

DEN 491
1429-1430 H (2008-2009)

Inter-Disciplinary Treatment Planning

Treatment Planning: is a logical sequence of treatment designed to restore the patient's dentition to maintain a good health with an optimal function & appearance.

The Treatment Planning Process:

- I. Information Gathering.
- II. Analyzing the Gathered Information and Diagnoses.
- III. Developing the Treatment Plan.

I. Information Gathering:

A. Patient History

The two primary methods for obtaining a patient history are (1) questionnaires and forms (2) patient interviews.

Components of a patient History

- 1- Demographic Data.
- 2- Chief Complaint and History.
- 3- Medical History. Past and present illnesses. Some systemic diseases may affect the oral cavity as well as the patient's response to dental treatment. It should also include the Family History.
- 4- Past Dental History.
- 5- Patient Attitude.
- 6- Dental care habits
- 7- Diet Analysis.

B. Clinical Examination

- 1- Extra oral Examination:
 - a. Regional Lymph Nodes
 - b. Major Salivary Glands
 - c. Temporomandibular Joint
 - d. Muscles of Mastication
 - e. Lips (tooth exposure)
- 2- Intra oral Examination:
 - a. Soft tissues.
 - b. Gingiva & Periodontium.
 - c. Dentition.
 - d. Occlusion. (General Alignment of Teeth, Lateral & Protrusive Contacts, Centric Relation, Jaw Maneuverability and Interarch space)
 - e. Oral Hygiene.

C. Radiographic Examination

D. Supplementary Examinations

1. Percussion test
2. Palpation test
3. Thermal test
4. Study Cast. Articulating (Mounting).
 Diagnostic Wax-up.
5. Biopsy

II. Analyzing the Gathered Information and Diagnosis:

1. Etiology.
2. Diagnosis. (Diagnosis are precise, scientific terms used to describe variations from normal)
3. Problem Lists for Patients.
4. Patient needs.

5. Priority and Urgency.
6. Treatment Objectives. Treatment is required to accomplish one or more of the following objectives:
 - a. Correct existing disease
 - b. Prevent future disease
 - c. Restore function
 - d. Improve appearance
7. Treatment Options.
8. Prognosis. (The term prognosis refers to an estimation of the likelihood of a favorable outcome for a disease and usually expressed in such general terms as "excellent", "good", "favorable", "unfavorable", "poor")
9. Presenting Treatment Plans and Reaching Consensus with the Patient.

Documentation:

- All examination results and diagnosis must be clearly documented in the patient's record. (progress notes, or chronologic record of treatment)
- Dental chart.

III. Developing the Treatment planing:

- Phase I: Emergency.
- Phase II: Disease Control
- Phase III: Definitive Treatment
- Phase V: Maintenance

When preparing to treat a patient with complex needs, the dentist may find it advantageous to break the treatment plan into phases. Sorting treatment into phases helps the clinician organize the plan and improve overall prognosis of the case. In addition, patients often comprehend a complicated treatment plan more easily when it is separated into parts. The four general categories of phasing are: emergency phase, disease control phase, definitive treatment phase, and maintenance care phase.

Dentist should concenter a thorough evaluation of the patient's health history and any procedures necessary to manage the patient's general and psychological health before or during dental treatment. This may include consultation with other health providers, antibiotic prophylaxis, stress and fear management, avoidance of certain medications and products (e.g., latex), and any other precautions necessary to deliver treatment safely to patients with serious general health problems.

Emergency Phase. The purpose of an emergency phase of treatment is to resolve any symptomatic problems that a patient may present with. Any number of patient problems may require attention during this phase. Common complaints include pain, swelling, infection, broken teeth, and missing restorations. Possible emergency phase treatments include extractions, endodontic therapy, initial periodontal therapy, placement of temporary or permanent restorations, and prostheses repair. The dentist may also choose to prescribe medications to control pain and infection.

Disease Control Phase. The goal of the disease control phase is to control active oral disease and infection, stop occlusal and esthetic deterioration, and manage any risk factors that cause oral problems. Common procedures during the disease control phase include oral hygiene instruction, scaling and root planing, caries risk assessment and prevention, endodontic therapy, extraction of hopeless teeth, and operative treatment to eradicate dental caries.

A disease control phase can be valuable when the dentist is uncertain about disease severity, available treatment options, or patient commitment to treatment. The success or failure of a disease control phase is evaluated with a posttreatment assessment examination before proceeding with definitive treatment procedures.

