity for modifying the denture at periodic intervals to compensate for the tissue changes that will occur. Planned coordination is necessary when the patient is referred to another dentist for preparatory surgery.

### Complete Denture Prosthodontics - Quality Evaluation Criteria

ITEM	RATING AND EXPLANATION	
	ACCEPTABLE	NOT ACCEPTABLE
Extension	<ol style="list-style-type: none"> <li>Denture exhibits proper peripheral seal at mucobuccal fold and covers those areas of the arches that provide maximum support.</li> <li>Denture base adapts closely to soft tissues without evidence of inflammation or ulceration.</li> </ol>	<ol style="list-style-type: none"> <li>Borders are overextended or under extended, peripheral seal is not acceptable.</li> <li>Tissue irritation is present, tissue is inflamed or ulcerated.</li> </ol>
Occlusion	<ol style="list-style-type: none"> <li>Occlusion is functional and noninterfering.</li> <li>The occlusal vertical dimension is within the physiological tolerance of the patient.</li> </ol>	<ol style="list-style-type: none"> <li>Occlusal surfaces lack anatomic detail; occlusal disharmony is present; occlusal or lateral interferences are present; occlusal surfaces are not polished; patient bites cheek or tongue; denture is displaced in closure or by excursive movements.</li> <li>Occlusal vertical dimension is not within the physiological tolerance of the patient.</li> </ol>
Stability	<ol style="list-style-type: none"> <li>Denture remains seated when biting pressure is applied in anterior and posterior segments of the arch.</li> <li>Denture remains seated during talking and smiling.</li> </ol>	<ol style="list-style-type: none"> <li>Noticeable movement of loosening occurs when biting pressure is applied.</li> <li>Denture is loosened or dislodged during talking and smiling.</li> </ol>
Retention	<ol style="list-style-type: none"> <li>Denture remains seated during normal functional activity.</li> </ol>	<ol style="list-style-type: none"> <li>Denture exhibits no resistance to dislodgement in an occlusal direction during normal muscular activity.</li> </ol>
Esthetics	<ol style="list-style-type: none"> <li>The denture harmonizes with the patient's facial appearance. Position, size, shape and shade of the teeth appear natural. The contour and shade of the base appear natural.</li> </ol>	<ol style="list-style-type: none"> <li>The denture appears unnatural and the position, size, shape and shade of the teeth or base do not harmonize with the patient's facial appearance.</li> <li>Esthetic limitations were not explained to the</li> </ol>

	<ol style="list-style-type: none"> <li>2. <i>When possible</i>, esthetics were thoroughly checked at the try-in stage and the patient's acceptance was verified.</li> <li>3. The labial position of the maxillary anterior teeth provides adequate lip support.</li> </ol>	<ol style="list-style-type: none"> <li>patient.</li> <li>3. Adequate lip support is not provided by the maxillary anterior teeth.</li> <li>4. The denture contributes to speech deficiencies.</li> </ol>
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## Crowns and Fixed Partial Prosthodontics

### General Guidelines

Crowns include the following acceptable restorations: full crowns, seven-eighths crowns, three-quarter crowns, inlays and onlays. They may be made of a metal alloy, ceramic material, acrylic or composite resin, or a combination of these materials. The properties of the chosen materials used must be compatible with that of the opposing dentition.

Crowns are indicated when:

- The restoration will receive excessive masticatory force that might fracture the remaining tooth structure or when a more conservative restoration is contraindicated;
- There is a fractured or missing cusp or incisal edge (a veneer type restoration may also be indicated);
- The majority of the tooth surface is restored but defective;
- There is gross decay on most tooth surfaces;
- The patient has lost significant occlusal vertical dimension with heavily abraded or eroded occlusal surfaces;
- An existing crown demonstrates unacceptable margins, contours, contacts, occlusal anatomy, cosmetics or recurrent caries;
- A tooth is unsightly due to extreme discoloration or malposition (veneer restorations and orthodontics should be considered respectively as well).

A definitive restoration of a tooth that requires endodontic and/or periodontal treatment should be postponed until a favorable prognosis has been established. The crown must be incorporated in the treatment plan in the appropriate sequence in relation to endodontic, periodontal and surgical procedures.

The patient's age, health and general oral health and the patient's wishes and attitude must also be considered. Fixed partial prostheses are indicated for replacement of one or more missing teeth when abutment teeth can be expected to have a reasonable prognosis for years of service. The number, location and character of the abutment teeth and number of pontic replacements must be adequate for the intended purpose of the fixed prosthesis. Retainers must adequately cover the abutments, resist dislodgement and join adjacent retainers with satisfactory connectors.

