Restorative Dentistry
Index of Treatment Need

Complexity Assessment

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Funded by the Department of Health
Administered through the Clinical Effectiveness Committee R.C.S. Eng.
1. Introduction

The complexity assessment is an important component of the Restorative Dentistry Index of Treatment Need. Following a clinical examination it can be used to assess the complexity of the treatment problem identified. Each component of the assessment should be considered separately and may be the only relevant component for that patient.

A complexity code should be assigned, if applicable, before progressing to the next component. Each complexity component has a series of three core codes (low - 1 : moderate - 2 : high - 3) to which a modifying factor may apply. Modifying factors are similar for each component of the index although there are minor variations; they should be applied to each component of the assessment. A modifying factor can only increase a complexity score by one code increment, they are not cumulative. Following completion of coding the overall restorative dentistry complexity code would be represented by the highest component code. For example a patient who presents, following assessment, with a periodontal treatment complexity code of 2, a root canal treatment code of 3, incorporating a retreatment modifying factor, and no coding applicable for prosthodontics, would have a restorative dentistry complexity code of 3.
2. Assessment Procedure

Periodontal Assessment (if relevant) + modifying factor (if applicable)

Periodontal Treatment Complexity Code

R.C.T. Assessment (if relevant) + modifying factor (if applicable)

R.C.T. Complexity Code

Fixed Prosthodontics Assessment (if relevant) + modifying factor (if applicable)

Fixed Prosthodontics Complexity Code

Removable Prosthodontics Assessment (if relevant) + modifying factor (if applicable)

Removable Prosthodontics Complexity Code

Highest Code = Restorative Dentistry Complexity Code
3. Terminology

The complexity codes use certain terminology in defining the scoring criteria:

1. **BPE - Basic Periodontal Examination**

   The Basic Periodontal Examination requires that the periodontal tissue should be examined with a standardised periodontal probe using light pressure, examine the tissues for bleeding, plaque retentive factors and pocket depth:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No bleeding or pocketing detected</td>
</tr>
<tr>
<td>1</td>
<td>Bleeding on probing - no pocketing &gt; 3.5mm</td>
</tr>
<tr>
<td>2</td>
<td>Plaque retentive factors present - no pocketing &gt; 3.5mm</td>
</tr>
<tr>
<td>3</td>
<td>Pockets &gt; 3.5mm but &lt; 5.5mm in depth</td>
</tr>
<tr>
<td>4</td>
<td>Pockets &gt; 5.5mm in depth</td>
</tr>
</tbody>
</table>

   In the BPE all teeth are examined and the worst (highest) score in each sextant is recorded.

2. **Anterior Guidance**

   Anterior Guidance is the anterior determinant of mandibular movement. It can be provided by any tooth or group of teeth that guide forward or lateral movement of the mandible.

3. **Conformative Treatment**

   Conformative dental treatment is treatment that conforms to the existing intercuspal position.

4. **Reorganised Dental Treatment**

   Reorganised treatment is dental treatment that changes the existing intercuspal position.

5. **Terminal Unit**

   The terminal unit is the most distal tooth in any quadrant.
4. Patient Data Collection Sheet

At the Periodontal Assessment, following your clinical examination, choose the relevant Periodontal code (purple pages), apply any applicable modifying factor and record the overall Periodontal Treatment Complexity Code. The same procedure is adopted for Root Canal Treatment Assessment (green pages), Fixed and Removable Prosthodontics Assessments (pink and blue pages). If a permanent record of the assessment is required, each section of the procedure may be recorded on a photocopy and retained with the case notes.
5.1 Periodontal Treatment Assessment

Based upon the Basic Periodontal Examination (BPE) Criteria.

- B.P.E. Score 1 - 3 in any sextant = Complexity 1

- B.P.E. Score of 4 in any sextant = Complexity 2

- Surgery involving the periodontal tissues

- Surgical procedures associated with osseointegrated implants

- Surgical procedures involving periodontal tissue augmentation and/or bone removal (e.g. Crown lengthening surgery).

- B.P.E. score of 4 in any sextant and including one or more of the following factors:
  - Patients under the age of 35
  - Smoking 10+ cigarettes daily
  - A concurrent medical factor that is directly affecting the periodontal tissues
  - Root morphology that adversely affects prognosis
  - Rapid periodontal breakdown
    - > 2mm attachment loss in any one year = Complexity 3
**Modifying Factors that are relevant to Periodontal treatment**

A modifying factor can only increase complexity by one increment. Multiple factors are not cumulative.

- Co-ordinated medical (e.g. renal : cardiac) and/or dental (e.g. oral surgery : orthodontic) multi disciplinary care
- Medical history that significantly affects clinical management *(See below)*
- Special needs for the acceptance or provision of dental treatment
- Mandibular dysfunction
- Atypical facial pain
- Undiagnosed facial pain
- Presence of a retching tendency
- Limited operating access
- Concurrent mucogingival disease (e.g. Erosive Lichen Planus)

**Medical History that Significantly Affects Clinical Management**

- Patients requiring IM or IV medication as a component of clinical management.
- Patients with a history of head/neck radiotherapy.
- Patients who are significantly immuno compromised or immuno suppressed.
- Patients with a significant bleeding dyscrasia/disorder.
- Patients with a potential drug interaction.
5.2 Root Canal Treatment Assessment

Root Canal Treatment Assessment (Permanent Teeth)

Conventional root canal treatment or retreatment is the clinical procedure of choice. Surgical treatment should only be considered when conventional treatment is inappropriate.