Definitive Treatment Phase. Definitive treatment aims to rehabilitate the patient's oral condition and includes procedures that improve appearance and function. Depending on the patient, several procedures in the various disciplines of dentistry, such as prosthodontics, periodontics, and endodontics, may be required. Examples of definitive treatment procedures include the following:

- Additional periodontal treatment, including periodontal surgery
- Orthodontic treatment and occlusal therapy
- Oral surgery (elective extractions, preprosthetic surgery, and orthognathic surgery)
- Elective (nonacute) endodontic procedures
- Single tooth restorations
- Replacement of missing teeth with fixed or removable prosthodontics, including implants
- Cosmetic or esthetic procedures (composite bonding, veneers, bleaching)

Maintenance Care Phase. Without a plan to periodically reevaluate the patient and provide supportive care, the patient's oral condition may relapse and disease may recur. The maintenance phase is more than a "check-up every 6 months"; rather, it constitutes a highly personalized plan that strives to maintain the patient in optimum oral health. Maintenance phase procedures may include periodic examinations, periodontal maintenance treatment, application of fluoride, and oral hygiene instruction.

Documentation:

- The Dentist must document the proposed treatment plan and any alternatives presented to the patient.
- Treatment Planing form.

Treatment planing example

The following are the documentation of an actual case to give you a general idea about the treatment planing process. It is **only an example**.

I. Information Gathering:

Clinical History	
Item	Example
1- Demographic Data	- Age : 23 years old - Level of education: High school - Occupation: Secretary in a health institute - Gender: Male - Socioeconomic status: Middle - Marital Status: Married.
2- Chief Complaint	“I want to fix my teeth “
3- History of CC.	Teeth were decayed, extracted & haven't been restored or replaced since 10 years ago
4- Medical History	No abnormality dedicated (NAD). Family History: NAD
5- Past Dental History	- Multiple extractions 10 years ago. - Last dental visit was last week for RCT. - Provisional restorations 7 months ago. - No complication with previous local anesthesia or extraction
6- Patient Attitude	- Cooperative patient. - Willing to come regularly to his appointments.
7- Dental care habits	- Tooth Brush: Twice a day. - Flossing: None. - Non-smoker. - Miswak: Always. - Mouth Wash: None.
8- Diet Analysis	- Eats three meals a day. - Drinks one Pepsi a day. - Drinks one cup of tea (with one spoon of sugar). - Drinks one cup of milk occasionally.

Clinical Examination																					
Item	Example																				
1- Extra oral Examination	<ul style="list-style-type: none"> • Normal extraoral features (medium body built) • No lymphadenopathy. • Symmetrical face, straight profile • Skin, lips, eye, major salivary gland, TMJ, thyroid gland, within normal. 																				
2- Intra oral Examination:																					
A. Soft tissues :	Labial mucosa, buccal mucosa, hard palate, soft palate, tongue and floor of mouth were without remarkable finding upon examination.																				
B. Gingiva & Periodontium:	<ul style="list-style-type: none"> • Generalized accumulation of visible plaque. • Slight calculus deposits. • Healthy gingiva: <ul style="list-style-type: none"> ○ fine margin, pointed IDP. ○ pink in color ○ stippled attached gingiva 3-4 mm in width ○ firm in consistency. • Pocket depth 2 – 3 mm. 																				
C. Dentition:	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;">#18 Occlusal Caries</td> <td style="width: 50%; border: none;">#17 Occlusal.+Mesial+Cervical caries</td> </tr> <tr> <td style="border: none;">#16 Missing</td> <td style="border: none;">#15 Extensively distracted & temporary restoration.</td> </tr> <tr> <td style="border: none;">#13 #11#21 #22 Cervical Caries</td> <td style="border: none;">#11#21 M. Caries</td> </tr> <tr> <td style="border: none;">#12 Comp with recurrent caries</td> <td style="border: none;">#24 Extensively distracted & temporary restoration</td> </tr> <tr> <td style="border: none;">#25 Missing</td> <td style="border: none;">#26 Extensively distracted & temporary restoration</td> </tr> <tr> <td style="border: none;">#38 Occ. Caries</td> <td style="border: none;">#37 Extensively distracted & temporary restoration</td> </tr> <tr> <td style="border: none;">#36 Missing</td> <td style="border: none;">#35 Rotated</td> </tr> <tr> <td style="border: none;">Spacing :#33&34</td> <td style="border: none;">#44 Missing</td> </tr> <tr> <td style="border: none;">#45 Rotated</td> <td style="border: none;">#46 #47 Extensively destructed & temporary restoration</td> </tr> <tr> <td style="border: none;">#48 Occ. caries</td> <td style="border: none;"></td> </tr> </table>	#18 Occlusal Caries	#17 Occlusal.+Mesial+Cervical caries	#16 Missing	#15 Extensively distracted & temporary restoration.	#13 #11#21 #22 Cervical Caries	#11#21 M. Caries	#12 Comp with recurrent caries	#24 Extensively distracted & temporary restoration	#25 Missing	#26 Extensively distracted & temporary restoration	#38 Occ. Caries	#37 Extensively distracted & temporary restoration	#36 Missing	#35 Rotated	Spacing :#33&34	#44 Missing	#45 Rotated	#46 #47 Extensively destructed & temporary restoration	#48 Occ. caries	
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E. Oral Hygiene:	<ul style="list-style-type: none"> - Fair oral hygiene - Plaque index: 65% - Bleeding index: 45% 																				