Crowns and fixed partial prostheses are contraindicated when:

- The necessary operative procedures impair the patient's oral health.
- The operative procedures inhibit growth and development.
- There is no clear rationale for improving or stabilizing present dental function.

### Crowns and Fixed Partial Prosthodontics Quality Evaluation Criteria

ITEM	RATING AND EXPLANATION	
	ACCEPTABLE	NOT ACCEPTABLE
Treatment Planning	<ol style="list-style-type: none"> <li>1. Adequate pretreatment records (radiographs, patient history, diagnostic casts, etc.).</li> <li>2. Root structure and supporting soft and hard tissues adequate to support the prosthesis, and no compromising pathology.</li> </ol>	<ol style="list-style-type: none"> <li>1. Lack of proper pretreatment records.</li> <li>2. Inadequate support for the prosthesis in supporting structures, and/or compromising pathology.</li> </ol>

Surface and Color	<ol style="list-style-type: none"> <li>1. The surface of the restoration is smooth with no irritation of soft tissue.</li> <li>2. There is no <i>significant</i> mismatch in color shade or translucency between the restoration and adjacent teeth (anterior teeth only).</li> </ol>	<ol style="list-style-type: none"> <li>1. Surface is rough, pitted, grossly irregular, very porous or fractured.</li> <li>2. There is a noticeable mismatch between restoration and adjacent teeth (anterior teeth only).</li> </ol>
Anatomic Form and Occlusion	<ol style="list-style-type: none"> <li>1. Restoration contour is in functional harmony with adjacent teeth and soft tissue with good individual anatomic form.</li> <li>2. Size, shape and contour esthetically pleasing, consistent with age, sex and complexion.</li> <li>3. Harmonious occlusion with no premature contacts and no interferences in excursive movements.</li> </ol>	<ol style="list-style-type: none"> <li>1. Restoration is over contoured, under contoured, open contacts, marginal overhang, and damage to tooth, soft tissue, or supporting periodontal tissues, marginal ridges of uneven height.</li> <li>2. Improper size, shape or contour, not consistent with age, sex, and complexion.</li> <li>3. Lack of occlusion, premature contacts—or interference in lateral or protrusive excursions.</li> </ol>
Main Integrity	<ol style="list-style-type: none"> <li>1. Margins nicely finished and well-adapted to the tooth with no clinical or radiographic evidence of opening, overhang or deficiency.</li> <li>2. Margins finished in a cleansable area.</li> </ol>	<ol style="list-style-type: none"> <li>1. Open, thick, short or overhanging margins, visible clinically or radiographically.</li> <li>2. Margins cannot be adequately cleaned.</li> </ol>

### Removable Partial Prosthodontics

Removable partial prosthodontics deals with the replacement of teeth by means of removable appliances that may be either entirely tooth supported or tooth and soft tissue supported. The appliance usually derives its support principally from tissues underlying its base with a lesser amount of support from the remaining teeth. If a removable appliance is used as an interim prosthesis, it may be entirely tissue borne. If it is supported both mesially and distally by abutment teeth, it may be entirely tooth borne. The prostheses should function passively, fit the natural teeth accurately, be well adapted to the soft tissues and provide adequate masticatory function for the patient.

- A removable partial prosthesis is indicated when:
- One or more teeth are to be replaced and a distal abutment is absent.
- Replacement of an anterior tooth or teeth is required immediately following extraction and an acrylic provisional appliance will provide adequate esthetics during healing.
- A provisional appliance is used where a final diagnosis cannot be made.
- It may serve as a more esthetic alternative for replacement of missing anterior teeth.
- Edentulous spans are too extensive and/or resorbed to be successfully restored by fixed partial prostheses.

### Removable Partial Prosthodontics - Quality Evaluation Criteria

ITEM	RATING AND EXPLANATION	
	ACCEPTABLE	NOT ACCEPTABLE
Material	<ol style="list-style-type: none"> <li>1. Non-toxic, color stable, non-porous, esthetically pleasing, satisfactory strength, non-abrasive to opposing dentition.</li> </ol>	<ol style="list-style-type: none"> <li>1. Esthetics not acceptable, abrasive to opposing dentition, allergenic, unrepairable, warps, easily breaks, discolors easily, porous.</li> </ol>
Function	<ol style="list-style-type: none"> <li>1. Functions passively, fits natural teeth accurately, no damage to abutment teeth or periodontal tissues.</li> </ol>	<ol style="list-style-type: none"> <li>1. Inadequate retention, torquing forces on teeth upon insertion and removal, periodontitis, oral pathology, pain in abutment teeth induced by</li> </ol>