- Single/Multiple root canals with curvature $< 15^\circ$ to root axis that are considered negotiable from radiographic or clinical evidence through their entire length. No root canal obstruction or damaged access

- Incision and drainage

- Single/multiple root canals with curvature $> 15^\circ$ but $< 40^\circ$ to root axis that are considered negotiable from radiographic or clinical evidence through their entire length.

- Teeth with incomplete root development

- Single/multiple root canals with curvature $> 40^\circ$

- Single/multiple root canals that are **NOT** considered negotiable from radiographic or clinical evidence through their entire length

- Periradicular surgery

- Teeth with iatrogenic damage or pathological resorption

- Teeth with difficult root morphology

= Complexity 1

= Complexity 2

= Complexity 3
Modifying Factors that are relevant to Root Canal Treatment

A modifying factor can only increase complexity by one increment. Multiple factors are not cumulative.

- Co-ordinated medical (e.g. renal : cardiac) and/or dental (e.g. oral surgery: orthodontic) multi disciplinary care
- Medical history that significantly affects clinical management (See Below)
- Special needs for the acceptance or provision of dental treatment
- Mandibular dysfunction
- Atypical facial pain
- Undiagnosed facial pain
- Presence of a retching tendency
- Limited conventional or surgical operating access
- Endodontic retreatment
- Surgery in the proximity of important anatomical structures e.g. mental foramen
- Surgery where there is periodontal pocketing > 3.5 mm

Medical History that Significantly Affects Clinical Management

- Patients requiring IM or IV medication as a component of clinical management.
- Patients with a history of head/neck radiotherapy.
- Patients who are significantly immuno compromised or immuno suppressed.
- Patients with a significant bleeding dyscrasia/disorder.
- Patients with a potential drug interaction.
5.3 Fixed Prosthodontics Treatment Assessment

This basic assessment assumes that the proposed restorative dental treatment will conform to the existing occlusion. The principles apply to conventional and adhesive units.

Fixed Prosthodontic restorations include:

- Intra coronal restorations
- Veneer restorations
- Extra coronal restorations including pontic units

- Restorations not involved in anterior guidance, where there are adequate sound or restored teeth to predictably maintain the existing occlusion
  = Complexity 1

- Restorations that contribute to anterior guidance where there are insufficient sound or restored teeth to predictably maintain the current guidance
  = Complexity 2

- Extra coronal restoration of any one posterior sextant (all teeth), not involved in anterior guidance where a terminal unit is involved

- Extra coronal restoration of the complete anterior guidance including pontic units.
  = Complexity 3

- Extra coronal restoration of opposing sextants (all teeth).

- Restorations that are supported by osseointegrated implants
Modifying Factors that are relevant to Fixed Prosthodontics

A modifying factor can only increase complexity by one increment. Multiple factors are not cumulative.

- Co-ordinated medical (e.g. renal : cardiac) and/or dental (e.g. oral surgery : orthodontic) multi disciplinary care
- Medical history that significantly affects clinical management *(See Below)*
- Special needs for the acceptance or provision of dental treatment
- Mandibular dysfunction
- Atypical facial pain
- Undiagnosed facial pain
- Skeletal base alveolar discrepancy that adversely affects the occlusion
- Presence of a retching tendency
- Evidence of significant parafunction
- Limited operating access
- Concurrent Mucogingival disease (e.g Erosive Lichen Planus): Xerostomia
- Reorganisation of the occlusion required
- Alteration in the occlusal vertical dimension required
- Radiographic evidence of 50% reduction in bone support.

Medical History that Significantly Affects Clinical Management

- Patients requiring IM or IV medication as a component of clinical management.
- Patients with a history of head/neck radiotherapy.
- Patients who are significantly immuno compromised or immuno suppressed.
- Patients with a significant bleeding dyscrasia/disorder.
- Patients with a potential drug interaction.
5.4 Removable Prosthodontics Treatment Assessment

This assessment applies to the partially denate patient, the edentate patient is excluded. Basic assessment assumes that the proposed treatment will conform to the existing occlusion.

- Prostheses with bounded saddles replacing posterior teeth.
- All mucosal born prostheses.
- Prostheses replacing anterior teeth where there are adequate sound or restored teeth to provide anterior guidance

= Complexity 1

- Free end saddle prostheses which are dependent upon differential support.
- Prostheses with problems involving the path of insertion and/or available undercuts where some tooth modification is involved
- Prostheses which contribute to anterior guidance

= Complexity 2

- Prostheses where abutment teeth require extra coronal restoration to improve stability and retention.
- The use of sectional prostheses
- Prostheses involving osseo integrated implant support
- Presence of oro-facial defects requiring obturation/restoration

= Complexity 3
Modifying Factors that are relevant to Removable Prosthodontics

A modifying factor can only increase complexity by one increment. Multiple factors are not cumulative.

- Co-ordinated medical (e.g. renal : cardiac) and/or dental (e.g. oral surgery : orthodontic) multi disciplinary care
- Medical history that significantly affects clinical management *(See below)*
- Special needs for the acceptance or provision of dental treatment
- Mandibular dysfunction
- Atypical facial pain
- Undiagnosed facial pain
- Skeletal base alveolar discrepancy that adversely affects the occlusion
- Presence of a retching tendency
- Evidence of significant parafunction
- Limited operating access
- Concurrent Mucogingival disease (e.g. Lichen Planus) : Xerostomia
- Reorganisation of the occlusion required
- Alteration in the occlusal vertical dimension required

Medical History that Significantly Affects Clinical Management

- Patients requiring IM or IV medication as a component of clinical management.
- Patients with a history of head/neck radiotherapy.
- Patients who are significantly immuno compromised or immuno suppressed.
- Patients with a significant bleeding dyscrasia/disorder.
- Patients with a potential drug interaction.