Radiographic Examination		
Item	Example	
1. Periapicals:	#16 missing #45 rotated #44 Missing #11,#21 M Caries #25 Missing #37 Large rest. #35 Rotated	#15 Endo treated tooth #46 #47 Large restoration. #12 Comp. #24 Endo treated tooth with over filling GP #26 Large restoration #36 Missing Spacing : #33 & 34
2. Panoramic:	Milled Flattening of Anterior Articular surface of right condyle.	

Supplementary Examinations		
Item	Example	
1. Thermal test	Cold test: #26,37,46,47 normal	
2. Percussion test	#14,26,37,46,47 No tenderness to percussion #24 +ve (tender to percussion)	
3. Palpation test	#24 +ve	
4. Mounted Diagnostic Cast	- Class I - Supra eruption #26, 27, 34, 35. - Vertical over lap = 1mm - Canine guidance.	- Midline shift toward the right - Cross bite in #35 #37 - Horizontal over lap = 3mm

II. Analyzing the Gathered Information and Diagnosis:

Item	Example
Etiology	- Dietary imbalance. - Fair oral hygiene. - Delayed replacement of extracted teeth.
Diagnosis	- Plaque induced gingivitis. - Dental caries as mentioned in dental charting. - Chronic apical periodontitis #24. - Midline shift toward the right & posterior occlusal collapse. - Missing teeth #16, 25 & 36. - Inadequate coronal restoration #14.
Treatment Objectives	1. Modify the behavior of the patient by motivating him to improve his oral hygiene and dietary habits. 2. Control infection: caries and periapical lesion. 3. Restore function and esthetics. 4. Correct occlusal plane.
Treatment Option	1st Choice: - Right Maxillary Sinus Lift - Segmental Osteotomy #34 & 35 Or Orthodontic Intrusion - Implant prostheses #16, 26, 36 areas. - Ortho treatment for anterior teeth 2nd Choice: Elective RCT and crown lengthening, then fixed prosthodontics. After consultation, the case was discussed with the patient, the 2nd option was selected.
Prognosis	Good. The patient has responded well to oral hygiene instructions & exhibits a very good effort to improve his chances for a successful rehabilitation.

III. Treatment planing:

Item	Example
Phase I: Emergency	None.
Phase I: Disease Control	<ul style="list-style-type: none"> • Case presentation to the patient. <ul style="list-style-type: none"> ▪ Motivation & education. ▪ Treatment need & longevity. ▪ Cost of treatment. • OHI & periodontal therapy. • Perio & Prosthodontic & Orthodontic Consultation • Endodontic therapy : RCT: #15, 26, 37, 34, 35, 46, 47 • Restorative therapy: Ama. restoration: #18,38,48, Comp. restoration: #13, 12, 11, 21
Phase III: Definitive Treatment	<ul style="list-style-type: none"> • Surgical therapy: Apicoectomy: #24 Crown lengthening: #24, 26, 36, 37, 46, 47 Gingivectomy: #17 • Cast post & core: # 14, 24, 26, 37, 35, 34, 46, 47. • MC FPD: #14 – 16 #24 – 26 #35 - 37 • MC crown: #34, 46, 47.
Phase V: Maintenance	every 3-6 months