	<ol style="list-style-type: none"> <li>2. Stable during function.</li> <li>3. Non-interfering functional occlusion.</li> <li>4. Facilitates oral hygiene.</li> </ol>	<p>wearing appliance.</p> <ol style="list-style-type: none"> <li>2. Displacement during function, unsatisfactory distribution of forces during function or does not aid function.</li> <li>3. Decreased occlusal function, occlusal interferences, tooth movement or appliance contributing to craniomandibular disorder.</li> <li>4. Excessive space between major connector and tissue, doesn't facilitate or prevents adequate oral hygiene.</li> </ol>
Stability	<ol style="list-style-type: none"> <li>1. The prosthesis is firm, steady, resists displacement by functional stresses and is not subject to a change of position when forces are applied.</li> <li>2. Basal areas covered adequately and tissue areas exhibit normal tone.</li> </ol>	<ol style="list-style-type: none"> <li>1. The denture moves or rocks on its basal seat and away from its abutments.</li> <li>2. Basal seat areas inadequately extended, lack of stability, irritated or inflamed basal seat areas.</li> </ol>
Retention	<ol style="list-style-type: none"> <li>1. The prosthesis resists gravity, adhesiveness of foods, forces associated with jaw opening and normal musculature function.</li> <li>2. The appliance provides sufficient clasps, attachments, rests, indirect retainers, connectors and base extensions.</li> <li>3. The prosthesis is passive when fully seated.</li> </ol>	<ol style="list-style-type: none"> <li>1. Excess seating pressure is required to place the partial prostheses. It snaps to place.</li> <li>2. There is insufficient retention causing the prosthesis to be displaced without resistance.</li> <li>3. The retainers are not passive. The base or connectors do not maintain intimate seating with the teeth and soft tissues</li> </ol>

## Standards of Care for Adults and Related MCG Competency Statements

Discipline/Quality Assessment Area	MCG Competency Statement	MCG Competency Assessment
<b>Examination, Diagnosis &amp; Treatment Planning:</b>		
• Medical and Dental History	1, 4, 11	1a, 4b, 11c
• Extraoral Head and Neck Exam	1, 11	1a, 11c
• Intraoral Exam	1, 11	1a, 11c
• Radiographic Exam	1, 11	1a, 11a,b
• Diagnosis	1, 11	1a, 11a-c
• Treatment Planning	1, 12	1a, 12a
• Case Presentation/Consultation	2, 3, 4, 8, 14	2b, 3a, 4b, 8a, 14a
<b>Endodontics:</b>		
• Vital Pulp Therapy	19	19a-b
• Root Canal Therapy	19	19a-b
• Access/Obturation	19	19a-b
<b>Operative Dentistry:</b>		
• Anatomic Form and Occlusion	16	16a-f, i
• Surface and Esthetics	16	16a-f, i
• Periodontal Consideration	18	18a-i
• Endodontic Consideration	19	19a-b
• Treatment Plan and Diagnosis	12	12a
• Pain Control	15	15b
• Marginal Integrity	16	16a-f, i
• Outline Form and Cavity Preparation	16	16a-f, i
<b>Oral &amp; Maxillofacial Surgery:</b>		
• Dental and Medical History and Physical Examination	1, 4, 11	1a, 4b, 11c
• Radiographs	1, 11	1a, 11a,b
• Surgical Considerations	21	21a-b
• Technique	21	21a-b
• Maintenance of Records	7, 11, 14	7a-c, 11a-c, 14a
• Post-Operative Availability	7, 21	7a-c, 21a-b
<b>Orthodontics:</b>		
• Examination and Personal History	1, 4, 11	1a, 4b, 11c
• Diagnostic Aids	1, 11, 23	1a, 11a-c, 23a-b
• Diagnosis and Treatment Plan	1, 11, 23	1a, 11a-c, 23a-b
• Case Presentation/Consultation	2, 3, 4, 8, 14, 23	2b, 3a, 4b, 8a, 14a, 23a-b
• Execution of Treatment Plan	23	23a-b
• Retention and Planned Recall	2, 3, 4, 8, 14, 23	2b, 3a, 4b, 8a, 14a, 23a-b
• Evaluation of Treatment	23, 24	23a-b, 24a-c
• Supervision of Auxiliaries	6, 7	6a-b, 7a-c
<b>Pediatric Dentistry:</b>		
• Dental and Medical History and Patient Examination	1, 4, 11	1a, 4b, 4d, 11c
• Patient & Parent Counseling, Motivation & Prevention	2, 3, 4, 13, 15	2c, 3a-b, 4d, 13c-d
• Diagnosis and Plan of Treatment	1, 11, 12	1a, 11e, 12d
• Control of Pain and Apprehension	15	15c-d
• Preventive Maintenance	11, 13	11e, 13c
• Restorative Treatment	16	16g-h
• Pulp Therapy	19	19a-b
• Periodontics	13, 18	13c, 18a-j

• Removable Prosthodontics	17	17a-c
• Crowns	16	16g
• Oral Surgery	21	21a-b
• Treatment of Traumatized Patients	19	19a-b
• Space Maintenance	23	23a-b
• Interceptive Services	23	23a-b
<b>Periodontics:</b>		
• Gingivitis	18	18a-i
• Periodontitis	18	18a-i
• Mucogingival Abnormalities	18	18a-i
• Supportive Periodontal Treatment	18	18d, 18h
<b>Complete Denture Prosthodontics:</b>		
• Extension	17	17a-c
• Occlusion	17	17a-c
• Stability	17	17a-c
• Retention	17	17a-c
• Esthetics	17	17a-c
<b>Crowns and Fixed Partial Prosthodontics:</b>		
• Treatment Planning	1, 11, 16	1a, 11a-c, 16a-f, i
• Surface and Color	16	16a-f, i
• Anatomic Form and Occlusion	16	16a-f, i
• Margin Integrity	16	16a-f, i
<b>Removable Partial Prosthodontics:</b>		
• Material	17	17a-c
• Function	17	17a-c
• Stability	17	17a-c
• Retention	17	17a-c

**Pediatric Dentistry Case Complete Appointment – Quality Assessment Check List**

<b>Discipline/Quality Assessment Area</b>	<b>Unacceptable</b>	<b>Additional Treatment Needed</b>
<b>Pediatric Dentistry:</b>		
• Dental and Medical History and Patient Examination		
• Patient & Parent Counseling, Motivation & Prevention		
• Diagnosis and Plan of Treatment		
• Control of Pain and Apprehension		
• Preventive Maintenance		
• Restorative Treatment		
• Pulp Therapy		
• Periodontics		
• Removable Prosthodontics		
• Crowns		
• Oral Surgery		
• Treatment of Traumatized Patients		
• Space Maintenance		
• Interceptive Services		
• Vital Pulp Therapy		
• Root Canal Therapy		
• Access/Obturation		
<b>Discomfort:</b>		
<b>Appropriateness of Care:</b>		
<b>Other Comments:</b>		

## Case Complete Appointment – Quality Assessment Check List

Discipline/Quality Assessment Area	Unacceptable	Additional Treatment Needed/Comments
<b>Examination, Diagnosis &amp; Treatment Planning:</b>		
• Medical and Dental History		
• Extraoral Head and Neck Exam		
• Intraoral Exam		
• Radiographic Exam		
• Diagnosis		
• Treatment Planning		
• Case Presentation/Consultation		
<b>Periodontics:</b>		
• Gingivitis		
• Periodontitis		
• Mucogingival Abnormalities		
• Supportive Periodontal Treatment		
<b>Endodontics:</b>		
• Vital Pulp Therapy		
• Root Canal Therapy		
• Access/Obturation		
<b>Operative Dentistry:</b>		
• Anatomic Form and Occlusion		
• Surface and Esthetics		
• Periodontal Consideration		
• Endodontic Consideration		
• Treatment Plan and Diagnosis		
• Pain Control		
• Marginal Integrity		
• Outline Form and Cavity Preparation		
<b>Crowns and Fixed Partial Prosthodontics:</b>		
• Treatment Planning		
• Surface and Color		
• Anatomic Form and Occlusion		
• Margin Integrity		
<b>Removable Partial Prosthodontics:</b>		
• Material		
• Function		
• Stability		
• Retention		
<b>Complete Denture Prosthodontics:</b>		
• Extension		
• Occlusion		
• Stability		
• Retention		
• Esthetics		
<b>Oral &amp; Maxillofacial Surgery:</b>		
• Dental & Medical History & Physical Examination		
• Radiographs		
• Surgical Considerations		
• Technique		
• Maintenance of Records		
• Post-Operative Availability		
<b>Discomfort:</b>		
<b>Appropriateness of Care:</b>		
<b>Other Comments:</b>		

## Orthodontic Case Complete Appointment – Quality Assessment Check List

Discipline/Quality Assessment Area	Unacceptable	Additional Treatment Needed/Comments
<b>Orthodontics:</b>		
• Examination and Personal History		
• Diagnostic Aids		
• Diagnosis and Treatment Plan		
• Case Presentation/Consultation		
• Execution of Treatment Plan		
• Retention and Planned Recall		
• Evaluation of Treatment		
• Supervision of Auxiliaries		
<b>Discomfort:</b>		
<b>Appropriateness of Care:</b>		
<b>Other Comments:</b>		